



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 6  
1445 ROSS AVENUE, SUITE 1200  
DALLAS, TX 75202-2733

MAY 31 2016

CERTIFIED MAIL: RETURN RECEIPT REQUESTED (P 7014 0150 0000 2453 3177)

REPLY TO: 6WQ-NP

Ms. Melanie A. Little  
Magellan Pipeline Company  
One William Center, MD 27  
Tulsa, OK 74172

Re: NPDES Application No. TX0134015 – Magellan East Houston Terminal

Dear Ms. Little:

This package constitutes EPA's final permit decision for the above referenced facility. Enclosed are the responses to comments received during the public comment period and the final permit. According to EPA regulations at 40 CFR 124.19, within 30 days after a final permit decision has been issued, any person who filed comments on the draft permit or participated in the public hearing may petition the Environmental Appeals Board to review any condition of the permit decision.

Should you have any questions regarding the final permit, please feel free to contact Maria Okpala of the NPDES Permits Branch at the above address or by telephone: (214) 665-3152, by fax: (214) 665-2191, or by E-mail: [okpala.maria@epa.gov](mailto:okpala.maria@epa.gov). Should you have any questions regarding compliance with the conditions of this permit, please contact the Water Enforcement Branch at the above address or by telephone: (214) 665-6468.

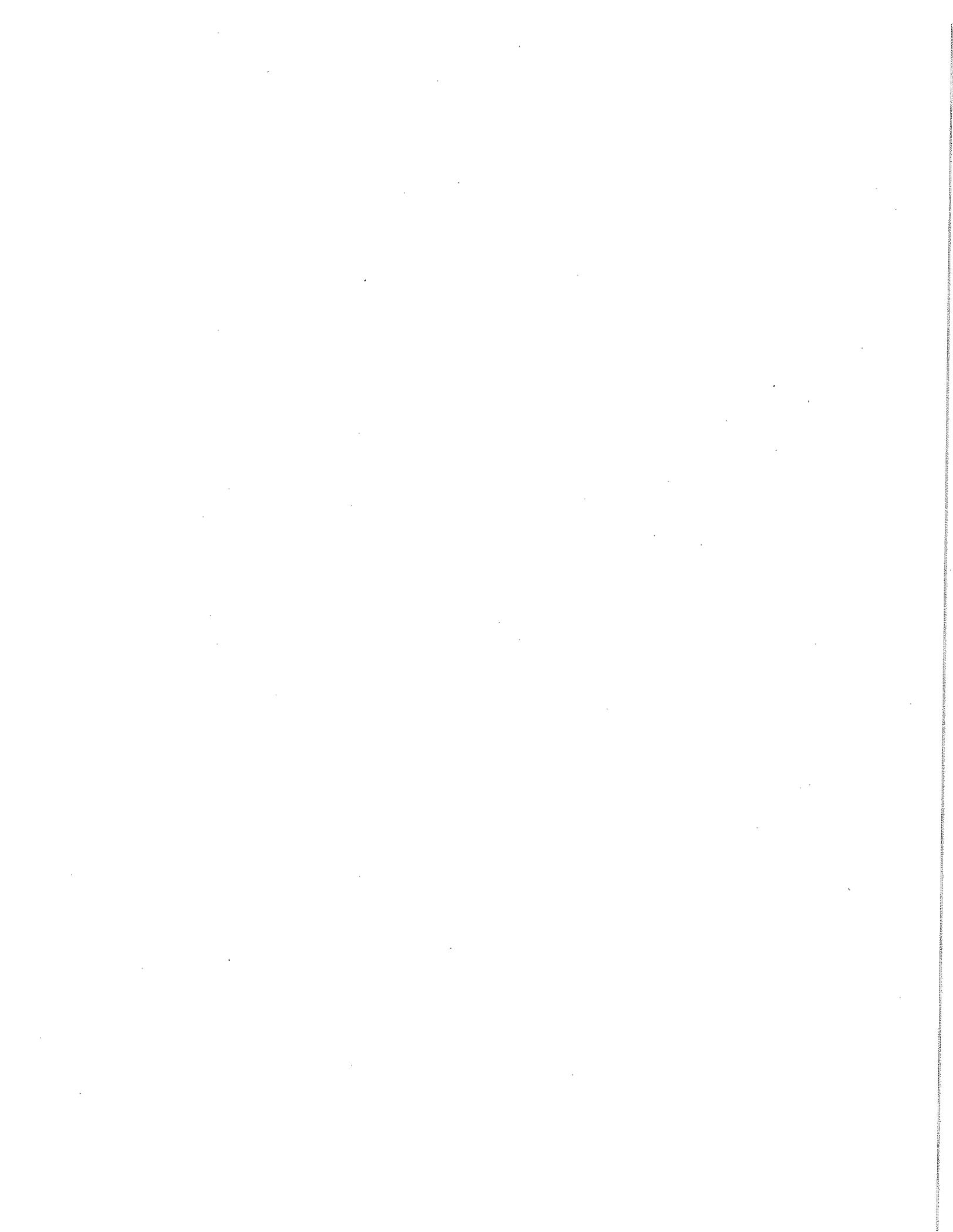
Sincerely yours,

A handwritten signature in black ink, appearing to read "William K. Honker".

*for*  
William K. Honker, P.E.  
Director  
Water Division

Enclosures

cc w/enclosures:  
Texas Railroad Commission



NPDES PERMIT NO. TX0134015  
RESPONSE TO COMMENTS

RECEIVED ON THE SUBJECT DRAFT  
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)  
PERMIT IN ACCORDANCE WITH REGULATIONS LISTED AT 40CFR124.17

APPLICANT:

Magellan East Houston Terminal  
One William Center, MD 27  
Tulsa, OK 74172

ISSUING OFFICE:

U.S. Environmental Protection Agency  
Region 6  
1445 Ross Avenue  
Dallas, Texas 75202-2733

PREPARED BY:

Maria Okpala  
Environmental Engineer  
Permits Section (6WQ-PP)  
NPDES Permits Branch  
Water Quality Protection Division  
Telephone: 214-665-3152  
FAX: 214-665-2191  
EMAIL: [okpala.maria@epa.gov](mailto:okpala.maria@epa.gov)

PERMIT ACTION: Final permit decision and response to comments received on the proposed  
NPDES permit publicly noticed on March 26, 2016.

DATE PREPARED: May 11, 2016

**Introduction.** For brevity, Region 6 used acronyms and abbreviated terminology in this response to comments document whenever possible. The following acronyms were used frequently in this document: Act (Clean Water Act), EPA (Environmental Protection Agency), NPDES (National Pollutant Discharge Elimination System), RRC (Railroad Commission of Texas), SOB (Statement of Basis), WET (Whole Effluent Toxicity) and WQS (Water Quality Standards).

