REGION 6
1201 ELM STREET, SUITE 500
DALLAS, TEXAS 75270

NPDES Permit No TX0134002

AUTHORIZATION TO DISCHARGE UNDER THE

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Clean Water Act, as amended, (33 U.S.C. 1251 et. seq; the "Act"),

Corpus Christi Liquefaction, LLC
700 Milam St. Suite 1900
Houston, TX 77002

is authorized to discharge from a facility located at No. 2822 La Quinta Road (at La Quinta Channel), Gregory, San Patricio County, Texas

from outfalls described on the attached table

in accordance with this cover page and the effluent limitations, monitoring requirements, and other conditions set forth in Part I, Part II and Part III hereof.

This is a modification of a current permit, prepared by Maria Okpala, Environmental Engineer, Permitting Section (6WQ-PP), and shall become effective on September 1, 2020

This permit and the authorization to discharge shall expire at midnight, May 31, 2025

Issued on July 30, 2020

Charles Maguire

Charles W. Maguire
Director
Water Division (WD)

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PERMIT OUTFALL TABLE

Outfall Reference Number	Discharge Coordinates Latitude Deg° Min' Sec" Longitude Deg° Min' Sec"	Average Flow MGD	Wastewater Discharge	Receiving Water	Segment #
101	27° 53' 7" N 97° 16' 27" W	0.019	Sanitary treatment plant	Outfall 001, thence to La Quinta Channel to Corpus Christi Bay	2481
001	27° 52' 57" N 97° 16' 3" W	0.719	Reverse Osmosis Reject water, Inlet Air chillers, Incidental utility wastewater/stormwater, sanitary treatment plant	La Quinta Channel to Corpus Christi Bay	2481
201	27° 53' 23.58" N 97° 16' 21.39" W	0.2	Inlet Air Chillers	Outfall 002, thence to La Quinta Channel to Corpus Christi Bay	2481
202	27° 53' 25.48" N 97° 16' 14.52" W	0.2	Inlet Air Chillers	Outfall 002, thence to La Quinta Channel to Corpus Christi Bay	2481
203	27° 53' 27.62" N 97° 16' 07.28" W	0.2	Inlet Air Chillers	Outfall 002, thence to La Quinta Channel to Corpus Christi Bay	2481
002	27° 53' 29" N 97° 16' 34" W	6	Hydrostatic test/flush water, Fire Hydrant flush water, Fin fan wash water, Amine system flush water, Inlet Air Chillers	La Quinta Channel to Corpus Christi Bay	2481
003	27° 53' 10" N 97° 16' 29" W	Varies	Hydrostatic test/flush water, Fire hydrant flush water, Fin fan wash water	La Quinta Channel to Corpus Christi Bay	2481
004	27° 52' 54" N 97° 16' 30" W	Varies	Hydrostatic test/flush water, Fire hydrant flush water, Vehicle wash water	La Quinta Channel to Corpus Christi Bay	2481
005	27° 52' 56" N 97° 16' 12" W	Varies	Hydrostatic test/flush water, Fire hydrant flush water	Corpus Christi Bay via on-site ditch	2481
006	27° 52' 55" N 97° 16' 1" W	Varies	Hydrostatic test/flush water, Fire hydrant flush water	Corpus Christi Bay via on-site ditch	2481
007	27° 52' 54" N 97° 15' 59" W	Varies	Hydrostatic test/flush water, Fire hydrant flush water	Corpus Christi Bay via on-site ditch	2481
008	27° 53' 6" N 97° 16' 28" W	0.019	Sanitary treatment plant	Corpus Christi Bay via on-site ditch or plant sump	2481
009	27° 52' 50" N, 97° 16' 12" W	<0.1	Fire water system flush water	La Quinta Channel to Corpus Christi Bay	2481

Outfall Reference Number	Discharge Coordinates Latitude Deg° Min' Sec" Longitude Deg° Min' Sec"	Average Flow MGD	Wastewater Discharge	Receiving Water	Segment #
010	27° 52' 48" N, 97° 15' 57" W	<0.1	Fire water system flush water	La Quinta Channel to Corpus Christi Bay	2481

PART I – REQUIREMENTS FOR NPDES PERMITS

SECTION A. LIMITATIONS AND MONITORING REQUIREMENTS

1. Internal Outfall 101 – Sanitary Treatment Plant – 0.019 MGD Average Flow

During the period beginning on the effective date of the permit and lasting through the expiration date, the permittee is authorized to discharge treated wastewater from the Sanitary Treatment Plant (internal Outfall 101) into Outfall 001, thence to La Quinta Channel of Corpus Christi Bay, Water Body Segment Code No. 2481 of the of the Bays and Estuaries. Such discharges shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTICS		DISCHARGE LIMITATIONS Standard Units		MONITORING REQUIREMENTS	
POLLUTANT	STORET CODE	MINIMUM	MAXIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE
pH	00400	6.0	9.0	Twice/month (*1)	Grab

EFFLUENT CHARACTERISTICS		DISCHARGE LIMITATIONS lbs/day, unless noted		mg/l, unless noted		MONITORING REQUIREMENTS	
POLLUTANT	STORET CODE	MON AVG	DAY MAX	MON AVG	DAY MAX	MEASUREMENT FREQUENCY	SAMPLE TYPE
Flow	50050	Report MGD	Report MGD	N/A	N/A	Continuous	Flow Meter
BOD5	00310	9.01	13.51	30	45	Twice/month (*1)	Grab
TSS	00530	9.01	13.51	30	45	Twice/month (*1)	Grab
Enterococci, CFU/100 mL	61211	N/A	N/A	35	130	Twice/month (*1)	Grab

Footnote:
*1 For any monitoring period, samples shall be taken at least seven (7) days from the first sample of the previous monitoring period.

2. Outfall 001 – Reverse Osmosis Reject Water, Inlet Air Chillers, Incidental Utility Wastewater/Stormwater & Sanitary Treatment Plant– 0.719MGD Average Flow

During the period beginning on the effective date of the permit and lasting through the expiration date, the permittee is authorized to discharge treated reverse osmosis reject water, Inlet Air Chillers, incidental utility wastewater, stormwater & Sanitary Treatment Plant from Outfall 001, thence to La Quinta Channel of Corpus Christi Bay, Water Body Segment Code No. 2481 of the of the Bays and Estuaries. Such discharges shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTICS		DISCHARGE LIMITATIONS Standard Units		MONITORING REQUIREMENTS	
POLLUTANT	STORET CODE	MINIMUM	MAXIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE
pH	00400	6.5	9.0	Twice/month (*1)	Grab

EFFLUENT CHARACTERISTICS		DISCHARGE LIMITATIONS lbs/day, unless noted		DISCHARGE LIMITATIONS mg/l, unless noted		MONITORING REQUIREMENTS	
POLLUTANT	STORET CODE	MON AVG	DAY MAX	MON AVG	DAY MAX	MEASUREMENT FREQUENCY	SAMPLE TYPE
Flow	50050	Report MGD	Report MGD	N/A	N/A	Continuous	Flow Meter
Total Residual Chlorine	50060	N/A	N/A	N/A	19 µg/l (*2)	Twice/month (*1)	Grab

EFFLUENT CHARACTERISTICS	DISCHARGE MONITORING	MONITORING REQUIREMENTS	
WHOLE EFFLUENT TOXICITY (7day. Chronic Static Renewal) (*3)	VALUE	MEASUREMENT FREQUENCY	SAMPLE TYPE
Menidia beryllina	Report	Once/Quarter	24-Hr Composite
Mysidopsis bahia	Report	Once/Quarter	24-Hr Composite

Footnotes:

*1 For any monitoring period, samples shall be taken at least seven (7) days from the first sample of the previous monitoring period.

*2 If any individual analytical test result is less than the MQL listed, a value of zero (0) may be used for that pollutant result for the Discharge Monitoring Report (DMR) calculations and reporting requirements. 33 µg/l is defined as the Minimum Quantification level (MQL) for Total Residual Chlorine. See Section B of Part II.

*3 Monitoring and reporting requirements begin on the effective date of this permit. See PART I, and Part II, Whole Effluent Toxicity Testing Requirements for additional WET monitoring and reporting conditions.

3a. Internal Outfalls 201, 202, 203 – Inlet Air Chillers – 0.6 MGD Total Average Flow; 0.2MGD from each Outfall

During the period beginning on the effective date of the permit and lasting through the expiration date, the permittee is authorized to discharge treated discharge from Inlet Air Chillers (internal Outfall 201, 202, & 203) into Outfall 002, thence to La Quinta Channel of Corpus Christi Bay, Water Body Segment Code No. 2481 of the of the Bays and Estuaries. Such discharges shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTICS		DISCHARGE LIMITATIONS Standard Units		MONITORING REQUIREMENTS	
POLLUTANT	STORET CODE	MINIMUM	MAXIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE
pH	00400	6.0	9.0	Twice/month (*1)	Grab

EFFLUENT CHARACTERISTICS		DISCHARGE LIMITATIONS lbs/day, unless noted		DISCHARGE LIMITATIONS mg/l, unless noted		MONITORING REQUIREMENTS	
POLLUTANT	STORET CODE	MON AVG	DAY MAX	MON AVG	DAY MAX	MEASUREMENT FREQUENCY	SAMPLE TYPE
Flow	50050	Report MGD	Report MGD	N/A	N/A	Continuous	Flow Meter

Footnote:
*1 For any monitoring period, samples shall be taken at least seven (7) days from the first sample of the previous monitoring period.

