



REGION 6
1445 ROSS AVENUE
DALLAS, TEXAS 75202-2733 NPDES Permit No TX0127566

**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"),

Freeport LNG Terminal and Liquefaction Facility
1500 Lamar Street
Quintana, TX 77541

is authorized to discharge from a facility located at 1500 Lamar Street, Quintana, Brazoria 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 permit shall become effective on

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

Issued on

Prepared by

David F. Garcia, P. E
Acting Director
Water Division (6WQ)

Maria Okpala
Environmental Engineer
Permitting Section (6WQ-PP)

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PERMIT OUTFALL TABLE

Outfall Reference Number	Discharge Coordinates Latitude Deg° Min' Sec" Longitude Deg° Min' Sec"	County	Average Flow MGD	Receiving Water	Segment #
001	28°55' 56" N 95°18' 47" W	Brazoria	0.7575	Created Wetland thence to GIWW, thence to Gulf of Mexico	Segment No. 2501
002	28°56' 5" N 95° 18' 56" W	Brazoria	0.001400	GIWW thence to Gulf of Mexico	Segment No. 2501
003	28° 55'54" N 95°18'48" W	Brazoria	0.001350	Created wetland thence to GIWW, thence to Gulf of Mexico	Segment No. 2501
004	28° 55'46" N 95°18'58" W	Brazoria	0.001400	Created Wetland thence to GIWW, thence to Gulf of Mexico	Segment No. 2501
005	28° 56'2" N 95°19'4" W	Brazoria	0.008370	GIWW thence to Gulf of Mexico	Segment No. 2501
006	28° 55'46" N 95°19'6" W	Brazoria	0.001595	W Velasco Ditch thence to GIWW thence to Gulf of Mexico	Segment No. 2501
007	28° 55'48" N 95°19'19" W	Brazoria	0.026700	GIWW thence to Gulf of Mexico	Segment No. 2501
008	28° 55'45" N 95°19'25" W	Brazoria	0.054550	GIWW thence to Gulf of Mexico	Segment No. 2501
009	28° 55'41" N 95°19'33" W	Brazoria	0.053350	GIWW thence to Gulf of Mexico	Segment No. 2501

PART I – REQUIREMENTS FOR NPDES PERMITS

SECTION A. LIMITATIONS AND MONITORING REQUIREMENTS

1. Outfall 001 - Final Effluent Limits

During the period beginning the effective date of the permit and lasting and lasting until the expiration date, the permittee is authorized to discharge wastewater from the Air Vaporization Tower to the constructed wetland, thence the Intracoastal Waterway, thence the Gulf of Mexico, Water Body Segment Code No. 2501. Such discharges shall be limited and monitored by the permittee as specified below:

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

EFFLUENT CHARACTERISTICS		DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
		lbs/day, unless noted		mg/l, unless noted			
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, 2)	Recording Meter

EFFLUENT CHARACTERISTICS		DISCHARGE MONITORING		MONITORING REQUIREMENTS	
WHOLE EFFLUENT TOXICITY (7 Day Chronic Static Renewal NOEC) (*3)		VALUE		MEASUREMENT FREQUENCY	SAMPLE TYPE
Ceriodaphnia dubia		Report		Once/Quarter (*3)	Composite
Pimephales promelas		Report		Once/Quarter (*3)	Composite

EFFLUENT CHARACTERISTICS		DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
		lbs/day, unless noted		mg/l, unless noted			
POLLUTANT	STORET CODE	MON AVG	DAY MAX	MON AVG	DAY MAX	MEASUREMENT FREQUENCY	SAMPLE TYPE
Aluminum	01105	N/A	N/A	N/A	Report	Daily (*4)	Grab
Barium	01007	N/A	N/A	N/A	Report	Daily (*4)	Grab
Arsenic	01002	N/A	N/A	N/A	Report	Daily (*4)	Grab
Cadmium	01027	N/A	N/A	N/A	Report	Daily (*4)	Grab
Chromium	01034	N/A	N/A	N/A	Report	Daily (*4)	Grab
Copper	01042	N/A	N/A	N/A	Report	Daily (*4)	Grab
Lead	01051	N/A	N/A	N/A	Report	Daily (*4)	Grab
Mercury	71980	N/A	N/A	N/A	Report	Daily (*4)	Grab
Nickel	01067	N/A	N/A	N/A	Report	Daily (*4)	Grab
Selenium	01147	N/A	N/A	N/A	Report	Daily (*4)	Grab
Silver	01077	N/A	N/A	N/A	Report	Daily (*4)	Grab
Zinc	01092	N/A	N/A	N/A	Report	Daily (*4)	Grab
Cyanide	00720	N/A	N/A	N/A	Report	Daily (*4)	Grab
Benzene	34030	N/A	N/A	N/A	Report	Daily (*4)	Grab
Trichloroethylene	39180	N/A	N/A	N/A	Report	Daily (*4)	Grab
Vinyl Chloride	39175	N/A	N/A	N/A	Report	Daily (*4)	Grab