Unless otherwise stated, citations to 40 CFR refer to promulgated regulations listed at Title 40, Code of Federal Regulations, revised as of April 22, 2016.

### **CHANGES FROM DRAFT PERMIT**

EPA made the following changes to the draft NPDES permit publicly noticed on March 26, 2016:

1. A 24-Hr. acute tests using 100% effluent has been established in the final permit.
2. The footnote (\*1, when discharging) has been added for both *Ceriodaphnia dubia* and *Pimephales promelas* in the final permit.
3. The language on the prohibition on the use of chemicals in the hydrostatic test has been removed in the final permit.
4. Outfalls 001 to 008 have been included (under Page 2 of Part II, "Whole Effluent Toxicity Testing (WET) Testing, Section 1, Scope and Methodology") in the final permit.

### **STATE CERTIFICATION**

In a letter from Leslie Savage, Water Quality Certification Agent (RRC) to Maria Okpala, Permitting Section, Water Division (EPA) dated April 29, 2016; the RRC certifies that the permitted activities will be conducted in a manner which will not violate any applicable water quality requirements. The Commission hereby grants certification of the referenced permit for compliance with applicable state water quality laws.

### **COMMENTS FROM MAGELLAN EAST HOUSTON TERMINAL**

**Comment No. 1:** The permittee requested that the footnote (\*1, when discharging) be added for both *Ceriodaphnia dubia* and *Pimephales promelas*, to be consistent with the other parameters that are required to be routinely monitored only when discharges occur.

**Response No. 1:** The footnote (\*1, when discharging) has been added for both *Ceriodaphnia dubia* and *Pimephales promelas* in the final permit.

**Comment No. 2:** The permittee noted that WET testing requirements were placed in the draft permit in response to the facility proposing the use of chemical treatment for the hydrostatic test water. The facility requested that a provision be placed in the draft permit that clarifies that WET testing is only required when the facility has treated the hydrostatic test water with a chemical additive.

**Response No. 2:** EPA concurs with the facility that WET testing requirements were placed in the permit based on the facility proposing the use of chemical treatment for hydrostatic test water. To be consistent with other permits issued in the Region, EPA cannot delineate in the permit that biomonitoring is only required when the hydrostatic water is treated with chemical additive. EPA notes that if the facility decides to remove the use of chemical additive, EPA will remove the WET testing requirements. No change has been made to the final permit.

**Comment No. 3:** The permittee requested that the 7-day chronic WET testing requirements be replaced with 48-hour acute testing requirements for Outfalls 001 to 008. The facility noted that discharges from the facility are extremely intermittent and variable in duration. The facility believed that 48-hour acute testing would be more appropriate for the intermittent discharges.

**Response No.3:** The most current Texas Implementation Procedures established the type of WET testing to be conducted based on the nature of the receiving stream. Page 112 of the 2010 Implementation Procedures did state that permittees that discharge directly into perennial freshwater streams or rivers with a designated or limited, intermediate, high, or exceptional aquatic life use will conduct chronic testing.

However, since the discharges are highly intermittent in nature, lasting from a few hours to a few days, the permittee shall perform a 24-hour acute tests using 100% effluent. This end-of pipe test measures compliance with 30 TAC §307.6(e)(2)(B) of the TSWQS, which requires that greater than 50% of the test organisms survive exposure to 100% effluent for 24 hours. The test shall be a 24-Hour, LC-50 at 100% critical dilution. This test shall be protective of the direct end-of-pipe discharge. The frequency for this test shall be once/six months when discharging. This provision is designed to ensure that water in the state will not be acutely toxic to aquatic life.

But if discharges from the facility should exceed 3 consecutive days, discharges will now be considered continuous and the facility shall perform 7-day chronic test. The critical dilution will be based on the effluent flow and critical low-flow of the stream or river. The Implementation Procedure also stated that if the critical dilution is less than 5%, the TCEQ requires 48-hour acute testing and uses an acute-to-chronic ratio (ACR) of 10:1 to determine the appropriate critical dilution. However, the critical dilution for Magellan East Houston Terminal is 44.8%, which is more than the 5% CD required for an acute test to be conducted.

**Comment No. 4:** The permittee requested (under Other Condition, F) that the prohibition on the use of chemicals in the hydrostatic test be removed from the draft permit because the facility has requested the use of chemicals, such as oxygen scavenger, as part of its permit modification.

**Response No. 4:** The language on Page 2 of Part II, under Other Conditions, F, has been removed from the final permit.

**Comment No. 5:** The permittee noted that the monitoring and reporting requirements found on Page 4 of Part I, the WET testing requirements apply to Outfalls 001 to 008. The permittee requested that EPA revise the "Applicable to Final Outfall(s):" item to include all Outfalls, (Outfalls 001 to 008) to be consistent with the requirements found on Page 4 of Part I of the draft

permit.

**Response No. 5:** Outfalls 001 to 008 have been included (under Page 2 of Part II, “Whole Effluent Toxicity Testing (WET) Testing, Section 1, Scope and Methodology”) in the final permit.



REGION 6  
1445 ROSS AVENUE  
DALLAS, TEXAS 75202-2733

NPDES Permit No TX0134015

---

**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"),

Magellan East Houston Terminal  
One William Center, MD 27  
Tulsa, OK 74172

is authorized to discharge hydrostatic test water from crude oil tanks and pipelines, tanks roof float water, and other maintenance activities located at 7901 Wallisville Road, Harris 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 an existing permit which became effective on *July 1, 2016*

This permit and the authorization to discharge shall expire at midnight, May 31, 2020

Issued on *MAY 31, 2016*

Prepared by

*for* William K. Honker, P.E.  
Director  
Water Division (6WQ)

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

This page is intentionally left blank

PERMIT OUTFALL TABLE

Outfall Reference Number	Discharge Coordinates Latitude Deg° Min' Sec" Longitude Deg° Min' Sec"	County	Max Flow MGD	Receiving Water	Segment #
001	29° 47' 43.905" N 95° 17' 4.699" W	Harris	0.72	Hunting Bayou	Segment No. 1007
002	29° 47' 46.723" N 95° 16' 59.554" W	Harris	0.72	Hunting Bayou	Segment No. 1007
003	29° 47' 52.263" N 95° 16' 54.416" W	Harris	0.72	Hunting Bayou	Segment No. 1007
004	29° 47' 56.396" N 95° 16' 49.741" W	Harris	0.72	Hunting Bayou	Segment No. 1007
005	29° 47' 57.770" N 95° 16' 44.400" W	Harris	0.72	Hunting Bayou	Segment No. 1007
006	29° 47' 58.451" N 95° 16' 42.168" W	Harris	0.72	Hunting Bayou	Segment No. 1007
007	29° 47' 49.692" N 95° 16' 59.097" W	Harris	0.72	Hunting Bayou	Segment No. 1007
008	29° 47' 54.637" N 95° 16' 54.136" W	Harris	0.72	Hunting Bayou	Segment No. 1007