3b. Outfalls 002 – Inlet Air Chillers*9, Hydrostatic test/flush water, Fire hydrant flush water, Fin fan wash water, Amine system flush water- 6 MGD Average Flow

During the period beginning on the effective date of the permit and lasting through the expiration date, the permittee is authorized to discharge treated discharge of Inlet Air Chillers (via internal Outfall 201, 202, & 203), Hydrostatic test/flush water, Fire Hydrant flush water, Fin fan wash water, Amine system flush water from Outfall 002, thence to La Quinta Channel of Corpus Christi Bay, Water Body Segment Code No. 2481 of the of the Bays and Estuaries. Such discharges shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTICS		DISCHARGE LIMITATIONS Standard Units		MONITORING REQUIREMENTS	
POLLUTANT	STORET CODE	MINIMUM	MAXIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE
pH	00400	6.5	9.0	Daily (*1)	Grab

EFFLUENT CHARACTERISTICS		DISCHARGE LIMITATIONS lbs/day, unless noted		DISCHARGE LIMITATIONS mg/l, unless noted		MONITORING REQUIREMENTS	
POLLUTANT	STORET CODE	MON AVG	DAY MAX	MON AVG	DAY MAX	MEASUREMENT FREQUENCY	SAMPLE TYPE
Flow	50050	Report MGD (*2)	Report MGD (*2)	N/A	N/A	Daily (*1)	Estimate (*3)
Oil & Grease	00556	Report	Report	N/A	15	Daily (*1)	Grab
Total Residual Chlorine	50060	N/A	N/A	N/A	0.019	Daily (*1, *6)	Grab
Total Suspended Solids	00530	Report	Report	30	45	Daily (*1)	Grab
Total BTEX *4 *5	30383	N/A	N/A	N/A	100 µg/L	Daily (*1)	Grab
Total Organic Carbon (TOC) *5	00680	N/A	N/A	N/A	50	Daily (*1)	Grab

EFFLUENT CHARACTERISTICS	DISCHARGE MONITORING	MONITORING REQUIREMENTS	
WHOLE EFFLUENT TOXICITY TESTING/LIMIT (48-Hour Acute Static Renewal/NOEC) *7, *8)	VALUE	MEASUREMENT FREQUENCY	SAMPLE TYPE
Mysidopsis bahia	80%	Once/ Quarter (*1)	24-Hr Composite
Menidia beryllina	Report	Once/Quarter (*1)	24-Hr Composite

Footnotes:

*1 When discharging.

*2 The discharge flow rate shall be controlled to prevent the erosion of soils, to minimize the disturbance and re-suspension of bottom sediments and to avoid adverse impact to any wetlands or other materials and the consequent addition of suspended solids to the discharge. Contact with unvegetated or disturbed ground surfaces shall be avoided.

*3 "Estimate" flow measurements shall not be subject to the accuracy provisions established at Part III.C.6. Flow may be estimated using best engineering judgment.

*4 BTEX shall be measured as the sum of benzene, toluene, ethylbenzene, and total xylene (including ortho-, meta-, and para-xylene) as quantified by EPA methods 601, 602, 624, or 1624.

*5 TOC and BTEX limits shall apply only to discharges of hydrostatic test/flush water from existing pipelines and tanks that have been in-service.

*6 TRC requirements shall only apply when potable water is used and/or chlorine is added.

*7 Compliance with the limit, monitoring, and reporting requirements begin on the effective date of this permit. See Part I, Section B, Schedule of Compliance regarding the period for compliance with whole effluent toxicity (WET) limits. See Part II, Whole Effluent Toxicity Testing Requirements for additional WET monitoring and reporting conditions.

*8 WET requirements only apply when hydrostatic wastewater is being discharged from Outfall 002. The limit applies to Outfall 002. A flow weighted composite of outfalls 002-007 is allowed. If a flow weighted composite of outfalls 002-007 is collected, the limit applies to the composite sample.

*9 For Inlet air chillers, flow, pH, oil & grease, and TSS should be monitored twice a month.

4. Outfalls 003 through 007 – Hydrostatic test/flush water, Fire hydrant flush water, Fin fan wash water, Amine system flush water, Vehicle wash water

During the period beginning on the effective date of the permit and lasting until the expiration date, the permittee is authorized to discharge hydrostatic/flush water, Fire hydrant flush water, Fin fan wash water, Amine system flush water and vehicle wash water from the Outfalls 003 - 007 thence to La Quinta Channel to Corpus Christi Bay, or Corpus Christi Bay via on-site ditch, Water Body Segment Code No. 2481 of the Bays and Estuaries as described on the permit Outfall Table. Such discharges shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTICS		DISCHARGE LIMITATIONS Standard Units		MONITORING REQUIREMENTS	
POLLUTANT	STORET CODE	MINIMUM	MAXIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE
pH	00400	6.5	9.0	Daily (*1)	Grab

EFFLUENT CHARACTERISTICS		DISCHARGE LIMITATIONS lbs/day, unless noted		DISCHARGE LIMITATIONS mg/l, unless noted		MONITORING REQUIREMENTS	
POLLUTANT	STORET CODE	MON AVG	DAY MAX	MON AVG	DAY MAX	MEASUREMENT FREQUENCY	SAMPLE TYPE
Flow	50050	Report MGD (*2)	Report MGD (*2)	N/A	N/A	Daily (*1)	Estimate (*3)
Oil & Grease	00556	Report	Report	N/A	15	Daily (*1,)	Grab
Total Residual Chlorine	50060	N/A	N/A	N/A	0.019	Daily (*1, *6)	Grab
Total Suspended Solids	00530	Report	Report	30	45	Daily (*1)	Grab
Total BTEX *4 *5	30383	N/A	N/A	N/A	100 µg/L	Daily (*1)	Grab
Total Organic Carbon (TOC) *5	00680	N/A	N/A	N/A	50	Daily (*1)	Grab

EFFLUENT CHARACTERISTICS	DISCHARGE MONITORING	MONITORING REQUIREMENTS	
WHOLE EFFLUENT TOXICITY TESTING/LIMIT (48-Hour Acute Static Renewal/NOEC) *7, *8)	VALUE	MEASUREMENT FREQUENCY	SAMPLE TYPE
Mysidopsis bahia	80%	Once/ Quarter (*1)	24-Hr Composite
Menidia beryllina	Report	Once/Quarter (*1)	24-Hr Composite

Footnotes:

*1 When discharging.

*2 The discharge flow rate shall be controlled to prevent the erosion of soils, to minimize the disturbance and re-suspension of bottom sediments and to avoid adverse impact to any wetlands or other materials and the consequent addition of suspended solids to the discharge. Contact with unvegetated or disturbed ground surfaces shall be avoided.

*3 "Estimate" flow measurements shall not be subject to the accuracy provisions established at Part III.C.6. Flow may be estimated using best engineering judgment.

*4 BTEX shall be measured as the sum of benzene, toluene, ethylbenzene, and total xylene (including ortho-, meta-, and para-xylene) as quantified by EPA methods 601, 602, 624, or 1624.

*5 The permittee shall not discharge if the above limits cannot be met. TOC and BTEX limits shall apply only to discharges of hydrostatic test/flush water from existing pipelines and tanks that have been in-service.

*6 TRC requirements shall only apply when potable water is used and/or chlorine is added.

*7 Compliance with the limit, monitoring, and reporting requirements begin on the effective date of this permit. See Part I, Section B, Schedule of Compliance regarding the period for compliance with whole effluent toxicity (WET) limits. See Part II, Whole Effluent Toxicity Testing Requirements for additional WET monitoring and reporting conditions.

*8 WET requirements only apply when hydrostatic wastewater is being discharged from outfalls 003-007. A flow weighted composite of outfalls 002-007 is allowed. A WET limit is in place for Outfall 002. WET limits only apply to Outfalls 003 through 007 when hydrostatic wastewater from one or more of those outfalls is commingled with hydrostatic wastewater from Outfall 002.
If a flow weighted composite of outfalls 002-007 is collected, the limit applies to the composite sample.