Footnotes:

- *1 When discharging.
- *2 The permittee shall report in writing, the date of their first discharge to all agencies listed in Part III, Section D (4), as well as the NPDES Permitting Section (6WQ-PP), Water Division, US Environmental Protection Agency, Region 6, 1445 Ross Avenue, Dallas, TX 75202-2733, within five (5) days of the occurrence of the first discharge.
- *3 Once per Quarter if discharging. Monitoring and reporting requirements begin on the effective date of this permit. See Part II, Whole Effluent Toxicity Testing Requirements, for additional WET monitoring and reporting conditions.
- *4 Once per day when discharging. Should the discharge continue for more than one day, additional samples and analyses results shall be submitted for each additional day. No more than four complete sets of analytical results are required to be submitted. The permittee shall sample for these parameters and report the results within 90 days of the first discharge from the facility. Sample results for these parameters shall be reported to all agencies listed in Part III, Section D (4), as well as the NPDES Permitting Section (6WQ-PP), Water Quality Protection Branch, US Environmental Protection Agency, Region 6, 1445 Ross Avenue, Dallas, TX 75202-2733. The permit may be reopened to establish effluent limitations for those parameters that have reasonable potential to exceed Water Quality Standards.

2. Outfall 002 - Final Effluent Limits

During the period beginning the effective date of the permit and lasting and lasting until the expiration date, the permittee is authorized to discharge stormwater from the curbed LNG process area to a valved sump, then to the Intracoastal Waterway, thence the Gulf of Mexico, Water Body Segment Code No. 2501. Such discharges shall be limited and monitored by the permittee as specified below:

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

EFFLUENT CHARACTERISTICS		DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
		lbs/day, unless noted		mg/l, unless noted			
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)
Oil & Grease	00556	Report	Report	10	15	Once/Week (*1)	Grab
Visible Oil Sheen	49498	N/A	N/A	0 Days (*3)	0 Days (*3)	Daily (*1)	Visual
Total Organic Carbon	00680	N/A	N/A	N/A	50	Once/Week (*1)	Grab
Total Residual Chlorine	50060	N/A	N/A	N/A	0.019	Once/Week (*1)	Instantaneous Grab*4

Footnotes:

*1 When discharging. Samples are to be collected during the first 30-minutes of discharge.

*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 Record the total number of days where an oil sheen is visible at the outfall. See Part II, Visible Oil Sheen, of the permit.

*4 Regulations at 40 CFR Part 136 define "instantaneous grab" as analyzed within 15 minutes of collection. The effluent limitation for TRC is the instantaneous maximum and cannot be averaged for reporting purposes.

3. Outfall 003 - Final Effluent Limits

During the period beginning the effective date of the permit and lasting and lasting until the expiration date, the permittee is authorized to discharge stormwater from the Air Vaporization Tower area, LNG Tank 1, and process areas to a valved discharge outlet then to the constructed wetland, thence the Intracoastal Waterway, thence the Gulf of Mexico, Water Body Segment Code No. 2501. Such discharges shall be limited and monitored by the permittee as specified below:

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

EFFLUENT CHARACTERISTICS		DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
		lbs/day, unless noted		mg/l, unless noted			
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)
Oil & Grease	00556	Report	Report	10	15	Once/Week (*1)	Grab
Visible Oil Sheen	49498	N/A	N/A	0 Days (*3)	0 Days (*3)	Daily (*1)	Visual
Total Organic Carbon	00680	N/A	N/A	N/A	50	Once/Week (*1)	Grab

Footnotes:

*1 When discharging. Samples are to be collected during the first 30-minutes of discharge.