PART I - REQUIREMENTS FOR NPDES PERMITS

SECTION A. LIMITATIONS AND MONITORING REQUIREMENTS

1. Outfalls 001 to 008 - Final Effluent Limits

During the period beginning on the effective date of the permit and lasting until the expiration date, the permittee is authorized to discharge hydrostatic test water from crude oil tanks and pipelines, crude oil tanks roof float water, and other maintenance activities from Outfall 001 to 008, thence to Hunting Bayou. Such discharges shall be limited and monitored by the permittee as specified below:

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

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS		
	STORET CODE	lbs/day, unless noted	mg/L, unless noted	MON AVG	DAY MAX	MEASUREMENT FREQUENCY	SAMPLE TYPE
Flow	50050	Report MGD	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)	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	
	30-Day AVG MINIMUM	7-Day MINIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE
WHOLE-EFFLUENT TOXICITY TESTING (Texas 24-Hour Acute LC50)(*6, *7)	Report	Report	Once/6-months (*1)	Grab
Ceriodaphnia dubia	Report	Report	Once/6-months (*1)	Grab
Pimephales promelas	Report	Report	Once/6-months (*1)	Grab

EFFLUENT CHARACTERISTICS	DISCHARGE MONITORING	MONITORING REQUIREMENTS
WHOLE EFFLUENT TOXICITY TESTING (7 day, Static Renewal) (*6, *7)	30-Day AVG MINIMUM Report	MEASUREMENT FREQUENCY Once/Quarter (*1)
Ceriodaphnia dubia	Report	24-Hr Composite
Pimephales promelas	Report	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. In particular, 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 applies only to discharges from existing pipelines and tanks.
- \*6 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
- \*7 24-hour acute test is required for discharges from a few hours to 3 days, at a minimum of once per six months. If discharges from the facility should exceed 3 consecutive days, discharges will now be considered continuous and the facility shall perform 7-day chronic test, at a minimum of once ever quarter.

## SAMPLING LOCATION(S) AND OTHER REQUIREMENTS

## SAMPLING LOCATION(S)

Samples taken in compliance with the monitoring requirements specified above shall be taken at the discharge point prior to the receiving stream.

## FLOATING SOLIDS, VISIBLE FOAM AND/OR OILS

The discharge shall not cause oil, grease, or related residue which produces a visible film or globules of grease on the surface or coat the banks or bottoms of the watercourse; or toxicity to man, aquatic life, or terrestrial life.

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

## OTHER REQUIREMENT

All hydrostatic test water shall be free from any kind of welding scrap or other foreign material before being discharged into the receiving waters.

## B. SCHEDULE OF COMPLIANCE

The permittee shall achieve compliance with the effluent limitations specified for discharges in accordance with the following schedule:

NONE

## C. MONITORING AND REPORTING (MINOR DISCHARGERS)

1. Monitoring results must be reported to EPA on either the electronic or paper Discharge Monitoring Report (DMR) approved formats. Monitoring results can be submitted electronically in lieu of the paper DMR Form. All DMRs shall be electronically reported

effective December 21, 2016, per 40 CFR 127.16. To submit electronically, access the NetDMR website at [www.epa.gov/netdmr](http://www.epa.gov/netdmr) and contact the [R6NetDMR@epa.gov](mailto:R6NetDMR@epa.gov) in-box for further instructions. Until you are approved for Net DMR, you must report on the Discharge Monitoring Report (DMR) Form EPA No. 3320-1 in accordance with the "General Instructions" provided on the form. No additional copies are needed if reporting electronically, however when submitting paper form EPA No. 3320-1, 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 other agencies 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.

ELECTRONIC REPORTING RULE

The EPA published the electronic reporting rule in the federal register (80 FR 64063) on October 22, 2015. The rule became effective on December 21, 2015. One year after the effective date of the final rule, NPDES regulated entities that are required to submit DMRs (including majors and non-majors, individually permitted facilities and facilities covered by general permits) must do so electronically. EPA and authorized NPDES programs will begin electronically receiving these DMRs from all DMR filers and start sharing these data with each other.

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. 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 CONDITIONS

## GENERAL:

## A. MINIMUM QUANTIFICATION LEVEL (MQL)

See list of MQL's at Appendix A of Part II below. For pollutants listed on Appendix A of Part II with MQL's, analyses must be performed to the listed MQL. 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.

In addition, any additional pollutant sampling for purposes of this permit, including renewal applications or any other reporting, shall be tested to the MQL shown on the attached Appendix A of Part II. Results of analyses that are less than the listed MQL may be reported as "non detect" (ND).

## 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, and concurrently to Railroad Commission of Texas, within 24 hours from the time the permittee becomes aware of the violation followed by a written report in five days.

None

## 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. 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.

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.

E. Sanitary waste is not authorized in this permit.

F. 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.

G. 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

#### H. WHOLE EFFLUENT TOXICITY TESTING (TEXAS 24 HOUR ACUTE LC50 FRESHWATER)

##### 1. SCOPE AND METHODOLOGY

a. The provisions of this section shall apply individually and separately to the outfalls listed below. No samples or portions of samples from one outfall may be composited with samples or portions of samples from another outfall. The provisions of this section are in addition to other biomonitoring requirements in this permit.

APPLICABLE TO FINAL OUTFALL(S): 001

COMPOSITE SAMPLE TYPE: Defined at PART I

TEST SPECIES/METHODS: 40 CFR Part 136

Ceriodapnia dubia or Daphnia pulex acute static nonrenewal 24 hour toxicity test using EPA-821-R-02-012 or the latest 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.

Pimephales promelas acute static nonrenewal 24 hour toxicity test using EPA-821-R-02-012 or the latest 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.

24 HOUR ACUTE TEST SUBSTITUTIONS If any other tests conducted under biomonitoring requirements elsewhere in PART II of this permit include the 100% effluent concentration in the

dilution series, the mean survival results at 24 hours from those tests, for each species, may be submitted to fulfill the requirements of this section. See Item 4.b of this section for acceptable test substitutions. The >50% survival in 100% effluent for 24 hour period standard applies to all tests utilizing a 100% effluent dilution, regardless of whether the results are submitted for compliance with the minimum testing frequency.

b. The permittee shall test the effluent for lethality in accordance with the provisions of this section. Such testing will determine if an effluent sample meets the Texas Surface Water Quality Standard listed at 30 TAC '307.6(e)(2)(B) of greater than 50% survival of the appropriate test organisms in 100% effluent for a 24 hour period.

c. The permittee shall submit the results of these tests on the Discharge Monitoring Report (DMR) due in the month following the test.

d. Five (5) dilutions in addition to an appropriate control (0% effluent) shall be used in the tests. These effluent concentrations shall be 11.2%, 22.4%, 44.8%, 72.4%, 100%

e. 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.