5. Outfalls 008 – Sanitary Treatment Plant – 0.019 MGD Average

During the period beginning on the effective date of the permit and lasting through the expiration date, the permittee is authorized to discharge treated Sanitary wastewater from Outfall 008, thence to La Quinta Channel of Corpus Christi Bay, Water Body Segment Code No. 2481 of the of the Bays and Estuaries. Such discharges shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTICS		DISCHARGE LIMITATIONS Standard Units		MONITORING REQUIREMENTS	
POLLUTANT	STORET CODE	MINIMUM	MAXIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE
pH	00400	6.5	9.0	Twice/month (*1)	Grab

EFFLUENT CHARACTERISTICS		DISCHARGE LIMITATIONS lbs/day, unless noted		DISCHARGE LIMITATIONS mg/l, unless noted		MONITORING REQUIREMENTS	
POLLUTANT	STORET CODE	MON AVG	DAY MAX	MON AVG	DAY MAX	MEASUREMENT FREQUENCY	SAMPLE TYPE
Flow	50050	Report MGD	Report MGD	N/A	N/A	Continuous	Flow Meter
Total Residual Chlorine	50060	N/A	N/A	N/A	19 µg/l (*2)	Twice/month (*1)	Grab
BOD5	00310	9.01	13.51	30	45	Twice/month (*1)	Grab
TSS	00530	9.01	13.51	30	45	Twice/month (*1)	Grab
Enterococci, CFU/100 mL	61211	N/A	N/A	35	130	Twice/month (*1)	Grab
Total Zinc	01092	Report	Report	Report	Report	Twice/month (*1)	Grab

EFFLUENT CHARACTERISTICS	DISCHARGE MONITORING	MONITORING REQUIREMENTS	
WHOLE EFFLUENT TOXICITY (7day. Chronic Static Renewal) (*3)	VALUE	MEASUREMENT FREQUENCY	SAMPLE TYPE
Menidia beryllina	Report	Once/Quarter	24-Hr Composite
Mysidopsis bahia	Report	Once/Quarter	24-Hr Composite

Footnotes:

*1 For any monitoring period, samples shall be taken at least seven (7) days from the first sample of the previous monitoring period.

*2 If any individual analytical test result is less than the MQL listed, a value of zero (0) may be used for that pollutant result for the Discharge Monitoring Report (DMR) calculations and reporting requirements. 33 µg/l is defined as the Minimum Quantification level (MQL) for Total Residual Chlorine. See Section B of Part II.

*3 Monitoring and reporting requirements begin on the effective date of this permit. See PART I, and Part II, Whole Effluent Toxicity Testing Requirements for additional WET monitoring and reporting conditions.

6. Outfalls 009 and 010 – Fire water system flush water

During the period beginning on the effective date of the permit and lasting until the expiration date, the permittee is authorized to discharge Fire water system flush water from Outfalls 009 and 010 thence to La Quinta Channel to Corpus Christi Bay, Water Body Segment Code No. 2481 of the Bays and Estuaries as described on the permit Outfall Table. Such discharges shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTICS		DISCHARGE LIMITATIONS Standard Units		MONITORING REQUIREMENTS	
POLLUTANT	STORET CODE	MINIMUM	MAXIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE
pH	00400	6.5	9.0	Daily (*1)	Grab

EFFLUENT CHARACTERISTICS		DISCHARGE LIMITATIONS lbs/day, unless noted		mg/l, unless noted		MONITORING REQUIREMENTS	
POLLUTANT	STORET CODE	MON AVG	DAY MAX	MON AVG	DAY MAX	MEASUREMENT FREQUENCY	SAMPLE TYPE
Flow	50050	Report MGD	Report MGD	N/A	N/A	Daily (*1)	Estimate (*2)
Total Residual Chlorine	50060	N/A	N/A	N/A	0.019	Daily (*1, *3, *4)	Grab

Footnotes:

*1. When discharging

*2. "Estimate" flow measurements shall not be subject to the accuracy provisions established at Part III.C.6. Flow may be estimated using best engineering judgment.

*3. If any individual analytical test result is less than the MQL listed, a value of zero (0) may be used for that pollutant result for the Discharge Monitoring Report (DMR) calculations and reporting requirements. 33 ug/l is defined as the Minimum Quantification Level (MQL) for Total Residual Chlorine. See Section B of Part II.

*4. TRC requirements shall only apply when potable water is used and/or chlorine is added

SAMPLING LOCATION(S) AND OTHER REQUIREMENTS

Samples taken in compliance with the monitoring requirements specified above shall be taken at the discharge from the final treatment unit prior to the receiving stream from the following approximate location:

Internal Outfall 101: Latitude 27° 53' 7" N: Longitude 97° 16' 27" W
Outfall 001, Plant Sump: Latitude 27º 53' 37" N; Longitude 97º 16' 21" W
Internal Outfall 201: Latitude 27° 53' 23.58" N; Longitude 97° 16' 21.39" W
Internal Outfall 202: Latitude 27° 53' 25.48" N; Longitude 97° 16' 14.52" W
Internal Outfall 203: Latitude 27° 53' 27.62" N; Longitude 97° 16' 07.28" W
Outfall 002: Latitude 27° 53' 29" N; Longitude 97° 16' 34" W
Outfall 003: Latitude 27° 53' 10" N; Longitude 97° 16' 29" W
Outfall 004: Latitude 27° 52' 54" N; Longitude 97° 16' 30" W
Outfall 005: Latitude 27° 52' 56" N; Longitude 97° 16' 12" W
Outfall 006: Latitude 27° 52' 55" N; Longitude 97° 16' 1" W
Outfall 007: Latitude 27° 52' 54" N; Longitude 97° 15' 59" W
Outfall 008: Latitude 27° 53' 6" N; Longitude 97° 16' 28" W
Outfall 009: Latitude 27° 52' 50" N, Longitude 97° 16' 12" W, for flow sampling only
Outfall 010: Latitude 27° 52' 48" N, Longitude 97° 15' 57" W, for flow sampling only

Outfall 009 and 010: Latitude 27° 53' 29"; Longitude 97° 16' 00" W, for pH and Total residual Chlorine

Outfalls 201, 202, and 203 are substantially identical Outfalls. Sample from internal Outfall 201 should be representative of the anticipated discharge from Outfalls 202 and 203. Compliance monitoring would be required at the respective internal outfalls since flow from each Outfall is independent of the others. The permittee will be required to sample each of these Outfalls for permit re-application to confirm they are identical.

FLOATING SOLIDS, VISIBLE FOAM AND/OR OILS

There shall be no discharge of floating solids or visible foam in other than trace amounts.
There shall be no discharge of visible films of oil, globules of oil, grease or solids in or on the water, or coatings on stream banks.

SECTION B. SCHEDULE OF COMPLIANCE

The permittee shall comply with the following schedule of activities for the attainment of state water quality standards-based final effluent limitations for Mysidopsis bahia

a. Determine exceedance cause(s);
b. Develop control options, if needed;
c. Evaluate and select control mechanisms;
d. Implement corrective action; and
e. Attain final effluent limitations for Mysidopsis bahia no later than 36 months from the permit effective date.

The permittee shall submit quarterly progress reports, to both EPA and Texas Railroad Commission, in accordance with the following schedule. The requirement to submit quarterly progress reports for

Mysidopsis bahia shall expire 36 months from the permit effective date. No later than 14-days after the date compliance with Mysidopsis bahia final limits have been met, the permittee shall submit a written final report both to EPA and the State Agency, stating that compliance has been completed. If at any time

during the compliance periods the permittee determines that full compliance will not be met within the time allowed, a separate report shall be sent to both EPA and the State Agency stating the explanation for this delay and proposed remedial actions.

PROGRESS REPORT DATES

January 30
April 30
July 30
October 30

The permittee should note that each date applies to the prior three-month period.

Send progress and final reports to the following addresses:

EPA:
Compliance Assurance and
Enforcement Division
Water Enforcement Branch (6EN-W)
U.S. EPA, Region 6
1201 Elm Street, Suite 500
Dallas, TX 75270

Texas Railroad Commission:
Railroad Commission of Texas
Oil & Gas Division
ATTN: Program Manager
1701 North Congress Avenue
Environmental Services Section
P.O. Box 12967
Austin, TX 78711- 12967

SECTION C. MONITORING AND REPORTING (MINOR DISCHARGERS)

1. Discharge Monitoring Report (DMR) results shall be electronically reported to EPA per 40 CFR 127.16. To submit electronically, access the NetDMR website at https://netdmr.epa.gov. Until approved for Net DMR, the permittee shall request temporary or emergency waivers from electronic reporting. To obtain the waiver, please contact: U.S. EPA - Region 6, Water Enforcement Branch, Texas State Coordinator (6EN-WC), (214) 665-8582. If paper reporting is granted temporarily, the permittee shall submit the original DMR signed and certified as required by Part III.D.11 and all other reports required by Part III.D. to the EPA and copies to Texas Railroad Commission as required (See Part III.D.IV of the permit).

   Discharge Monitoring Report Form(s) shall be submitted quarterly. Each quarterly submittal shall include separate forms for each month of the reporting period.

2. Reporting periods shall end on the last day of the months March, June, September, and December.

3. The first Discharge Monitoring Report(s) shall represent facility operations from the effective date of the permit through the last day of the current reporting period.

4. Thereafter, the permittee is required to submit regular quarterly reports as described above and shall submit those reports postmarked no later than the 28th day of the month following each reporting period.

5. NO DISCHARGE REPORTING - If there is no discharge from any outfall during the sampling month, place an "X" in the NO DISCHARGE box located in the upper right corner of the Discharge Monitoring Report.

6. If any daily maximum or monthly average value exceeds the effluent limitations specified in Part I. A, the permittee shall report the excursion in accordance with the requirements of Part III. D.