*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 Record the total number of days where an oil sheen is visible at the outfall. See Part II, Visible Oil Sheen, of the permit.

4. Outfall 004 - Final Effluent Limits

During the period beginning the effective date of the permit and lasting and lasting until the expiration date, the permittee is authorized to discharge stormwater from the LNG Tank 2, LNG Tank 3, the utility area and the remainder of the process area, which is discharged through an oil/water/sediment separator (Stormceptor®), prior to going to the Tank 2 area, then to the constructed wetland, thence the Intracoastal Waterway, thence the Gulf of Mexico, Water Body Segment Code No. 2501. Such discharges shall be limited and monitored by the permittee as specified below:

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

EFFLUENT CHARACTERISTICS		DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
		lbs/day, unless noted		mg/l, unless noted			
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)
Oil & Grease	00556	Report	Report	10	15	Once/Week (*1)	Grab
Total Suspended Solids	00530	Report	Report	45	45	Once/Week (*1)	Grab
Visible Oil Sheen	49498	N/A	N/A	0 Days (*3)	0 Days (*3)	Daily (*1)	Visual
Total Organic Carbon	00680	N/A	N/A	N/A	50	Once/Week (*1)	Grab
Total Residual Chlorine	50060	N/A	N/A	N/A	0.019	Once/Week (*1)	Instantaneous Grab*4

Footnotes:

- *1 When discharging. Samples are to be collected during the first 30-minutes of discharge.
- *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 Record the total number of days where an oil sheen is visible at the outfall. See Part II, Visible Oil Sheen, of the permit.
- *4 Regulations at 40 CFR Part 136 define "instantaneous grab" as analyzed within 15 minutes of collection. The effluent limitation for TRC is the instantaneous maximum and cannot be averaged for reporting purposes.

5. Outfall 005 - Final Effluent Limits

During the period beginning the effective date of the permit and lasting and lasting until the expiration date, the permittee is authorized to discharge wastewater from firewater system (Testing), BOG Compressor, and stormwater from the Liquefaction Plant which is discharged through an oil/water/sediment separator (Stormceptor®), then to sumps, thence to the Intracoastal Waterway, thence the Gulf of Mexico, Water Body Segment Code No. 2501. Such discharges shall be limited and monitored by the permittee as specified below:

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

EFFLUENT CHARACTERISTICS		DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
		lbs/day, unless noted		mg/l, unless noted			
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)
Oil & Grease	00556	Report	Report	10	15	Once/Week (*1)	Grab
Total Suspended Solids	00530	Report	Report	45	45	Once/Week (*1)	Grab
Visible Oil Sheen	49498	N/A	N/A	0 Days (*3)	0 Days (*3)	Daily (*1)	Visual
Total Organic Carbon	00680	N/A	N/A	N/A	50	Once/Week (*1)	Grab

EFFLUENT CHARACTERISTICS		DISCHARGE MONITORING	MONITORING REQUIREMENTS	
WHOLE EFFLUENT TOXICITY (7 Day Chronic Static Renewal NOEC) (*4)		VALUE	MEASUREMENT FREQUENCY	SAMPLE TYPE (*5)
Ceriodaphnia dubia		Report	Once/Quarter (*4)	Composite
Pimephales promelas		Report	Once/Quarter (*4)	Composite

Footnotes:

- *1 When discharging. Samples are to be collected during the first 30-minutes of discharge.
- *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 Record the total number of days where an oil sheen is visible at the outfall. See Part II, Visible Oil Sheen, of the permit.
- *4 Monitoring and reporting requirements begin on the effective date of this permit. See Part II, Whole Effluent Toxicity Testing Requirements, for additional WET monitoring and reporting conditions.
- *5 The permittee shall combine the composite effluent samples from the outfalls 005, 007, 008, 009 in proportion to the flow from the outfalls that are discharging during the monitoring event. The test shall be performed on the flow weighted composite of the outfall samples.