## 2. PERSISTENT LETHALITY

a. If any toxicity test at the 100% effluent concentration demonstrates 50% or greater mortality, the permittee shall conduct two (2) additional tests (retests) for each species that demonstrates mortality and report these results as required in Item 4 of this section. The two additional retests shall be conducted monthly during the next two consecutive months. Five (5) dilutions in addition to an appropriate control (0% effluent) shall be used in the two (2) retests. These effluent concentrations shall be 11.2%, 22.4%, 44.8%, 72.4%, 100%. If one of the retests indicates 50% or greater mortality at the 100% effluent concentration, the permittee shall notify the EPA in writing within five (5) days. If none of the retests indicates 50% or greater mortality at the 100% effluent concentration, the permittee shall continue testing at the original frequency.

b. Within thirty (30) days after submitting the original and retest results which demonstrate 50% or greater mortality at the 100% effluent concentration, the permittee shall initiate a Toxicity Reduction Evaluation (TRE) in accordance with the procedures stated Item 5 below and substituting the timetable given in Item 2.c, below. The permittee shall continue biomonitoring quarterly (as a minimum) during the TRE, using the affected species, unless otherwise authorized by the permitting authority. All information related to the TRE shall be directed to the Environmental Protection Agency, Region 6 office, Toxicity Coordinator.

c. Within eighteen (18) months from the date of completion of the test confirming 50% or greater mortality at the 100% effluent concentration, the permittee shall submit a Final Report on Toxicity Reduction Activities detailing the specific actions and control mechanism(s) and necessary to achieve greater than 50% survival in 100% effluent for a period of 24 hours. The final report shall also contain a corrective action schedule for implementing the control measures outlined.

### 3. REQUIRED TOXICITY TESTING CONDITIONS

#### a. Control/Dilution Water

Control and/or dilution water used in the test shall normally consist of a standard, synthetic, moderately hard, reconstituted water of similar pH and alkalinity to the closest downstream perennial water. If the permittee is utilizing the results of a 48 hour acute test or 7 day chronic test to satisfy these 24 hour acute biomonitoring requirements in accordance with Item 1.a, the permittee may use receiving water as the control and dilution water if the control meets the requirements of Item 3.b.

#### b. Control Survival

If more than 10% of the test organisms in any control die within 24 hours, that test including the control and all effluent dilution(s) shall be repeated with all results from both tests reported as per Item 4 of this section.

#### c. Repeat Test

The permittee shall repeat a test, including the control and all effluent dilutions, if the procedures and test acceptability criteria requirements defined in the test methods or in this permit are not satisfied. A repeat test shall be conducted within the required reporting period of any test determined to be invalid, in accordance with Item 3.b of this section.

#### d. Samples and Composites

**GRAB samples are authorized for this test.** The samples shall be collected at a point following the last treatment unit.

One **grab** sample representative of normal operating flows will be collected from each outfall, and a discrete test will be run on each **grab** sample.

Samples shall be chilled to 4 degrees Centigrade during collection, shipping, and/or storage. The toxicity tests must be initiated within 36 hours after collection of the **grab** sample. The **grab** sample must be collected such that the sample is representative of any periodic episode of chlorination, biocide usage, or other potentially toxic substance discharged on an intermittent basis.

### 4. 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-02-012 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 the information contained in any full report upon the specific request of the Agency.

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

i. *Daphnia pulex* or *Ceriodaphnia dubia*

- Enter the following codes on the DMR for Parameter No. TIE3D:
- "0" if mean survival at 24 hrs. is greater than 50% in 100% effluent;
- "1" if the mean survival at 24 hrs. is less than or equal to 50% in 100% effluent.

In cases of test substitution (See 24 HOUR ACUTE TEST SUBSTITUTIONS, Item 1.a, above), mean survival results in 100% effluent from the 48 hr. *Daphnia pulex* or *Ceriodaphnia dubia* acute test, determined at 24 hrs., shall be reported on the DMR under Parameter No. TIE3D.

ii. *Pimephales promelas*

- Enter the following codes on the DMR for Parameter No. TIE6C:
- "0" if mean survival at 24 hrs. is greater than 50% in 100% effluent;
- "1" if the mean survival at 24 hrs. is less than or equal to 50% in 100% effluent.

In cases of test substitution (See 24 HOUR ACUTE TEST SUBSTITUTIONS, Item 1.a, above), mean survival results in 100% effluent from the 48 hr *Pimephales promelas* acute test, determined at 24 hrs., shall be reported on the DMR under Parameter No. TIE6C.

iii. Enter the following codes for retests only:

- For retest number 1, Parameter 22415, enter "0" if mean survival at 24 hrs. is greater than 50% in 100% effluent dilution; or "1" if the mean survival at 24 hrs. is less than or equal to 50% in 100% effluent.
- For retest number 2, Parameter 22416, enter "0" if mean survival at 24 hrs. is greater than 50% in 100% effluent dilution; or "1" if the mean survival at 24 hrs. is less than or equal to 50% in 100% effluent.

## 5. TEXAS 24 HR LC50 TOXICITY REDUCTION EVALUATION (TRE)

a. Within thirty (30) days of confirming lethality in the retests, the permittee shall submit a Toxicity Reduction Evaluation (TRE) Action Plan and Schedule for conducting a TRE. The TRE Action Plan shall specify the approach and methodology to be used in performing the TRE. A Toxicity Reduction Evaluation 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:

i. **Specific Activities.** The plan shall detail the specific approach the permittee intends to utilize in conducting the TRE. The approach may include toxicity characterizations, identifications and confirmation activities, source evaluation, treatability studies, or alternative approaches. When the permittee conducts Toxicity Characterization Procedures, 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;

The documents referenced above may be obtained through the National Technical Information Service (NTIS) by phone at (703) 487-4650, or by writing:

U.S. Department of Commerce  
National Technical Information Service  
5285 Port Royal Road  
Springfield, VA 22161

ii. **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;

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

iv. **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. The permittee shall assume all risks for failure to achieve the required toxicity reduction.

c. The permittee shall submit a quarterly TRE Activities Report with the Discharge Monitoring Report in the months of January, April, July, and October containing information on toxicity reduction evaluation activities including:

i. any data and/or substantiating documentation which identifies the pollutant(s) and/or source(s) of effluent toxicity;

ii. any studies/evaluations and results on the treatability of the facility's effluent toxicity; and

iii. any data which identifies effluent toxicity control mechanisms that will reduce effluent toxicity to the level necessary to meet the Texas Surface Water Quality Standard listed at 30 TAC '307.6(e)(2)(B) of greater than 50% survival of the appropriate test organisms in 100% effluent for a 24 hour period.

d. The permittee shall submit a Final Report on Toxicity Reduction Evaluation Activities no later than eighteen (18) months from confirming lethality in the retests, which provides information pertaining to the specific control mechanism selected that will, when implemented, result in reduction of effluent toxicity to less than 50% mortality in 100% effluent after 24 hours. The report will also provide a specific corrective action schedule for implementing the selected control mechanism.