7. Any daily maximum or monthly average value reported in the required Discharge Monitoring Report which is in excess of the effluent limitation specified in Part I. A shall constitute evidence of violation of such effluent limitation and of this permit.

8. The permittee shall effectively monitor the operation and efficiency of all treatment and control facilities and the quantity and quality of the treated discharge.

9. All reports shall be sent both to EPA and the Texas Railroad Commission at the addresses shown in Part III of the permit.

D. WATER TREATMENT CHEMICAL PROHIBITION

Products containing chromium and zinc will be prohibited from use as additives to the utility waters.

PART II - OTHER REQUIREMENTS

A. MINIMUM QUANTIFICATION LEVEL (MQL)

The Permittees shall use sufficiently sensitive EPA-approved analytical methods (under 40 CFR part 136 and 40 CFR chapter I, subchapters N and O) when quantifying the presence of pollutants in a discharge for analyses of pollutants or pollutant parameters under the permit. In case the minimum quantification levels (MQLs) are not sufficiently sensitive to the limits, the actual detected values, instead of zeros, need to be reported. If there is a sensitive method with MDL (method detection limit) below the limit, but the MQL is above the limit, they cannot report zero based on MQL, but must report actual value.

If any individual analytical test result is less than the MQL listed in Appendix A, or the more sensitive MDL, a value of zero (0) may be used for that individual result for reporting purpose.

The Permittees may develop an effluent specific method detection limit (MDL) in accordance with Appendix B to 40 CFR 136. For any pollutant for which the Permittees determine an effluent specific MDL, the Permittees shall send to the EPA Region 6 NPDES Permits Branch (6WQ-P) a report containing QA/QC documentation, analytical results, and calculations necessary to demonstrate that the effluent specific MDL was correctly calculated. An effluent specific minimum quantification level (MQL) shall be determined in accordance with the following calculation:

MQL = 3.3 x MDL

Upon written approval by the EPA Region 6 NPDES Permits Branch (6WQ-P), the effluent specific MQL may be utilized by the permittee for all future Discharge Monitoring Report (DMR) reporting requirements.

A method is "sufficiently sensitive" when (1) the method minimum level (ML) of quantification is at or below the level of the applicable effluent limit for the measured pollutant or pollutant parameter; or (2) if there is no EPA-approved analytical method with a published ML at or below the effluent limit, then the method that has the lowest published ML (is the most sensitive) of the analytical methods approved under 40 CFR Part 136 or required under 40 CFR Chapter I, Subchapters N or 0, for the measured pollutant or pollutant parameter; or (3) the method is specified in this permit or has been otherwise approved in writing by the permitting authority (EPA Region 6) for the measured pollutant or pollutant parameter. The Permittee has the option of developing and submitting a report to justify the use of matrix or sample-specific MLs rather than the published levels. Upon written approval by EPA Region 6 the matrix or sample specific MLs may be utilized by the Permittee for all future Discharge Monitoring Report (DMR) reporting requirements.

Current EPA Region 6 minimum quantification levels (MQLs) for reporting and compliance are provided in Appendix A of Part II of this permit.

B. 24-HOUR ORAL REPORTING: DAILY MAXIMUM LIMITATION VIOLATIONS

Under the provisions of Part III.D.7.b.(3) of this permit, violations of daily maximum limitations for the following pollutants shall be reported orally to EPA Region 6, Compliance and Assurance Division, Water Enforcement Branch (6EN-W), Dallas, Texas, at (214) 665-6595, and concurrently to Railroad Commission of Texas, at (512) 463-6804, within 24 hours from the time the permittee becomes aware of the violation followed by a written report in five days.

Total Residual Chlorine

C. 40 CFR PART 136 ANALYTICAL REQUIREMENTS

Unless otherwise specified in this permit, monitoring shall be conducted according to the analytical, apparatus and materials, sample collection, preservation, handling, etc., procedures listed at 40 CFR Part 136 in effect on the effective date of this permit. Appendices A, B, and C to 40 CFR Part 136 are specifically referenced as part of this requirement. Amendments to 40 CFR Part 136 promulgated after the effective date of this permit shall supersede these requirements as applicable.

D. REOPENER

The permit may be reopened and modified during the life of the permit if relevant portions of the Texas Commission on Environmental Quality (TCEQ) Water Quality Standards for Interstate and Intrastate Streams are revised or remanded. In addition, the permit may be reopened and modified during the life of the permit if relevant procedures implementing the Water Quality Standards are either revised or promulgated by the TCEQ. Should the State adopt a State water quality standard, this permit may be reopened to establish effluent limitations for the parameter(s) to be consistent with that approved State standard in accordance with 40CFR122.44. Modification of the permit is subject to the provisions of 40CFR124.5.

If a new or revised TMDL is determined for the receiving stream, the permit may be reopened, and new limitations based on the TMDL may be incorporated into the permit. Additionally, in accordance with 40 CFR Part 122.62 (a) (2), the permit may be reopened and modified if new information is received that was not available at the time of permit issuance that would have justified the application of different permit conditions at the time of permit issuance. Permit modifications shall reflect the results of any of these actions and shall follow regulations listed at 40 CFR Part 124.5.

E. If any solid waste is generated and not shipped off-site for disposal, the permittee shall use only those solid waste disposals or reuse practices complying with federal regulations established in 40 CFR Part 257 "Criteria for Classification of Solid Waste Disposal Facilities and Practices."
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F. STORM WATER POLLUTION PREVENTION

Stormwater has been identified by the applicant/permittee as a component of the discharge through Outfall 001. This section applies to all stormwater discharges from the facility, either through permitted outfalls or through outfalls which are not listed in the permit. The language below has been included in this permit to control stormwater through discharges in individual permits:

1. The permittee shall prepare, implement, and maintain a Storm Water Pollution Prevention Plan (SWP3) within six (6) months of the effective date of the final permit. The terms and conditions of the SWP3 shall be an enforceable Part of the permit.

2. A visual inspection of the facility shall be conducted, and a report made annually as described in Paragraphs E.2.d and E.2.e below. The annual report shall be retained on site and available upon request.

The following conditions shall be included in the SWP3 for this facility.

a. The permittee shall identify potential sources of pollution which may reasonably be expected to affect the quality of storm water discharges from the facility; describe and ensure implementation of practices which will be used to reduce pollutants in storm water discharges from the facility; and assure compliance with the terms and conditions of this permit.

b. The permittee must document where potential spills and leaks could occur that could contribute pollutants to stormwater discharges, and the corresponding outfall(s). The permittee must document all significant spills and leaks of oil or toxic or hazardous pollutants that actually occurred at exposed areas, or that drained to a stormwater conveyance, in the 3 years prior to the date you prepare or amend your SWPPP.

Note: Significant spills and leaks include, but are not limited to, releases of oil or hazardous substances in excess of quantities that are reportable under CWA Section 311 (see 40 CFR 110.6 and 40 CFR 117.21) or Section 102 of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 USC §9602. This permit does not relieve you of the reporting requirements of 40 CFR 110, 40 CFR 117, and 40 CFR 302 relating to spills or other releases of oils or hazardous substances.

c. Where experience indicates a reasonable potential for equipment failure (e.g. a tank overflow or leakage), natural conditions e.g. precipitation, or other circumstances which result in significant amounts of pollutants reaching surface waters, the SWP3 should include a prediction of the direction, rate of flow and total quantity of pollutants which could be discharged from the facility as a result of each condition or circumstance.

d. The permittee shall maintain for a period of three years a record summarizing the results of the inspection and a certification that the facility is in compliance with the SWP3 and the permit and identifying any incidents of noncompliance. The summary report should contain, at a minimum, the date and time of inspection, name of inspectors(s), conditions found, and changes to be made to the SWP3.

e. The summary report and the following certification shall be signed and attached to the SWP3 and provided to the Environmental Protection Agency and the Railroad Commission of Texas upon request.

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

Signatory requirements for the certification may be found in Part III, Section D.11 of this permit.

f. The permittee shall make available to the Agency, the Railroad Commission of Texas, and/or the USFWS, upon request, a copy of the SWP3 and any supporting documentation.