6a. Outfall 006 - Final Effluent Limits

During the period beginning the effective date of the permit and lasting 12 months from the permit effective date, the permittee is authorized to discharge stormwater and washwater from a washrack (used to clean light utility vehicles) from the Liquefaction Plant which is discharged through an oil/water/sediment separator (Stormceptor®) to sumps, thence to the W Velasco Ditch thence to Intracoastal Waterway, thence the Gulf of Mexico, Water Body Segment Code No. 2501. Such discharges shall be limited and monitored by the permittee as specified below:

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

EFFLUENT CHARACTERISTICS		DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
		lbs/day, unless noted		mg/l, unless noted			
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)
Oil & Grease	00556	Report	Report	10	15	Once/Week (*1)	Grab
Total Suspended Solids	00530	Report	Report	45	45	Once/Week (*1)	Grab
Visible Oil Sheen	49498	N/A	N/A	0 Days (*3)	0 Days (*3)	Daily (*1)	Visual
Total Organic Carbon	00680	N/A	N/A	N/A	50	Once/Week (*1)	Grab
Total Copper	01042	N/A	N/A	Report	Report	Once/two Weeks (*1, *4)	Grab
Total Zinc	01092	N/A	N/A	Report	Report	Once/two Weeks (*1, *4)	Grab

Footnotes:

- *1 When discharging. Samples are to be collected during the first 30-minutes of discharge.
- *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 Record the total number of days where an oil sheen is visible at the outfall. See Part II, Visible Oil Sheen, of the permit.
- *4 For any reporting period, samples shall be taken at least seven (7) days from the first sample of the previous reporting period.

6b. Outfall 006 - Final Effluent Limits

During the period beginning 12 months from the effective date of the permit and lasting until the expiration date, the permittee is authorized to discharge stormwater and washwater from a washrack (used to clean light utility vehicles) from the Liquefaction Plant which is discharged through an oil/water/sediment separator (Stormceptor®) to sumps, thence to the W Velasco Ditch thence to Intracoastal Waterway, thence the Gulf of Mexico, Water Body Segment Code No. 2501. Such discharges shall be limited and monitored by the permittee as specified below:

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

EFFLUENT CHARACTERISTICS		DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
		lbs/day, unless noted		mg/l, unless noted			
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)
Oil & Grease	00556	Report	Report	10	15	Once/Week (*1)	Grab
Total Suspended Solids	00530	Report	Report	45	45	Once/Week (*1)	Grab
Visible Oil Sheen	49498	N/A	N/A	0 Days (*3)	0 Days (*3)	Daily (*1)	Visual
Total Organic Carbon	00680	N/A	N/A	N/A	50	Once/Week (*1)	Grab
Total Copper	01042	N/A	N/A	0.024	0.051	Once/two Weeks (*1, *4)	Grab
Total Zinc	01092	N/A	N/A	0.255	0.540	Once/two Weeks (*1, *4)	Grab

Footnotes:

- *1 When discharging. Samples are to be collected during the first 30-minutes of discharge.
- *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 Record the total number of days where an oil sheen is visible at the outfall. See Part II, Visible Oil Sheen, of the permit.
- *4 For any reporting period, samples shall be taken at least seven (7) days from the first sample of the previous reporting period.

7. Outfall 007 - Final Effluent Limits

During the period beginning the effective date of the permit and lasting and lasting until the expiration date, the permittee is authorized to discharge wastewater from Train 1 Compressors, Coolers, Firewater System, Eyewash/Safety Shower test, and Stormwater from the Liquefaction Plant which is discharged through an oil/water/sediment separator (Stormceptor®), then to sumps, thence to the Intracoastal Waterway, thence the Gulf of Mexico, Water Body Segment Code No. 2501. Such discharges shall be limited and monitored by the permittee as specified below:

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

EFFLUENT CHARACTERISTICS		DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
		lbs/day, unless noted		mg/l, unless noted			
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)
Oil & Grease	00556	Report	Report	10	15	Once/Week (*1)	Grab
Total Suspended Solids	00530	Report	Report	45	45	Once/Week (*1)	Grab
Visible Oil Sheen	49498	N/A	N/A	0 Days (*3)	0 Days (*3)	Daily (*1)	Visual
Total Organic Carbon	00680	N/A	N/A	N/A	50	Once/Week (*1)	Grab
Total Residual Chlorine	50060	N/A	N/A	N/A	0.019	Once/Week (*1)	Instantaneous Grab*4

EFFLUENT CHARACTERISTICS		DISCHARGE MONITORING	MONITORING REQUIREMENTS	
WHOLE EFFLUENT TOXICITY (7 Day Chronic Static Renewal NOEC) (*5)		VALUE	MEASUREMENT FREQUENCY	SAMPLE TYPE (*6)
Ceriodaphnia dubia		Report	Once/Quarter (*1)	Composite
Pimephales promelas		Report	Once/Quarter (*1)	Composite

Footnotes:

- *1 When discharging. Samples are to be collected during the first 30-minutes of discharge.
- *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 Record the total number of days where an oil sheen is visible at the outfall. See Part II, Visible Oil Sheen, of the permit.