TRE Reports shall be submitted to the Environmental Protection Agency, Region 6 office, Toxicity Coordinator.

#### I. 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

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

APPLICABLE TO FINAL OUTFALL(S): 001 to 008

REPORTED ON DMR AS FINAL OUTFALL: 001 to 008

CRITICAL DILUTION (%): 44.8%

EFFLUENT DILUTION SERIES (%): 18.9%, 25.2%, 33.6%, 44.8%, and 59.7%

COMPOSITE SAMPLE TYPE: Defined at PART I

TEST SPECIES/METHODS: 40 CFR Part 136

*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 herein defined as the greatest effluent dilution at and below which toxicity 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 whole effluent toxicity limits, chemical specific effluent limits, additional testing, and/or other appropriate actions to address toxicity.

## 2. PERSISTENT LETHAL and/or SUB-LETHAL EFFECTS

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. The purpose of additional tests (also referred to as 'retests' or confirmation tests) 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 or sub-lethal effects to a test species at or below the critical dilution, the frequency of testing for that species is automatically increased to once per quarter for the life of the permit.

### a. Part I Testing Frequency Other Than Monthly

- i. The permittee shall conduct a total of three (3) additional tests for any species that demonstrates significant toxic effects at or below the critical dilution. The 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 procedures outlined in Item 4 of this section and submitted with the period discharge monitoring report (DMR) to the permitting authority for review.

- ii. **IF LETHAL EFFECTS HAVE BEEN DEMONSTRATED** If any of the additional tests demonstrates significant lethal effects at or below the critical dilution, the permittee shall initiate Toxicity Reduction Evaluation (TRE) requirements as specified in Item 5 of this section. The permittee shall notify EPA in writing within 5 days 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 be also be required due to a demonstration of intermittent lethal effects at or below the critical dilution, or for failure to perform the required retests.
- iii. **IF ONLY SUB-LETHAL EFFECTS HAVE BEEN DEMONSTRATED** If any two of the three additional tests demonstrates significant sub-lethal effects at or below the critical dilution, the permittee shall initiate the Sub-Lethal Toxicity Reduction Evaluation (FRESL) requirements as specified in Item 5 of this section. The permittee shall notify EPA in writing within 5 days of the failure of any retest, and the Sub-Lethal Effects TRE initiation date will be the test completion date of the first failed retest. A TRE may be also be required for failure to perform the required retests.
- iv. The provisions of Item 2.a.i. are suspended upon submittal of the TRE Action Plan.

b. Part I Testing Frequency of Monthly

The permittee shall initiate the Toxicity Reduction Evaluation (TRE) requirements as specified in Item 5 of this section when any two of three consecutive monthly toxicity tests exhibit significant lethal effects at or below the critical dilution. A TRE may also be required due to a demonstration of intermittent lethal and/or sub-lethal effects at or below the critical dilution, or for failure to perform the required retests.

3. 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

- i. For the Ceriodaphnia dubia survival test, the statistical analyses used to determine if there is a significant difference between the control and the critical dilution shall be Fisher's Exact Test as described in EPA/821/R-02-013 or the most recent update thereof.
- ii. For the Ceriodaphnia dubia reproduction test and the Fathead minnow larval survival and growth test, 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 EPA/821/R-02-013 or the most recent update thereof.
- iii. If the conditions of Test Acceptability are met in Item 3.a 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 a survival 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., 7 days);
  - (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 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 composite 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 if the discharge occurs over multiple 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 4 of this section.
- v. MULTIPLE OUTFALLS: If 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.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.

#### 4. REPORTING

- a. The permittee shall prepare a full report of the results of all tests conducted pursuant to this section in accordance with the Report Preparation Section of EPA/821/R-02-013, or the most current publication, 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. Only ONE set of biomonitoring data for each species is to be recorded on the DMR for each reporting period. The data submitted should reflect the LOWEST lethal and sub-lethal effects results for each species during the reporting period. All invalid tests, repeat tests (for invalid tests), and retests (for tests previously failed) performed during the reporting period must be attached to the DMR for EPA review.
- c. The permittee shall submit the 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, 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.

- 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 sub-lethal 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 sub-lethal effects is less than the critical dilution; otherwise, enter a '0'
- iii. For retest number 3, Parameter 51443, enter a '1' if the NOEC for survival and/or sub-lethal effects is less than the critical dilution; otherwise, enter a '0'

#### 5. TOXICITY REDUCTION EVALUATIONS (TREs)

TREs for lethal and sub-lethal effects are performed in a very similar manner. EPA Region 6 is currently addressing TREs as follows: a sub-lethal TRE (TRESL) is triggered based on three sub-lethal test failures while a lethal effects TRE (TREL) is triggered based on only two test failures for lethality.

- a. Within ninety (90) days of confirming persistent toxicity, the permittee shall submit a Toxicity Reduction Evaluation (TRE) Action Plan and Schedule for conducting a TRE. The TRE Action Plan shall specify the approach and methodology to be used in performing the TRE. A Toxicity Reduction Evaluation 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 goal of the TRE is to maximally reduce the toxic effects of effluent at the critical dilution and includes the following:
  - i. **Specific Activities.** The plan shall detail the specific approach the permittee intends to utilize in conducting the TRE. The approach may include toxicity characterizations, identifications and confirmation activities, source evaluation, treatability studies, or alternative approaches. When the permittee conducts Toxicity Characterization Procedures 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) and 'Toxicity Identification Evaluation: Characterization of Chronically Toxic Effluents, Phase I' (EPA-600/6-91/005F), 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.

The documents referenced above may be obtained through the National Technical Information Service (NTIS) by phone at (703) 487-4650, or by writing:

U.S. Department of Commerce  
National Technical Information Service  
5285 Port Royal Road  
Springfield, VA 22161

- ii. 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 lethality was demonstrated within 48 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;
  - iii. Quality Assurance Plan (e.g., QA/QC implementation, corrective actions, etc.); and
  - iv. 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. The permittee shall assume all risks for failure to achieve the required toxicity reduction.
  - c. The permittee shall submit a quarterly TRE Activities Report, with the Discharge Monitoring Report in the months of January, April, July and October, containing information on toxicity reduction evaluation activities including:
    - i. any data and/or substantiating documentation which identifies the pollutant(s) and/or source(s) of effluent toxicity;
    - ii. any studies/evaluations and results on the treatability of the facility's effluent toxicity; and
    - iii. any data which identifies effluent toxicity control mechanisms that will reduce effluent toxicity to the level necessary to meet no significant lethality at the critical dilution.