3. The following shall be included in the SWP3, if applicable.

The permittee shall utilize all reasonable methods to minimize any adverse impact on the drainage system including but not limited to:

i. maintaining adequate road and driveway surfaces;
ii. removing debris and accumulated solids from the drainage system; and
iii. cleaning up prior to the next storm event, any spill by sweeping, absorbent pads, or other appropriate methods.

b. All spilled product and other spilled wastes shall be immediately cleaned up and disposed of according to all applicable regulations, Spill Prevention and Control (SPC) plans or Spill Prevention Control and Countermeasures (SPCC) plans. Use of detergents, emulsifiers, or dispersants to clean up spilled product is prohibited except where necessary to comply with State or Federal safety regulations (i.e., requirement for non-slippery work surface). In all such cases, initial cleanup shall be done by physical removal and chemical usage shall be minimized.

c. All equipment, parts, dumpsters, trash bins, petroleum products, chemical solvents, detergents, or other materials exposed to stormwater shall be maintained in a manner which prevents contamination of stormwater by pollutants.

d. All waste fuel, lubricants, coolants, solvents, or other fluids used in repair or maintenance of vehicles or equipment shall be recycled or contained for proper disposal. Spills of these materials are to be cleaned up by dry means whenever possible.

e. Stormwater Pollution Prevention Plan must be consistent with the requirements of the current Oil Pollution Prevention regulations.

f. Prior to discharge of uncontaminated stormwater from a secondary containment area, the permittee will conduct a visual inspection of the containment area for a visible sheen, an odor associated within the tanked products, and/or a stain pattern within the contained area that is indicative of a spill or leak into that area. No dewatering of the area is allowed under the condition of this permit, if evidence exists of a spill or leak, unless the discharge will not exceed 50 mg/l TOC, 15 mg/l Oil and Grease, or having a pH less than 6.0 or greater than 9.0 standard units.

g. The permittee shall assure compliance with all applicable regulations promulgated under 40 CFR Part 257. Management practices required under regulations found in this Part shall be referenced in the SWP3.

h. The permittee shall amend the SWP3 whenever there is a change in the facility or change in the operation of the facility which materially increases the potential for the ancillary activities to result in a discharge of significant amounts of pollutants.

i. If the SWP3 proves to be ineffective in achieving the general objectives preventing the release of significant amounts of pollutants to water of the state, then the specific objectives and requirements of the SWP3 shall be subject to modification to incorporate revised SWP3 requirements.

4. The facility shall maintain SWP3 describing how the above limits will be met.

G. WHOLE EFFLUENT TOXICITY TESTING (7-DAY CHRONIC NOEC MARINE)

It is unlawful and a violation of this permit for a permittee or his designated agent, to manipulate test samples in any manner, to delay sample shipment, or to terminate or to cause to terminate a toxicity test. Once initiated, all toxicity tests must be completed unless specific authority has been granted by EPA Region 6 or the State NPDES permitting authority.

1. SCOPE AND METHODOLOGY

a. The permittee shall test the effluent for toxicity in accordance with the provisions in this section.

APPLICABLE TO FINAL OUTFALL(S) 001, 008	
REPORTED AS FINAL OUTFALL	001, 008
CRITICAL DILUTION (%)	8%
EFFLUENT DILTION SERIES (%)	3%, 5%, 6%, 8%, and 11%.
TEST SPECIES AND METHODS	Mysidopsis bahia/ Method 1007.0 (EPA/821/R-02-014 or latest version)
	Menidia beryllina/ Method 1006.0 (EPA-821-R-02-14 or latest version)
SAMPLE TYPE	Defined in PART I

b. The NOEC (No Observed Lethal Effect Concentration) is herein defined as the greatest effluent dilution at and below which lethality that is statistically different from the control (0% effluent) at the 95% confidence level does not occur. Chronic lethal test failure is defined as a demonstration of a statistically significant lethal effect at test completion to a test species at or below the critical dilution. Chronic sub-lethal test failure is defined as a demonstration of a statistically significant sub-lethal effect (i.e., growth or reproduction) at test completion to a test species at or below the critical dilution.

c. This permit may be reopened to require WET limits, chemical specific effluent limits, additional testing, and/or other appropriate actions to address toxicity.

2. REQUIRED TEST ACCEPTABILITY CRITERIA AND TEST CONDITIONS

The permittee shall repeat a test, including the control and all effluent dilutions, if the procedures and quality assurance requirements defined in the test methods or in this permit are not satisfied, including the following additional criteria:

Condition/Criteria	Mysidopsis bahia	Menidia beryllina
Test Duration	7 days	7 days
# of replicates per concentration	8	4
# of organisms per replicate	5	10
# or organisms per concentration	40	40
# of test concentrations per effluent	5 and a control	5 and a control
Holding time *	36 hours for first use	36 hours for first use
Sampling Requirement *	Minimum of 3 samples	Minimum of 3 samples

Test Acceptability Criteria	≥80% survival of all control organisms.	≥80% survival of all control organisms.
	Average dry weight per surviving organism in control ≥0.2mg.	Average dry weight per surviving unpreserved organism in the control must be ≥0.5mg when test starts with 7d old larvae, or, ≥0.43mg or greater after no more than 7days if preserved.
Coefficient of Variation**	40% or less, unless significant effects are exhibited.	40% or less, unless significant effects are exhibited.
Percent Minimum Significant Difference (PMSD range) for Sublethal Endpoint **	11 - 37	11 - 28

* If the flow from the outfall(s) being tested ceases during the collection of effluent samples, the requirements for the minimum number of effluent samples and the minimum number of effluent portions are waived during that sampling period. However, the permittee must collect an effluent composite sample volume during the period of discharge that is sufficient to complete the required toxicity tests with daily renewal of effluent and must meet the holding time between collection and first use of the sample. When possible, the effluent samples used for the toxicity tests shall be collected on separate days. The effluent composite sample collection duration and the static renewal protocol associated with the abbreviated sample collection must be documented in the full report required in Item 3 of this section.

**Test failure may not be construed or reported as invalid due to a coefficient of variation value of greater than 40%, or a PMSD value greater than the higher value on the range provided.

a. Statistical Interpretation

The statistical analyses used to determine if there is a significant difference between the control and the critical dilution shall be in accordance with the methods for determining the No Observed Effect Concentration (NOEC) as described in the appropriate method manual listed in Part II or the most recent update thereof.

b. Dilution Water

1) Dilution water used in the toxicity tests will be receiving water collected as close to the point of discharge as possible but unaffected by the discharge. The permittee shall substitute synthetic dilution water of similar pH, hardness, and alkalinity to the closest downstream perennial water for;
    i. toxicity tests conducted on effluent discharges to receiving water classified as intermittent streams; and
    ii. toxicity tests conducted on effluent discharges where no receiving water is available due to zero flow conditions.

2) If the receiving water is unsatisfactory as a result of instream toxicity (fails to fulfill the test acceptance criteria), 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:
    i. a synthetic dilution water control which fulfills the test acceptance requirements was run concurrently with the receiving water control;

ii. the test indicating receiving water toxicity has been carried out to completion,
iii. the permittee includes all test results indicating receiving water toxicity with the full report and information required; and
iv. the synthetic dilution water shall have a pH, hardness, and alkalinity similar to that of the receiving water or closest downstream perennial water not adversely affected by the discharge, provided the magnitude of these parameters will not cause toxicity in the synthetic dilution water.

c. Samples and Composites

1) The permittee shall collect a minimum of three samples (flow-weighted composite if possible) from the outfall(s).

2) The permittee shall collect a second and third sample (composite samples if possible) for use during the 24-hour renewal of each dilution concentration for each test. The permittee must collect the composite samples so that the maximum holding time for any effluent sample shall not exceed 36 hours for first use of the sample. The permittee must have initiated the toxicity test within 36 hours after the collection of the last portion of the first composite sample. Samples shall be chilled to 6 degrees Centigrade during collection, shipping, and/or storage. A holding time up to 72 hrs. is allowed upon notification to EPA of the need for additional holding time.

3) The permittee must collect the composite samples such that the effluent samples are representative of the discharge duration, and of any periodic episode of chlorination, biocide usage or other potentially toxic substance discharged on an intermittent basis.

3. REPORTING

a. The permittee shall prepare a full report of the results of all tests conducted pursuant to this part in accordance with the Report Preparation Section of the most current publication of the method manual, for every valid or invalid toxicity test initiated, whether carried to completion or not. The permittee shall retain each full report and submit them upon the specific request of the Agency. For any test which fails, is considered invalid, or which is terminated early for any reason, the full report must be submitted for agency review.

b. A valid test for each species must be reported during each reporting period specified in PART I of this permit unless the permittee is performing a TRE which may increase the frequency of testing and reporting. One set of biomonitoring data for each species is to be recorded on the DMR for each reporting period. Additional results are reported under the retest codes below.

c. The permittee shall submit the results of each valid toxicity test on the subsequent monthly DMR for that reporting period as follows below. Submit retest information clearly marked as such with the following month's DMR. Only results of valid tests are to be reported on the DMR.