- *4 Regulations at 40 CFR Part 136 define “instantaneous grab” as analyzed within 15 minutes of collection. The effluent limitation for TRC is the instantaneous maximum and cannot be averaged for reporting purposes.
- *5 Monitoring and reporting requirements begin on the effective date of this permit. See Part II, Whole Effluent Toxicity Testing Requirements, for additional WET monitoring and reporting conditions.
- *6 The permittee shall combine the composite effluent samples from the outfalls 005, 007, 008, 009 in proportion to the flow from the outfalls that are discharging during the monitoring event. The test shall be performed on the flow weighted composite of the outfall samples.

8. Outfall 008 - Final Effluent Limits

During the period beginning the effective date of the permit and lasting and lasting until the expiration date, the permittee is authorized to discharge wastewater from Train 2 Compressors, Coolers, Firewater, and Stormwater from the Liquefaction Plant which is discharged through an oil/water/sediment separator (Stormceptor®), then to sumps, thence to the Intracoastal Waterway, thence the Gulf of Mexico, Water Body Segment Code No. 2501. Such discharges shall be limited and monitored by the permittee as specified below:

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

EFFLUENT CHARACTERISTICS		DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
		lbs/day, unless noted		mg/l, unless noted			
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)
Oil & Grease	00556	Report	Report	10	15	Once/Week (*1)	Grab
Total Suspended Solids	00530	Report	Report	45	45	Once/Week (*1)	Grab
Visible Oil Sheen	49498	N/A	N/A	0 Days (*3)	0 Days (*3)	Daily (*1)	Visual
Total Organic Carbon	00680	N/A	N/A	N/A	50	Once/Week (*1)	Grab

EFFLUENT CHARACTERISTICS		DISCHARGE MONITORING		MONITORING REQUIREMENTS	
WHOLE EFFLUENT TOXICITY (7 Day Chronic Static Renewal NOEC) (*4)		VALUE		MEASUREMENT FREQUENCY	SAMPLE TYPE (*5)
Ceriodaphnia dubia		Report		Once/Quarter (*1)	Composite
Pimephales promelas		Report		Once/Quarter (*1)	Composite

Footnotes:

- *1 When discharging. Samples are to be collected during the first 30-minutes of discharge.
- *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 Record the total number of days where an oil sheen is visible at the outfall. See Part II, Visible Oil Sheen, of the permit.
- *4 Monitoring and reporting requirements begin on the effective date of this permit. See Part II, Whole Effluent Toxicity Testing Requirements, for additional WET monitoring and reporting conditions.
- *5 The permittee shall combine the composite effluent samples from the outfalls 005, 007, 008, 009 in proportion to the flow from the outfalls that are discharging during the monitoring event. The test shall be performed on the flow weighted composite of the outfall samples.

9. Outfall 009 - Final Effluent Limits

During the period beginning the effective date of the permit and lasting and lasting until the expiration date, the permittee is authorized to discharge wastewater from Train 3 Compressors, Coolers, Firewater System, and Stormwater from the Liquefaction Plant which is discharged through an oil/water/sediment separator (Stormceptor®), then to sumps, thence to the Intracoastal Waterway, thence the Gulf of Mexico, Water Body Segment Code No. 2501. Such discharges shall be limited and monitored by the permittee as specified below:

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

EFFLUENT CHARACTERISTICS		DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
		lbs/day, unless noted		mg/l, unless noted			
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)
Oil & Grease	00556	Report	Report	10	15	Once/Week (*1)	Grab
Total Suspended Solids	00530	Report	Report	45	45	Once/Week (*1)	Grab
Visible Oil Sheen	49498	N/A	N/A	0 Days (*3)	0 Days (*3)	Daily (*1)	Visual
Total Organic Carbon	00680	N/A	N/A	N/A	50	Once/Week (*1)	Grab