- d. The permittee shall submit a Final Report on Toxicity Reduction Evaluation Activities no later than twenty-eight (28) months from confirming lethality 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 lethality at the critical dilution. The report will also provide a specific corrective action schedule for implementing the selected control mechanism.
- 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).

TRE reports shall be submitted to the Environmental Protection Agency, Region 6 office, Toxicity Coordinator.

#### 6. 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 one or both 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 Fathead minnow) and not less than twice per year for the more sensitive test species (usually the *Ceriodaphnia dubia*).
- b. **CERTIFICATION** - The permittee must certify in writing that no test failures have occurred and that all tests meet all test acceptability criteria in item 3.a. above. In addition the permittee must provide a list with each test performed including test initiation date, species, NOECs for lethal and sub-lethal effects and the maximum coefficient of variation for the controls. 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 Permit Compliance System section to update the permit reporting requirements.
- c. **SUB-LETHAL OR SURVIVAL FAILURES** - If any test fails the survival or sub-lethal endpoint at any time during the life of this permit, three monthly retests are required and the monitoring frequency for the affected test species shall be increased to once per quarter until the permit is re-issued. Monthly retesting is not required if the permittee is performing a TRE.

Any monitoring frequency reduction granted 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.

**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.

<b>POLLUTANTS</b>	<b>MQL µg/l</b>	<b>POLLUTANTS</b>	<b>MQL µg/l</b>
<b>METALS, RADIOACTIVITY, CYANIDE and CHLORINE</b>			
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 µg/l	POLLUTANTS	MQL µg/l
<b>BASE/NEUTRAL</b>			
Acenaphthene	10	Dimethyl Phthalate	10
Anthracene	10	Di-n-Butyl Phthalate	10
Benidine	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		
<b>PESTICIDES AND PCBS</b>			
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

PART III - STANDARD CONDITIONS FOR NPDES PERMITSA. GENERAL CONDITIONS1. INTRODUCTION

In accordance with the provisions of 40 CFR Part 122.41, et. seq., this permit incorporates by reference ALL conditions and requirements applicable to NPDES Permits set forth in the Clean Water Act, as amended, (hereinafter known as the "Act") as well as ALL applicable regulations.

2. DUTY TO COMPLY

The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

3. TOXIC POLLUTANTS

a. Notwithstanding Part III.A.5, if any toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is promulgated under Section 307(a) of the Act for a toxic pollutant which is present in the discharge and that standard or prohibition is more stringent than any limitation on the pollutant in this permit, this permit shall be modified or revoked and reissued to conform to the toxic effluent standard or prohibition.

b. The permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Act for toxic pollutants within the time provided in the regulations that established those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

4. DUTY TO REAPPLY

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit. The application shall be submitted at least 180 days before the expiration date of this permit. The Director may grant permission to submit an application less than 180 days in advance but no later than the permit expiration date. Continuation of expiring permits shall be governed by regulations promulgated at 40 CFR Part 122.6 and any subsequent amendments.

5. PERMIT FLEXIBILITY

This permit may be modified, revoked and reissued, or terminated for cause in accordance with 40 CFR 122.62-64. The filing of a request for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

6. PROPERTY RIGHTS

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

7. DUTY TO PROVIDE INFORMATION

The permittee shall furnish to the Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Director, upon request, copies of records required to be kept by this permit.

8. CRIMINAL AND CIVIL LIABILITY

Except as provided in permit conditions on "Bypassing" and "Upsets", nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance. Any false or materially misleading representation or concealment of information required to be reported by the provisions of the permit, the Act, or applicable regulations, which avoids or effectively defeats the regulatory purpose of the Permit may subject the Permittee to criminal enforcement pursuant to 18 U.S.C. Section 1001.

9. OIL AND HAZARDOUS SUBSTANCE LIABILITY

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under Section 311 of the Act.

10. STATE LAWS

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable State law or regulation under authority preserved by Section 510 of the Act.

11. SEVERABILITY

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

B. PROPER OPERATION AND MAINTENANCE

1. NEED TO HALT OR REDUCE NOT A DEFENSE

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. The permittee is responsible for maintaining adequate safeguards to prevent the discharge of untreated or inadequately treated wastes during electrical power failure either by means of alternate power sources, standby generators or retention of inadequately treated effluent.

2. DUTY TO MITIGATE

The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

3. PROPER OPERATION AND MAINTENANCE

- a. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by permittee as efficiently as possible and in a manner which will minimize upsets and discharges of excessive pollutants and will achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of this permit.
- b. The permittee shall provide an adequate operating staff which is duly qualified to carry out operation, maintenance and testing functions required to insure compliance with the conditions of this permit.

4. BYPASS OF TREATMENT FACILITIES

a. BYPASS NOT EXCEEDING LIMITATIONS

The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Parts III.B.4.b. and 4.c.

b. NOTICE

(1) ANTICIPATED BYPASS

If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten days before the date of the bypass.

(2) UNANTICIPATED BYPASS

The permittee shall, within 24 hours, submit notice of an unanticipated bypass as required in Part III.D.7.

c. PROHIBITION OF BYPASS

- (1) Bypass is prohibited, and the Director may take enforcement action against a permittee for bypass, unless:
- (a) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

- (b) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and,
  - (c) The permittee submitted notices as required by Part III.B.4.b.
- (2) The Director may allow an anticipated bypass after considering its adverse effects, if the Director determines that it will meet the three conditions listed at Part III.B.4.c(1).

5. UPSET CONDITIONS

- a. EFFECT OF AN UPSET  
An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of Part III.B.5.b. are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.
- b. CONDITIONS NECESSARY FOR A DEMONSTRATION OF UPSET  
A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
  - (1) An upset occurred and that the permittee can identify the cause(s) of the upset;
  - (2) The permitted facility was at the time being properly operated;
  - (3) The permittee submitted notice of the upset as required by Part III.D.7; and,
  - (4) The permittee complied with any remedial measures required by Part III.B.2.
- c. BURDEN OF PROOF  
In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

6. REMOVED SUBSTANCES

Unless otherwise authorized, solids, sewage sludges, filter backwash, or other pollutants removed in the course of treatment or wastewater control shall be disposed of in a manner such as to prevent any pollutant from such materials from entering navigable waters.

7. PERCENT REMOVAL (PUBLICLY OWNED TREATMENT WORKS)

For publicly owned treatment works, the 30-day average (or Monthly Average) percent removal for Biochemical Oxygen Demand and Total Suspended Solids shall not be less than 85 percent unless otherwise authorized by the permitting authority in accordance with 40 CFR 133.103.

C. MONITORING AND RECORDS

1. INSPECTION AND ENTRY

The permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and other documents as may be required by the law to:

- a. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
- b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices or operations regulated or required under this permit; and

- d. Sample or monitor at reasonable times, for the purpose of assuring permit compliance or as otherwise authorized by the Act, any substances or parameters at any location.