Reporting Requirement	Parameter STORET CODE	
	Mysidopsis bahia	Menidia beryllina
Enter a “1” if the No Observed Effect Concentration (NOEC) for survival is less than the critical dilution, otherwise enter a "0".	TLP3E	TLP6B
Report the NOEC value for survival	TOP3E	TOP6B
Report the LOEC value for survival	TXP3E	TXP6B

Enter a "1" if the NOEC for growth or reproduction is less than the critical dilution, otherwise enter a "0".	TWP3E	TWP6B
Report the NOEC value for growth or reproduction	TPP3E	TPP6B
Report the LOEC value for growth	TYP3E	TYP6B
Report the highest (critical dilution or control) Coefficient of Variation	TQP3E	TQP6B
(If required) Retest 1 – Enter a "1" if the NOEC for survival, growth or reproduction is less than the critical dilution, otherwise enter "0".	22418	22415
(If required) Retest 2- Enter a "1" if the NOEC for survival, growth or reproduction is less than the critical dilution, otherwise enter "0".	22419	22416
(If required) Retest 3- Enter a "1" if the NOEC for survival, growth or reproduction is less than the critical dilution, otherwise enter "0".	51444	51443

4. MONITORING FREQUENCY REDUCTION

a. The permittee may apply for a testing frequency reduction upon the successful completion of the first four consecutive quarters of testing for a test species, with no lethal or sub-lethal effects demonstrated at or below the critical dilution. If granted, the monitoring frequency for that test species may be reduced to not less than once per year for the less sensitive species (usually the vertebrate species) and not less than twice per year for the more sensitive test species (usually the invertebrate species).

b. Certification - The permittee must certify in writing that no test failures have occurred and that all tests meet all test acceptability criteria above. In addition, the permittee must provide a list with each test performed including test initiation date, species, and NOECs. Upon review and acceptance of this information, the agency will issue a letter of confirmation of the monitoring frequency reduction. A copy of the letter will be forwarded to the agency's compliance section to update the permit reporting requirements.

c. Failures - If any test demonstrates lethal or sub-lethal effects at or below the critical dilution at any time during the life of this permit, three monthly retests are required. If a frequency reduction had been granted, the monitoring frequency for the affected test species reverts to once per quarter until the permit is re-issued.

d. This monitoring frequency reduction applies only until the expiration date of this permit, at which time the monitoring frequency for both test species reverts to once per quarter until the permit is re-issued.

5. PERSISTENT TOXICITY

The requirements of this subsection apply only when a toxicity test demonstrates significant lethal and/or sub-lethal effects at or below the critical dilution. Significant toxic effects are herein defined as a statistically significant difference at the 95% confidence level between the survival, growth or reproduction of the appropriate test organism in a specified effluent dilution and the control (0% effluent). If the initial WET test conducted fails, the permittee will conduct three retests. The purpose of retests is to determine the duration of a toxic event. A test that meets all test acceptability criteria and demonstrates

significant toxic effects does not need additional confirmation. Such testing cannot confirm or disprove a previous test result. If any valid test demonstrates significant lethal and/or sub-lethal effects to a test species at or below the critical dilution, the frequency of testing for this species is automatically increased to once per quarter with no option for frequency reduction.

a. Retest

The permittee shall conduct a total of three (3) additional tests for any species that demonstrates significant effects at or below the critical dilution. The three additional tests shall be conducted monthly during the next three consecutive months. If testing on a quarterly basis, the permittee may substitute one of the additional tests in lieu of one routine toxicity test. A full report shall be prepared for each test required by this section in accordance with the reporting requirements previously outlined and available upon request from the Agency.

b. Requirement to Initiate a Toxicity Reduction Evaluation

If persistent lethality is demonstrated by failure of one or more retests, the permittee shall initiate Toxicity Reduction Evaluation (TRE) requirements as specified in Part 6 of this section. If persistent sub-lethality is demonstrated by failure of two or more retests, the permittee shall initiate Toxicity Reduction Evaluation (TRE) requirements. The permittee shall notify EPA in writing within 5 days of notification of the failure of any retest, and the TRE initiation date will be the test completion date of the first failed retest for lethal TREs or second failed retest for sub-lethal TREs. A TRE may also be required due to a demonstration of intermittent effects at or below the critical dilution, or for failure to perform the required retests.

6. TOXICITY REDUCTION EVALUATION (TRE)

EPA Region 6 is currently addressing TREs as follows: A TRE is triggered following three sub-lethal test failures (a failure followed by two retest failures) or two test failures with lethal effects (a failure followed by one retest failure).

a. Within ninety (90) days of confirming lethality and/or sub-lethality in the retests, the permittee shall submit a Toxicity Reduction Evaluation (TRE) Action Plan and Schedule for conducting a TRE to the EPA WET Coordinator at 6WQ-PO. The TRE Action Plan shall specify the approach and methodology to be used in performing the TRE. A TRE is an investigation intended to determine those actions necessary to achieve compliance with water quality-based effluent limits by reducing an effluent's toxicity to an acceptable level. A TRE is defined as a step wise process which combines toxicity testing and analyses of the physical and chemical characteristics of a toxic effluent to identify the constituents causing effluent toxicity and/or treatment methods which will reduce the effluent toxicity. The TRE Action Plan shall lead to the successful elimination of effluent toxicity at the critical dilution and include the following:
    1) Specific Activities. The plan shall detail the specific approach the permittee intends to utilize in conducting the TRE. The approach may include toxicity characterizations, a Toxicity Identification Evaluation (TIE) and confirmation activities, source evaluation, treatability studies, or alternative approaches. When the permittee conducts Toxicity Identification Evaluations to characterize the nature of the constituents causing toxicity, the permittee shall perform multiple characterizations and follow the procedures specified in the documents "Methods for Aquatic Toxicity Identification Evaluations: Phase I Toxicity Characterization Procedures" (EPA 600/6-91/003) or alternate procedures. When the permittee conducts Toxicity Identification Evaluations and Confirmations, the permittee shall perform multiple identifications and follow the methods specified in the documents "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), as appropriate.

2) Sampling Plan (e.g., locations, methods, holding times, chain of custody, preservation, etc.). The effluent sample volume collected for all tests shall be adequate to perform the toxicity test, toxicity characterization, identification and confirmation procedures, and conduct chemical specific analyses when a probable toxicant has been identified; Where the permittee has identified or suspects specific pollutant(s) and/or source(s) of effluent toxicity, the permittee shall conduct, concurrent with toxicity testing, chemical specific analyses for the identified and/or suspected pollutant(s) and/or source(s) of effluent toxicity. Where toxicity was demonstrated within 24 hours of test initiation, each composite sample shall be analyzed independently. Otherwise the permittee may substitute a composite sample, comprised of equal portions of the individual composite samples, for the chemical specific analysis;

3) Quality Assurance Plan (e.g., QA/QC implementation, corrective actions, etc.); and

4) Project Organization (e.g., project staff, project manager, consulting services, etc.).

b. The permittee shall initiate the TRE Action Plan within thirty (30) days of plan and schedule submittal.

c. The permittee shall submit a quarterly TRE Activities Report to the EPA WET Coordinator (6WD-PN) in the months of January, April, July and October, containing information on toxicity reduction evaluation activities including:

1) Any data and/or substantiating documentation which identifies the pollutant(s) and/or source(s) of effluent toxicity;
2) Any studies/evaluations and results on the treatability of the facility's effluent toxicity; and
3) Any data which identifies effluent toxicity control mechanisms that will reduce effluent toxicity to the level necessary to meet no significant toxicity at the critical dilution. A copy of the TRE Activities Report shall also be submitted to the state agency.
4) Any results and interpretation of any chemical specific analysis, and for any characterization, identification, and confirmation tests performed during the quarter.
5) Any changes to the initial TRE plan and schedule that are believed necessary.

d. Finalizing a TRE

The permittee shall submit (to EPA 6WQ-PO) a final report on TRE activities no later than twenty-eight (28) months from confirming toxicity in the retests, which provides information pertaining to the specific control mechanism selected that will, when implemented, result in reduction of effluent toxicity to no significant toxicity at the critical dilution. The report will also provide a specific corrective action schedule for implementing the selected control mechanism. A copy of the final report on TRE Activities shall also be submitted to the state agency.

A TRE may be stopped if there is no toxicity at the critical dilution for a period of 12 consecutive months (with at least monthly testing) following confirmation of toxicity in the retests. The permittee would submit a final report to EPA at that time.

e. Quarterly testing during the TRE is a minimum monitoring requirement. EPA recommends that permittees required to perform a TRE not rely on quarterly testing alone to ensure success in the

TRE, and that additional screening tests be performed to capture toxic samples for identification of toxicants. Failure to identify the specific chemical compound causing toxicity test failure will normally result in a permit limit for whole effluent toxicity limits per federal regulations at 40 CFR 122.44(d)(1)(v).

H. WHOLE EFFLUENT TOXICITY TESTING/LIMIT (48HR ACUTE NOEC MARINE)

It is unlawful and a violation of this permit for a permittee or his designated agent, to manipulate test samples in any manner, to delay sample shipment, or to terminate or to cause to terminate a toxicity test. Once initiated, all toxicity tests must be completed unless specific authority has been granted by EPA Region 6 or the State NPDES permitting authority.

1. SCOPE AND METHODOLOGY

a. The permittee shall test the effluent for toxicity in accordance with the provisions in this section.