EFFLUENT CHARACTERISTICS		DISCHARGE MONITORING		MONITORING REQUIREMENTS	
WHOLE EFFLUENT TOXICITY (7 Day Chronic Static Renewal NOEC) (*4)		VALUE		MEASUREMENT FREQUENCY	SAMPLE TYPE (*5)
Ceriodaphnia dubia		Report		Once/Quarter (*1)	Composite
Pimephales promelas		Report		Once/Quarter (*1)	Composite

Footnotes:

- *1 When discharging. Samples are to be collected during the first 30-minutes of discharge.
- *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 Record the total number of days where an oil sheen is visible at the outfall. See Part II, Visible Oil Sheen, of the permit.
- *4 Monitoring and reporting requirements begin on the effective date of this permit. See Part II, Whole Effluent Toxicity Testing Requirements, for additional WET monitoring and reporting conditions.
- *5 The permittee shall combine the composite effluent samples from the outfalls 005, 007, 008, 009 in proportion to the flow from the outfalls that are discharging during the monitoring event. The test shall be performed on the flow weighted composite of the outfall samples.

FLOATING SOLIDS, VISIBLE FOAM AND/OR OILS

Surface waters shall be maintained so that oil, grease, or related residue will not produce a visible film or globules of grease on the surface or coat the banks or bottoms of the watercourse; or cause toxicity to man, aquatic life, or terrestrial life.

Samples taken in compliance with the monitoring requirements specified above for any outfall shall be taken at the discharge from the final treatment unit prior to the receiving waterbody.

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 **Total Copper and Total Zinc**:

- 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 Total Copper and Total Zinc no later than 12 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 Total Copper and Total Zinc shall expire 12 months from the permit effective date. No later than 14-days after the date compliance with the Total Copper and Total Zinc 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
1445 Ross Avenue
Dallas, TX 75202-2733

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- 12

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.

D. WATER TREATMENT CHEMICAL PROHIBITION

The permit does not authorize biocides, chlorine, halogens or chemicals containing zinc or chromium in the process wastewater.

PART II - OTHER CONDITIONS

1. 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:

$$\text{MQL} = 3.3 \times \text{MDL}$$

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 O, 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.

2. In accordance with 40 CFR 122.62, the permit may be reopened and modified during the life of the permit if relevant portions of Texas Water Quality Standards and/or Implementation of the State WQS via Permitting are revised, new water quality standards are established and/or remanded and any other policy, or if procedures and implementation guidelines are adopted by the State that change applicable water quality standards and permit implementation. Also, in accordance with 40 CFR Part 122.62, 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.

3. Sanitary waste is not authorized in this permit.

4. If a new or revised TMDL is determined for any of the receiving streams for the Outfalls listed on the Permit Outfall Table above, the permit may be reopened, and new limitations based on the TMDL may be incorporated into the permit.

5. 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.

6. STORMWATER POLLUTION PREVENTION

Stormwater is a component of the discharge through Outfalls 002 - 009. 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 implement and within six (6) months of the effective date of the final permit revise as necessary, a Storm Water Pollution Prevention Plan (SWP3). 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 Paragraph 3 below.

The following "limits" shall apply:

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; implement 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 shall maintain a site map which includes all areas where stormwater may contact potential pollutants or substances which can cause pollution. Any location where reportable quantities leaks or spills have previously occurred are to be documented in the SWP3.

The SWP3 shall contain a description of the potential pollutant sources, including, the type and quantity of material present and what action has been taken to assure stormwater precipitation will not directly contact the substances and result in contaminated runoff.

c. Where experience indicates a reasonable potential for equipment failure (e.g. a tank overflow or leakage), natural condition of (e.g. precipitation), or other circumstances which result in significant amounts of pollutants reaching surface waters, the SWP3 shall 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 local Municipal Separate Storm Sewer System (MS4) operator, Environmental Protection Agency and the Oklahoma Department of Environmental Quality.

“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 Oklahoma Department of Environmental Quality, 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.

- a. 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 immediately 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. All storage tank installations (with a capacity greater than 660 gallons for an individual container, or 1,320 gallons for two or more containers in aggregate within a common storage area) shall be constructed so that a secondary means of containment is provided for the entire contents of the largest tank plus sufficient freeboard to allow for precipitation. Diked areas should be sufficiently impervious to contain spills.
- f. All diked areas surrounding storage tanks or stormwater collection basins shall be free of residual oil or other contaminants so as to prevent the accidental discharge of these materials in the event of flooding, dike failure, or improper draining of the diked area. All drains from diked areas shall be equipped with valves which shall be kept in the closed condition except during periods of supervised discharge.
- g. 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 with the tanked products, and/or a stain pattern with 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.
- h. All check valves, tanks, drains, or other potential sources of pollutant releases shall be inspected and maintained on a regular basis to assure their proper operation and to prevent the discharge of pollutants.
- i. 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.

j. 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.

k. 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.