2. REPRESENTATIVE SAMPLING

Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

3. RETENTION OF RECORDS

The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report, or application. This period may be extended by request of the Director at any time.

4. RECORD CONTENTS

Records of monitoring information shall include:

- a. The date, exact place, and time of sampling or measurements;
- b. The individual(s) who performed the sampling or measurements;
- c. The date(s) and time(s) analyses were performed;
- d. The individual(s) who performed the analyses;
- e. The analytical techniques or methods used; and
- f. The results of such analyses.

5. MONITORING PROCEDURES

- a. Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit or approved by the Regional Administrator.
- b. The permittee shall calibrate and perform maintenance procedures on all monitoring and analytical instruments at intervals frequent enough to insure accuracy of measurements and shall maintain appropriate records of such activities.
- c. An adequate analytical quality control program, including the analyses of sufficient standards, spikes, and duplicate samples to insure the accuracy of all required analytical results shall be maintained by the permittee or designated commercial laboratory.

6. FLOW MEASUREMENTS

Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated, and maintained to insure that the accuracy of the measurements is consistent with the accepted capability of that type of device. Devices selected shall be capable of measuring flows with a maximum deviation of less than 10% from true discharge rates throughout the range of expected discharge volumes.

D. REPORTING REQUIREMENTS

1. PLANNED CHANGES

a. INDUSTRIAL PERMITS

The permittee shall give notice to the Director as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:

- (1) The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR Part 122.29(b); or,
- (2) The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements listed at Part III.D.10.a.

- b. MUNICIPAL PERMITS  
Any change in the facility discharge (including the introduction of any new source or significant discharge or significant changes in the quantity or quality of existing discharges of pollutants) must be reported to the permitting authority. In no case are any new connections, increased flows, or significant changes in influent quality permitted that will cause violation of the effluent limitations specified herein.
2. ANTICIPATED NONCOMPLIANCE  
The permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.
3. TRANSFERS  
This permit is not transferable to any person except after notice to the Director. The Director may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under the Act.
4. DISCHARGE MONITORING REPORTS AND OTHER REPORTS  
Monitoring results must be reported on Discharge Monitoring Report (DMR) Form EPA No. 3320-1 in accordance with the "General Instructions" provided on the form. 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 at the address below. Duplicate copies of DMR's and all other reports shall be submitted to the appropriate State agency(ies) at the following address(es):
- EPA:  
Compliance Assurance and Enforcement Division  
Water Enforcement Branch (6EN-W)  
U.S. Environmental Protection Agency, Region 6  
1445 Ross Avenue  
Dallas, TX 75202-2733
- Texas:  
Program Manager  
Environmental Services  
Railroad Commission of Texas  
1701 North Congress Avenue  
P.O. Box 12967  
Austin, Texas 78711-2967
5. ADDITIONAL MONITORING BY THE PERMITTEE  
If the permittee monitors any pollutant more frequently than required by this permit, using test procedures approved under 40 CFR Part 136 or as specified in this permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the Discharge Monitoring Report (DMR). Such increased monitoring frequency shall also be indicated on the DMR.
6. AVERAGING OF MEASUREMENTS  
Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the Director in the permit.
7. TWENTY-FOUR HOUR REPORTING
- a. The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall be provided within 5 days of the time the permittee becomes aware of the circumstances. The report shall contain the following information:
- (1) A description of the noncompliance and its cause;
  - (2) The period of noncompliance including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and,
  - (3) Steps being taken to reduce, eliminate, and prevent recurrence of the noncomplying discharge.

- b. The following shall be included as information which must be reported within 24 hours:
- (1) Any unanticipated bypass which exceeds any effluent limitation in the permit;
  - (2) Any upset which exceeds any effluent limitation in the permit; and,
  - (3) Violation of a maximum daily discharge limitation for any of the pollutants listed by the Director in Part II (industrial permits only) of the permit to be reported within 24 hours.
- c. The Director may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.
8. OTHER NONCOMPLIANCE  
The permittee shall report all instances of noncompliance not reported under Parts III.D.4 and D.7 and Part I.B (for industrial permits only) at the time monitoring reports are submitted. The reports shall contain the information listed at Part III.D.7.
9. OTHER INFORMATION  
Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, it shall promptly submit such facts or information.
10. CHANGES IN DISCHARGES OF TOXIC SUBSTANCES  
All existing manufacturing, commercial, mining, and silvacultural permittees shall notify the Director as soon as it knows or has reason to believe:
- a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant listed at 40 CFR Part 122, Appendix D, Tables II and III (excluding Total Phenols) which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
    - (1) One hundred micrograms per liter (100 µg/L);
    - (2) Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/L) for 2,4-dinitro-phenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
    - (3) Five (5) times the maximum concentration value reported for that pollutant in the permit application; or
    - (4) The level established by the Director.
  - b. That any activity has occurred or will occur which would result in any discharge, on a nonroutine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
    - (1) Five hundred micrograms per liter (500 µg/L);
    - (2) One milligram per liter (1 mg/L) for antimony;
    - (3) Ten (10) times the maximum concentration value reported for that pollutant in the permit application; or
    - (4) The level established by the Director.
11. SIGNATORY REQUIREMENTS  
All applications, reports, or information submitted to the Director shall be signed and certified.
- a. ALL PERMIT APPLICATIONS shall be signed as follows:
    - (1) FOR A CORPORATION - by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:
      - (a) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision

making functions for the corporation; or,

- (b) The manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.
- (2) FOR A PARTNERSHIP OR SOLE PROPRIETORSHIP - by a general partner or the proprietor, respectively.
  - (3) FOR A MUNICIPALITY, STATE, FEDERAL, OR OTHER PUBLIC AGENCY - by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes:
    - (a) The chief executive officer of the agency, or
    - (b) A senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency.
- b. ALL REPORTS required by the permit and other information requested by the Director shall be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:
- (1) The authorization is made in writing by a person described above;
  - (2) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, or position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. A duly authorized representative may thus be either a named individual or an individual occupying a named position; and,
  - (3) The written authorization is submitted to the Director.

c. CERTIFICATION

Any person signing a document under this section shall make the following certification:

"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 persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

12. AVAILABILITY OF REPORTS

Except for applications, effluent data, permits, and other data specified in 40 CFR 122.7, any information submitted pursuant to this permit may be claimed as confidential by the submitter. If no claim is made at the time of submission, information may be made available to the public without further notice.

E. PENALTIES FOR VIOLATIONS OF PERMIT CONDITIONS

1. CRIMINAL

a. NEGLIGENT VIOLATIONS

The Act provides that any person who negligently violates permit conditions implementing Section 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to a fine of not less than \$2,500 nor more than \$25,000 per day of violation, or by imprisonment for not more than 1 year, or both.