APPLICABLE TO FINAL OUTFALL(S) 002-007	
REPORTED AS FINAL OUTFALL	002-007
CRITICAL DILUTION (%)	80%
EFFLUENT DILTION SERIES (%)	34%, 45%, 60%, 80%, and 100%
TEST SPECIES AND METHODS	Mysidopsis bahia/ Method 2007.0 (EPA/821/R-02-012 or latest version)
	Menidia beryllina/ Method 2006.0 (EPA-821-R-02-012 or latest version)
SAMPLE TYPE	Defined in PART I

b. The NOEC (No Observed Lethal Effect Concentration) is herein defined as the greatest effluent dilution at and below which lethality that is statistically different from the control (0% effluent) at the 95% confidence level does not occur. Acute test failure is defined as a demonstration of a statistically significant lethal effect at test completion to a test species at or below the critical dilution

c. This permit may be reopened to require WET limits, chemical specific effluent limits, additional testing, and/or other appropriate actions to address toxicity.

d. WET Limit (*Mysidopsis bahia*): The conditions of this item are effective beginning with the effective date of the WET limit. When the effluent fails the test at or below the critical dilution, the permittee shall be considered in violation of this permit limit and the frequency for the affected species will increase to monthly until compliance with the No Observed Effect Concentration (NOEC) effluent limitation is demonstrated for a period of three consecutive months, at which time the permittee may return to the testing frequency stated in PART I of this permit. The purpose of the increased frequency for WET testing after a violation is to determine the duration of a toxic event. A test that meets all test acceptability criteria and demonstrates significant toxic effects does not need additional confirmation. Such testing cannot confirm or disprove a previous test result.

2. REQUIRED TEST CONDITIONS AND TEST ACCEPTABILITY CRITERIA

The permittee shall repeat a test, including the control and all effluent dilutions, if the procedures and quality assurance requirements defined in the test methods or in this permit are not satisfied, including the following additional criteria:

Condition/Criteria	Mysidopsis bahia	Menidia beryllina
# of replicates per concentration	2	2
# of organisms per replicate	10	10
# or organisms per concentration	20	20
# of test concentrations per effluent	5 and a control	5 and a control
Holding time *	36 hours for first use	36 hours for first use
Test Acceptability Criteria	≥90% survival of all control organisms.	≥90% survival of all control organisms.
Coefficient of Variation **	40% or less, unless significant effects are exhibited.	40% or less unless significant effects are exhibited.

* If the flow from the outfall(s) being tested ceases during the collection of effluent samples, the requirements for the minimum number of effluent samples and the minimum number of effluent portions are waived during that sampling period. However, the permittee must collect an effluent composite sample volume during the period of discharge that is sufficient to complete the required toxicity tests with daily renewal of effluent and must meet the holding time between collection and first use of the sample. When possible, the effluent samples used for the toxicity tests shall be collected on separate days. The effluent composite sample collection duration and the static renewal protocol associated with the abbreviated sample collection must be documented in the full report required in Item 3 of this section.

**Test failure may not be construed or reported as invalid due to a coefficient of variation value of greater than 40%, or a PMSD value greater than the higher value on the range provided.

a. Statistical Interpretation

The statistical analyses used to determine if there is a significant difference between the control and the critical dilution shall be in accordance with the methods for determining the No Observed Effect Concentration (NOEC) as described in the appropriate method manual listed in Part II or the most recent update thereof.

b. Dilution Water

1) Dilution water used in the toxicity tests will be receiving water collected as close to the point of discharge as possible but unaffected by the discharge. The permittee shall substitute synthetic dilution water of similar pH, hardness, and alkalinity to the closest downstream perennial water for;
    i. toxicity tests conducted on effluent discharges to receiving water classified as intermittent streams; and
    ii. toxicity tests conducted on effluent discharges where no receiving water is available due to zero flow conditions.

2) If the receiving water is unsatisfactory as a result of instream toxicity (fails to fulfill the test acceptance criteria), 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:
   i. a synthetic dilution water control which fulfills the test acceptance requirements was run concurrently with the receiving water control;
   ii. the test indicating receiving water toxicity has been carried out to completion,
   iii. the permittee includes all test results indicating receiving water toxicity with the full report and information required; and
   iv. the synthetic dilution water shall have a pH, hardness, and alkalinity similar to that of the receiving water or closest downstream perennial water not adversely affected by the discharge, provided the magnitude of these parameters will not cause toxicity in the synthetic dilution water.

c. Samples and Composites
   1) The permittee shall collect two samples (flow-weighted composite if possible) from the outfall(s).

   2) The permittee shall collect a second sample (composite samples if possible) for use during the 24-hour renewal of each dilution concentration for each test. The permittee must collect the composite samples so that the maximum holding time for any effluent sample shall not exceed 36 hours for first use of the sample. The permittee must have initiated the toxicity test within 36 hours after the collection of the last portion of the first composite sample. Samples shall be chilled to 6 degrees Centigrade during collection, shipping, and/or storage. A holding time up to 72 hrs is allowed upon notification to EPA of the need for additional holding time.

   3) The permittee must collect the composite samples such that the effluent samples are representative of the discharge duration, and of any periodic episode of chlorination, biocide usage or other potentially toxic substance discharged on an intermittent basis.

   4) MULTIPLE OUTFALLS: The provisions of this section are applicable to multiple outfalls (002-007). The permittee may combine the composite effluent samples in proportion to the average flow from the outfalls listed in item 1.a. above for the day the sample was collected. The permittee shall perform the toxicity test on the flow-weighted composite of the outfall samples.

3. REPORTING

a. The permittee shall prepare a full report of the results of all tests conducted pursuant to this part in accordance with the Report Preparation Section of the most current publication of the method manual, for every valid or invalid toxicity test initiated, whether carried to completion or not. The permittee shall retain each full report and submit them upon the specific request of the Agency. For any test which fails, is considered invalid, or which is terminated early for any reason, the full report must be submitted for agency review.

b. A valid test for each species must be reported during each reporting period specified in PART I of this permit unless the permittee is performing a TRE which may increase the frequency of testing and reporting. One set of biomonitoring data for each species is to be recorded on the DMR for each reporting period. Additional results for *M. beryllina* are reported under the retest codes

below. Any *M.bahia* WET test conducted outside of the stipulated frequency in Part I (results of a testing frequency increase) shall be reported under Unscheduled Events for the COMPLIANCE CODE, in the DMR. Only results of valid tests are to be reported.

c. The permittee shall submit the results of each valid toxicity test on the subsequent monthly DMR for that reporting period as follows below.

Reporting Requirement	Parameter STORET CODE	
	Mysidopsis bahia	Menidia beryllina
Enter a "1" if the No Observed Effect Concentration (NOEC) for survival is less than the critical dilution, otherwise enter a "0".	TEM3E	TEM6B
Report the NOEC value for survival	TOM3E	TOM6B
Report the highest (critical dilution or control) Coefficient of Variation	TQM3E	TQM6B
(If required) Retest 1 – Enter a "1" if the NOEC for survival is less than the critical dilution, otherwise enter "0".	N/A	22415
(If required) Retest 2- Enter a "1" if the NOEC for survival is less than the critical dilution, otherwise enter "0".	N/A	22416
(If required) Retest 3- Enter a "1" if the NOEC for survival is less than the critical dilution, otherwise enter "0".	N/A	51443
Report the NOEC value for survival. COMPLIANCE CODE	51712	N/A

4. MONITORING FREQUENCY REDUCTION (For *M.beryllina* only)

a. The permittee may apply for a testing frequency reduction upon the successful completion of the first four consecutive quarters of testing for a test species, with no lethal or sub-lethal effects demonstrated at or below the critical dilution. If granted, the monitoring frequency for that test species may be reduced to not less than once per year for the less sensitive species (usually the vertebrate species).

b. Certification - The permittee must certify in writing that no test failures have occurred and that all tests meet all test acceptability criteria above. In addition, the permittee must provide a list with each test performed including test initiation date, species, and NOECs. Upon review and acceptance of this information, the agency will issue a letter of confirmation of the monitoring frequency reduction. A copy of the letter will be forwarded to the agency's compliance section to update the permit reporting requirements.

c. Failures - If any test demonstrates lethal or sub-lethal effects at or below the critical dilution at any time during the life of this permit, three monthly retests are required. If a frequency reduction had been granted, the monitoring frequency for the affected test species reverts to once per quarter until the permit is re-issued.

d. This monitoring frequency reduction applies only until the expiration date of this permit, at which time the monitoring frequency for both test species reverts to once per quarter until the permit is re-issued.

5. PERSISTENT TOXICITY

The requirements of this subsection apply only to *M.beryllina* when a toxicity test demonstrates significant lethal effects at or below the critical dilution. Significant toxic effects are herein defined as a statistically significant difference at the 95% confidence level between the survival of the appropriate test organism in a specified effluent dilution and the control (0% effluent). If the initial WET test conducted fails, the permittee will conduct three retests. The purpose of retests is to determine the duration of a toxic event. A test that meets all test acceptability criteria and demonstrates significant toxic effects does not need additional confirmation. Such testing cannot confirm or disprove a previous test result. If any valid test demonstrates significant lethal effects to a test species at or below the critical dilution, the frequency of testing for this species is automatically increased to once per quarter with no option for frequency reduction.

a. Retest

The permittee shall conduct a total of three (3) additional tests for any species that demonstrates significant lethal effects at or below the critical dilution. The three additional tests shall be conducted monthly during the next three consecutive months. If testing on a quarterly basis, the permittee may substitute one of the additional tests in lieu of one routine toxicity test. A full report shall be prepared for each test required by this section in accordance with the reporting requirements previously outlined and available upon request from the Agency.

b. Requirement to Initiate a Toxicity Reduction Evaluation

If persistent lethality is demonstrated by failure of one or more retests, the permittee shall initiate Toxicity Reduction Evaluation (TRE) requirements as specified in Part 6 of this section. The permittee shall notify EPA in writing within 5 days of notification of the failure of any retest, and the TRE initiation date will be the test completion date of the first failed retest. A TRE may also be required due to a demonstration of intermittent effects at or below the critical dilution, or for failure to perform the required retests.