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

F. WHOLE EFFLUENT TOXICITY TESTING (7 DAY CHRONIC NOEC FRESHWATER)

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

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

- | | |
|------------------------------------|--------------------|
| a. APPLICABLE TO FINAL OUTFALL(S): | 001 |
| REPORTED ON DMR AS FINAL OUTFALL: | 001 |
| CRITICAL DILUTION (%): | 8 |
| EFFLUENT DILUTION SERIES (%): | 3.4, 4.5, 6, 8, 11 |
| SAMPLE TYPE: | Defined at PART I |
| TEST SPECIES/METHODS: | 40 CFR Part 136 |
| b. APPLICABLE TO FINAL OUTFALL(S): | 005,007,008,009* |
| REPORTED ON DMR AS FINAL OUTFALL: | 005 |
| CRITICAL DILUTION (%): | 8 |
| EFFLUENT DILUTION SERIES (%): | 3.4, 4.5, 6, 8, 11 |
| SAMPLE TYPE: | Defined at PART I |
| TEST SPECIES/METHODS: | 40 CFR Part 136 |

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

Ceriodaphnia dubia chronic static renewal survival and reproduction test, Method 1002.0, EPA-821-R-02-013, or the most recent update thereof. This test should be terminated when 60% of the surviving females in the control produce three broods or at the end of eight days, whichever comes first.

Pimephales promelas (Fathead minnow) chronic static renewal 7-day larval survival and growth test, Method 1000.0, EPA-821-R-02-013, or the most recent update thereof. A minimum of five (5) replicates with eight (8) organisms per replicate must be used in the control and in each effluent dilution of this test.

b. The NOEC (No Observed Lethal Effect Concentration) is 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 whole effluent toxicity limits, chemical specific effluent limits, additional testing, and/or other appropriate actions to address toxicity.

d. This permit does not establish requirements to automatically increase the WET testing frequency after a test failure, or to begin a toxicity reduction evaluation (TRE) in the event of multiple test failures. However, upon failure of any WET test, the permittee must report the test results to EPA (6WQ-PO), in writing within 5 business days of notification the test failure. EPA will review the test results and determine the appropriate action necessary, if any.

2. REQUIRED TOXICITY TESTING CONDITIONS

a. Test Acceptance

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:

- i. The toxicity test control (0% effluent) must have survival equal to or greater than 80%.
- ii. The mean number of *Ceriodaphnia dubia* neonates produced per surviving female in the control (0% effluent) must be 15 or more.
- iii. 60% of the surviving control females must produce three broods.
- iv. The mean dry weight of surviving Fathead minnow larvae at the end of the 7 days in the control (0% effluent) must be 0.25 mg per larva or greater.
- v. The percent coefficient of variation between replicates shall be 40% or less in the control (0% effluent) for: the young of surviving females in the *Ceriodaphnia dubia* reproduction test; the growth and survival endpoints of the Fathead minnow test.
- vi. The percent coefficient of variation between replicates shall be 40% or less in the critical dilution, unless significant lethal or nonlethal effects are exhibited for: the young of surviving females in the *Ceriodaphnia dubia* reproduction test; the growth and survival endpoints of the Fathead

minnow test.

- vii. A Percent Minimum Significant Difference (PMSD) range of 13 - 47 for *Ceriodaphnia dubia* reproduction;
- viii. A PMSD range of 12 - 30 for Fathead minnow growth.

Test failure may not be construed or reported as invalid due to a coefficient of variation value of greater than 40%. A repeat test shall be conducted within the required reporting period of any test determined to be invalid.

b. Statistical Interpretation

For the *Ceriodaphnia dubia* \ test and the Fathead minnow test, the statistical analyses used to determine if there is a statistically 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 EPA-821-R-02-013 or the most recent update thereof.