- b. KNOWING VIOLATIONS  
The Act provides that any person who knowingly violates permit conditions implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to a fine of not less than \$5,000 nor more than \$50,000 per day of violation, or by imprisonment for not more than 3 years, or both.
- c. KNOWING ENDANGERMENT  
The Act provides that any person who knowingly violates permit conditions implementing Sections 301, 302, 303, 306, 307, 308, 318, or 405 of the Act and who knows at that time that he is placing another person in imminent danger of death or serious bodily injury is subject to a fine of not more than \$250,000, or by imprisonment for not more than 15 years, or both.
- d. FALSE STATEMENTS  
The Act provides that any person who knowingly makes any false material statement, representation, or certification in any application, record, report, plan, or other document filed or required to be maintained under the Act or who knowingly falsifies, tampers with, or renders inaccurate, any monitoring device or method required to be maintained under the Act, shall upon conviction, be punished by a fine of not more than \$10,000, or by imprisonment for not more than 2 years, or by both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment shall be by a fine of not more than \$20,000 per day of violation, or by imprisonment of not more than 4 years, or by both. (See Section 309.c.4 of the Clean Water Act)
2. CIVIL PENALTIES  
The Act provides that any person who violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to a civil penalty not to exceed \$27,500 per day for each violation.
3. ADMINISTRATIVE PENALTIES  
The Act provides that any person who violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to an administrative penalty, as follows:
- a. CLASS I PENALTY  
Not to exceed \$16,000 per violation nor shall the maximum amount exceed \$37,500.
- b. CLASS II PENALTY  
Not to exceed \$16,000 per day for each day during which the violation continues nor shall the maximum amount exceed \$177,500.
- F. DEFINITIONS  
All definitions contained in Section 502 of the Act shall apply to this permit and are incorporated herein by reference. Unless otherwise specified in this permit, additional definitions of words or phrases used in this permit are as follows:
1. ACT means the Clean Water Act (33 U.S.C. 1251 et. seq.), as amended.
2. ADMINISTRATOR means the Administrator of the U.S. Environmental Protection Agency.
3. APPLICABLE EFFLUENT STANDARDS AND LIMITATIONS means all state and Federal effluent standards and limitations to which a discharge is subject under the Act, including, but not limited to, effluent limitations, standards or performance, toxic effluent standards and prohibitions, and pretreatment standards.
4. APPLICABLE WATER QUALITY STANDARDS means all water quality standards to which a discharge is subject under the Act.
5. BYPASS means the intentional diversion of waste streams from any portion of a treatment facility.
6. DAILY DISCHARGE means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in terms of mass, the "daily discharge" is calculated as the total mass of the pollutant discharged over the sampling day. For pollutants with limitations expressed in other units of measurement, the "daily discharge" is calculated as the average measurement of the pollutant over the sampling day. "Daily discharge" determination of concentration made using a

composite sample shall be the concentration of the composite sample. When grab samples are used, the "daily discharge" determination of concentration shall be arithmetic average (weighted by flow value) of all samples collected during that sampling day.

7. DAILY MAXIMUM discharge limitation means the highest allowable "daily discharge" during the calendar month.
8. DIRECTOR means the U.S. Environmental Protection Agency Regional Administrator or an authorized representative.
9. ENVIRONMENTAL PROTECTION AGENCY means the U.S. Environmental Protection Agency.
10. GRAB SAMPLE means an individual sample collected in less than 15 minutes.
11. INDUSTRIAL USER means a nondomestic discharger, as identified in 40 CFR 403, introducing pollutants to a publicly owned treatment works.
12. MONTHLY AVERAGE (also known as DAILY AVERAGE) discharge limitations means the highest allowable average of "daily discharge(s)" over a calendar month, calculated as the sum of all "daily discharge(s)" measured during a calendar month divided by the number of "daily discharge(s)" measured during that month. When the permit establishes daily average concentration effluent limitations or conditions, the daily average concentration means the arithmetic average (weighted by flow) of all "daily discharge(s)" of concentration determined during the calendar month where C = daily concentration, F = daily flow, and n = number of daily samples; daily average discharge =
 
$$\frac{C_1F_1 + C_2F_2 + \dots + C_nF_n}{F_1 + F_2 + \dots + F_n}$$
13. NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under Sections 307, 318, 402, and 405 of the Act.
14. SEVERE PROPERTY DAMAGE means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
15. SEWAGE SLUDGE means the solids, residues, and precipitates separated from or created in sewage by the unit processes of a publicly owned treatment works. Sewage as used in this definition means any wastes, including wastes from humans, households, commercial establishments, industries, and storm water runoff that are discharged to or otherwise enter a publicly owned treatment works.
16. TREATMENT WORKS means any devices and systems used in the storage, treatment, recycling and reclamation of municipal sewage and industrial wastes of a liquid nature to implement Section 201 of the Act, or necessary to recycle or reuse water at the most economical cost over the estimated life of the works, including intercepting sewers, sewage collection systems, pumping, power and other equipment, and their appurtenances, extension, improvement, remodeling, additions, and alterations thereof.
17. UPSET means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.
18. FOR FECAL COLIFORM BACTERIA, a sample consists of one effluent grab portion collected during a 24-hour period at peak loads.
19. The term "MGD" shall mean million gallons per day.
20. The term "mg/L" shall mean milligrams per liter or parts per million (ppm).
21. The term "µg/L" shall mean micrograms per liter or parts per billion (ppb).

22. MUNICIPAL TERMS

- a. 7-DAY AVERAGE or WEEKLY AVERAGE, other than for fecal coliform bacteria, is the arithmetic mean of the daily values for all effluent samples collected during a calendar week, calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges measured during that week. The 7-day average for fecal coliform bacteria is the geometric mean of the values for all effluent samples collected during a calendar week.
- b. 30-DAY AVERAGE or MONTHLY AVERAGE, other than for fecal coliform bacteria, is the arithmetic mean of the daily values for all effluent samples collected during a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month. The 30-day average for fecal coliform bacteria is the geometric mean of the values for all effluent samples collected during a calendar month.
- c. 24-HOUR COMPOSITE SAMPLE consists of a minimum of 12 effluent portions collected at equal time intervals over the 24-hour period and combined proportional to flow or a sample collected at frequent intervals proportional to flow over the 24-hour period.
- d. 12-HOUR COMPOSITE SAMPLE consists of 12 effluent portions collected no closer together than one hour and composited according to flow. The daily sampling intervals shall include the highest flow periods.
- e. 6-HOUR COMPOSITE SAMPLE consists of six effluent portions collected no closer together than one hour (with the first portion collected no earlier than 10:00 a.m.) and composited according to flow.
- f. 3-HOUR COMPOSITE SAMPLE consists of three effluent portions collected no closer together than one hour (with the first portion collected no earlier than 10:00 a.m.) and composited according to flow.