6. TOXICITY REDUCTION EVALUATION (TRE)

A TRE is triggered following two test failures (a failure followed by one retest failure).

a. Within ninety (90) days of confirming lethality in the retests, the permittee shall submit a Toxicity Reduction Evaluation (TRE) Action Plan and Schedule for conducting a TRE to the EPA WET Coordinator at 6WQ-PO. The TRE Action Plan shall specify the approach and methodology to be used in performing the TRE. A TRE is an investigation intended to determine those actions necessary to achieve compliance with water quality-based effluent limits by reducing an effluent's toxicity to an acceptable level. A TRE is defined as a step wise process which combines toxicity testing and analyses of the physical and chemical characteristics of a toxic effluent to identify the constituents causing effluent toxicity and/or treatment methods which will reduce the effluent toxicity. The TRE Action Plan shall lead to the successful elimination of effluent toxicity at the critical dilution and include the following:

1) Specific Activities. The plan shall detail the specific approach the permittee intends to utilize in conducting the TRE. The approach may include toxicity characterizations, a Toxicity Identification Evaluation (TIE) and confirmation activities, source evaluation, treatability studies, or alternative approaches. When the permittee conducts Toxicity

Identification Evaluations to characterize the nature of the constituents causing toxicity, the permittee shall perform multiple characterizations and follow the procedures specified in the documents "Methods for Aquatic Toxicity Identification Evaluations: Phase I Toxicity Characterization Procedures" (EPA 600/6-91/003) or alternate procedures. When the permittee conducts Toxicity Identification Evaluations and Confirmations, the permittee shall perform multiple identifications and follow the methods specified in the documents "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), as appropriate.

2) Sampling Plan (e.g., locations, methods, holding times, chain of custody, preservation, etc.). The effluent sample volume collected for all tests shall be adequate to perform the toxicity test, toxicity characterization, identification and confirmation procedures, and conduct chemical specific analyses when a probable toxicant has been identified; Where the permittee has identified or suspects specific pollutant(s) and/or source(s) of effluent toxicity, the permittee shall conduct, concurrent with toxicity testing, chemical specific analyses for the identified and/or suspected pollutant(s) and/or source(s) of effluent toxicity. Where toxicity was demonstrated within 24 hours of test initiation, each composite sample shall be analyzed independently. Otherwise the permittee may substitute a composite sample, comprised of equal portions of the individual composite samples, for the chemical specific analysis;

3) Quality Assurance Plan (e.g., QA/QC implementation, corrective actions, etc.); and

4) Project Organization (e.g., project staff, project manager, consulting services, etc.).

b. The permittee shall initiate the TRE Action Plan within thirty (30) days of plan and schedule submittal.

c. The permittee shall submit a quarterly TRE Activities Report to the EPA WET Coordinator (6WQ-PO) in the months of January, April, July and October, containing information on toxicity reduction evaluation activities including:
   1) Any data and/or substantiating documentation which identifies the pollutant(s) and/or source(s) of effluent toxicity;
   2) Any studies/evaluations and results on the treatability of the facility's effluent toxicity; and
   3) Any data which identifies effluent toxicity control mechanisms that will reduce effluent toxicity to the level necessary to meet no significant toxicity at the critical dilution. A copy of the TRE Activities Report shall also be submitted to the state agency.
   4) Any results and interpretation of any chemical specific analysis, and for any characterization, identification, and confirmation tests performed during the quarter.
   5) Any changes to the initial TRE plan and schedule that are believed necessary.

d. Finalizing a TRE

The permittee shall submit (to EPA 6WQ-PO) a final report on TRE activities no later than twenty-eight (28) months from confirming toxicity in the retests, which provides information pertaining to the specific control mechanism selected that will, when implemented, result in reduction of effluent toxicity to no significant toxicity at the critical dilution. The report will also provide a specific corrective action schedule for implementing the selected control mechanism. A copy of the final report on TRE Activities shall also be submitted to the state agency.

A TRE may be stopped if there is no toxicity at the critical dilution for a period of 12 consecutive months (with at least monthly testing) following confirmation of toxicity in the retests. The permittee would submit a final report to EPA at that time.

e. Quarterly testing during the TRE is a minimum monitoring requirement. EPA recommends that permittees required to perform a TRE not rely on quarterly testing alone to ensure success in the TRE, and that additional screening tests be performed to capture toxic samples for identification of toxicants. Failure to identify the specific chemical compound causing toxicity test failure will normally result in a permit limit for whole effluent toxicity limits per federal regulations at 40 CFR 122.44(d)(1)(v).

APPENDIX A of PART II

The following Minimum Quantification Levels (MQL's) are to be used for reporting pollutant data for NPDES permit applications and/or compliance reporting.

POLLUTANTS	MQL µg/l	POLLUTANTS	MQL µg/l
METALS, RADIOACTIVITY, CYANIDE and CHLORINE			
Aluminum	2.5	Molybdenum	10
Antimony	60	Nickel	0.5
Arsenic	0.5	Selenium	5
Barium	100	Silver	0.5
Beryllium	0.5	Thalllium	0.5
Boron	100	Uranium	0.1
Cadmium	1	Vanadium	50
Chromium	10	Zinc	20
Cobalt	50	Cyanide	10
Copper	0.5	Cyanide, weak acid dissociable	10
Lead	0.5	Total Residual Chlorine	33
Mercury *1	0.0005		
	0.005		
DIOXIN			
2,3,7,8-TCDD	0.00001		
VOLATILE COMPOUNDS			
Acrolein	50	1,3-Dichloropropylene	10
Acrylonitrile	20	Ethylbenzene	10
Benzene	10	Methyl Bromide	50
Bromoform	10	Methylene Chloride	20
Carbon Tetrachloride	2	1,1,2,2-Tetrachloroethane	10
Chlorobenzene	10	Tetrachloroethylene	10
Clorodibromomethane	10	Toluene	10
Chloroform	50	1,2-trans-Dichloroethylene	10
Dichlorobromomethane	10	1,1,2-Trichloroethane	10
1,2-Dichloroethane	10	Trichloroethylene	10
1,1-Dichloroethylene	10	Vinyl Chloride	10
1,2-Dichloropropane	10		
ACID COMPOUNDS			
2-Chlorophenol	10	2,4-Dinitrophenol	50
2,4-Dichlorophenol	10	Pentachlorophenol	5
2,4-Dimethylphenol	10	Phenol	10
4,6-Dinitro-o-Cresol	50	2,4,6-Trichlorophenol	10

POLLUTANTS	MQL µg/l	POLLUTANTS	MQL µg/l
BASE/NEUTRAL			
Acenaphthene	10	Dimethyl Phthalate	10
Anthracene	10	Di-n-Butyl Phthalate	10
Benzidine	50	2,4-Dinitrotoluene	10
Benzo(a)anthracene	5	1,2-Diphenylhydrazine	20
Benzo(a)pyrene	5	Fluoranthene	10
3,4-Benzofluoranthene	10	Fluorene	10
Benzo(k)fluoranthene	5	Hexachlorobenzene	5
Bis(2-chloroethyl)Ether	10	Hexachlorobutadiene	10
Bis(2-chloroisopropyl)Ether	10	Hexachlorocyclopentadiene	10
Bis(2-ethylhexyl)Phthalate	10	Hexachloroethane	20
Butyl Benzyl Phthalate	10	Indeno(1,2,3-cd)Pyrene	5
2-Chloronapthalene	10	Isophorone	10
Chrysene	5	Nitrobenzene	10
Dibenzo(a,h)anthracene	5	n-Nitrosodimethylamine	50
1,2-Dichlorobenzene	10	n-Nitrosodi-n-Propylamine	20
1,3-Dichlorobenzene	10	n-Nitrosodiphenylamine	20
1,4-Dichlorobenzene	10	Pyrene	10
3,3'-Dichlorobenzidine	5	1,2,4-Trichlorobenzene	10
Diethyl Phthalate	10		
PESTICIDES AND PCBS			
Aldrin	0.01	Beta-Endosulfan	0.02
Alpha-BHC	0.05	Endosulfan sulfate	0.02
Beta-BHC	0.05	Endrin	0.02
Gamma-BHC	0.05	Endrin Aldehyde	0.1
Chlordane	0.2	Heptachlor	0.01
4,4'-DDT and derivatives	0.02	Heptachlor Epoxide	0.01
Dieldrin	0.02	PCBs	0.2
Alpha-Endosulfan	0.01	Toxaphene	0.3

(MQL's Revised November 1, 2007)

Footnotes:

*1 Default MQL for Mercury is 0.005 unless Part I of your permit requires the more sensitive Method 1631 (Oxidation / Purge and Trap / Cold vapor Atomic Fluorescence Spectrometry), then the MQL shall be 0.0005