If the conditions of Test Acceptability are met in Item 2 above and the percent survival of the test organism is equal to or greater than 80% in the critical dilution concentration and all lower dilution concentrations, the test shall be considered to be a passing test, and the permittee shall report an NOEC of not less than the critical dilution for the DMR reporting requirements found in Item 4 below.

c. Dilution Water

i. 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;

(A) toxicity tests conducted on effluent discharges to receiving water classified as intermittent streams; and

(B) toxicity tests conducted on effluent discharges where no receiving water is available due to zero flow conditions.

ii. If the receiving water is unsatisfactory as a result of instream toxicity (fails to fulfill the test acceptance criteria of Item 3.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 dilution water control which fulfills the test acceptance requirements of Item 3.a was run concurrently with the receiving water control;

(B) the test indicating receiving water toxicity has been carried out to completion (i.e., 48 hours);

(C) the permittee includes all test results indicating receiving water toxicity with the full report and information required by Item 4 below; and

(D) 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.

d. Samples and Composites

- i. The permittee shall collect a minimum of three flow-weighted composite samples from the outfall(s) listed at Item 1.a and 1.b above.
- ii. The permittee shall collect second and third composite samples for use during 24-hour renewals of each dilution concentration for each test. The permittee must collect the composite samples such that the effluent samples are representative of any periodic episode of chlorination, biocide usage or other potentially toxic substance discharged on an intermittent basis.
- iii. The permittee must collect the composite samples so that the maximum holding time for any effluent sample shall not exceed 72 hours. 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.
- iv. 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, the minimum number of effluent portions and the sample holding time are waived during that sampling period. However, the permittee must collect an effluent sample volume during the period of discharge that is sufficient to complete the required toxicity tests with daily renewal of effluent. When possible, the effluent samples used for the toxicity tests shall be collected on separate days. The effluent sample collection duration and the static renewal protocol associated with the abbreviated sample collection must be documented in the full report required in Item 4 of this section.

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 EPA-821-R-02-013, for every valid or invalid toxicity test initiated, whether carried to completion or not. The permittee shall retain each full report pursuant to the provisions of PART III.C.3 of this permit. The permittee shall submit full reports 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 on the DMR 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.

c. The permittee shall report the following results of each valid toxicity test on the subsequent monthly DMR for that reporting period in accordance with PART III.D.4 of this permit. 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.

i. *Pimephales promelas* (Fathead minnow)

- (A) If the No Observed Effect Concentration (NOEC) for survival is less than the critical dilution, enter a '1'; otherwise, enter a '0' for Parameter No. TLP6C
- (B) Report the NOEC value for survival, Parameter No. TOP6C
- (C) Report the Lowest Observed Effect Concentration (LOEC) value for survival, Parameter No. TXP6C
- (D) Report the NOEC value for growth, Parameter No. TPP6C
- (E) Report the LOEC value for growth, Parameter No. TYP6C
- (F) If the No Observed Effect Concentration (NOEC) for growth is less than the critical dilution, enter a '1'; otherwise, enter a '0' for Parameter No. TGP6C
- (G) Report the highest (critical dilution or control) Coefficient of Variation, Parameter No. TQP6C

ii. *Ceriodaphnia dubia*

- (A) If the NOEC for survival is less than the critical dilution, enter a '1'; otherwise, enter a '0' for Parameter No. TLP3B
- (B) Report the NOEC value for survival, Parameter No. TOP3B
- (C) Report the LOEC value for survival, Parameter No. TXP3B
- (D) Report the NOEC value for reproduction, Parameter No. TPP3B
- (E) Report the LOEC value for reproduction, Parameter No. TYP3B
- (F) If the No Observed Effect Concentration (NOEC) for reproduction is less than the critical dilution, enter a '1'; otherwise, enter a '0' for Parameter No. TGP3B
- (G) Report the higher (critical dilution or control) Coefficient of

Variation, Parameter No. TQP3B

- d. Enter the following codes on the DMR for retests only:
- i. For retest number 1, Parameter 22415, enter a "1" if the NOEC for survival and/or sublethal effects is less than the critical dilution; otherwise, enter a "0."
 - ii. For retest number 2, Parameter 22416, enter a "1" if the NOEC for survival and/or sublethal effects is less than the critical dilution; otherwise, enter a "0."

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	Thallium	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
Chlorodibromomethane	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	POLLUTANTS	MQL

	µg/l		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-Chloronaphthalene	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

