



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 6

1445 ROSS AVENUE, SUITE 1200

DALLAS, TX 75202-2733

SEP 30 2016

REPLY TO: 6WQ-PP

CERTIFIED MAIL: RETURN RECEIPT REQUESTED (7015 1520 0003 4072 5394)

Mr. Wayne McDowell  
Chevron Phillips Chemical Company, LP  
P.O. Box 1000  
Sweeny, TX 77480

Re: Application to Discharge to Waters of the United States - Chevron Phillips Chemical,  
Clemens Terminal NPDES Permit No. TX0007587

Dear Mr. McDowell:

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 that 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 Nichole Young of the NPDES Permits & TMDL Branch at the above address or by telephone: (214) 665-6447, by fax: (214) 665-2191, or by E-mail: [young.nichole@epa.gov](mailto:young.nichole@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,

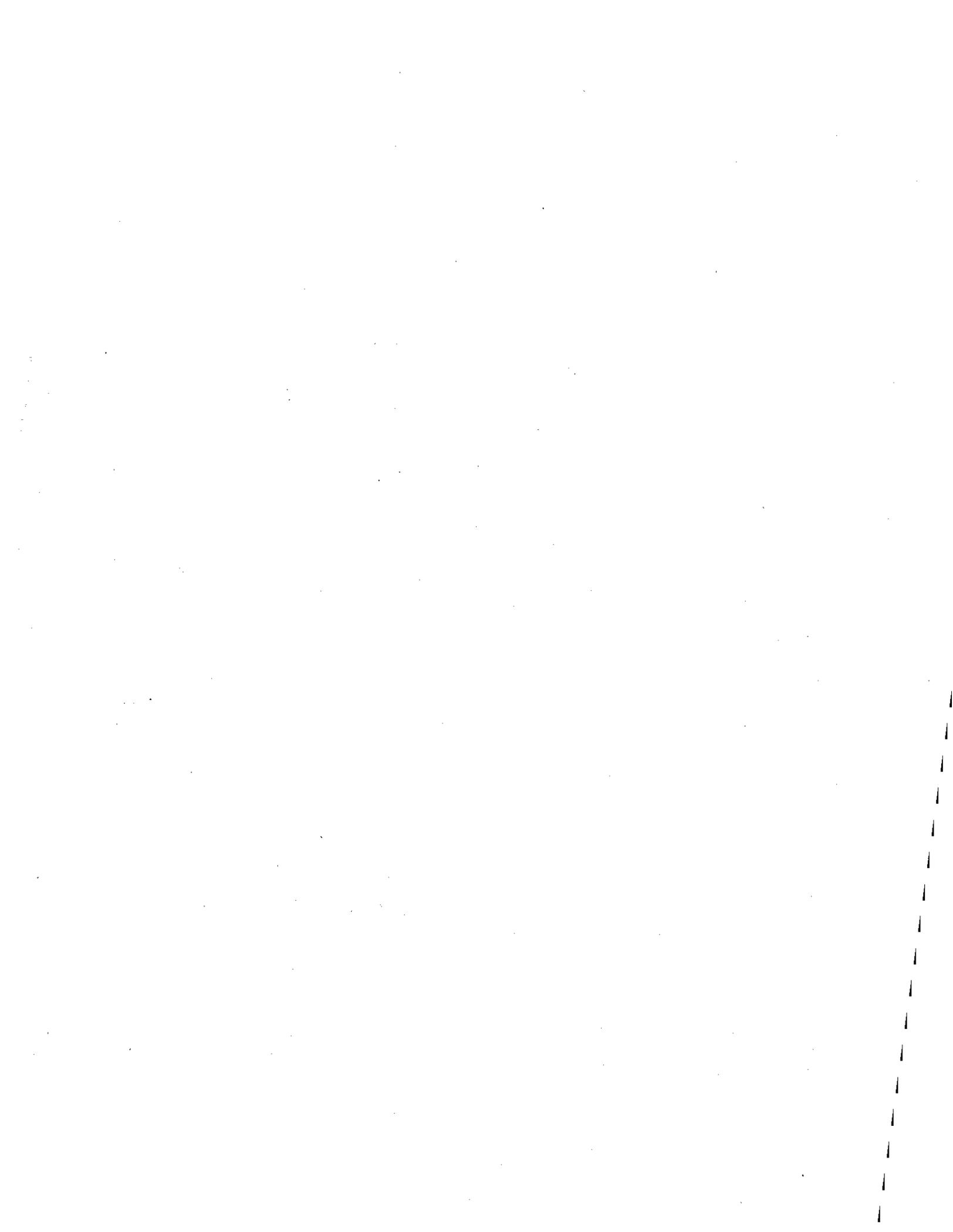
A handwritten signature in blue ink, appearing to read "William K. Honker".

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

Enclosures

cc w/enclosures:

Railroad Commission of Texas



**NPDES PERMIT NO. TX0007587**  
**RESPONSE TO COMMENTS**

RECEIVED ON THE SUBJECT DRAFT NATIONAL POLLUTANT DISCHARGE  
ELIMINATION SYSTEM (NPDES) PERMIT IN ACCORDANCE WITH REGULATIONS  
LISTED AT 40 CFR 124.17

APPLICANT: Chevron Phillips Chemical  
Clemens Terminal  
P.O. Box 1000  
Sweeny, TX 77480

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

PREPARED BY: Nichole Young  
Life Scientist  
NPDES Permits Branch (6WQ-PP)  
Water Quality Division  
Voice: 214-665-6447  
Fax: 214-665-2191  
Email: [young.nichole@epa.gov](mailto:young.nichole@epa.gov)

PERMIT ACTION: Final permit decision and response to comments received on the proposed NPDES permit publicly noticed on May 27, 2016.

DATE PREPARED: September 6, 2016

Unless otherwise stated, citations to 40 CFR refer to promulgated regulations listed at Title 40, Code of Federal Regulations, revised as of March 17, 2016.

**CHANGES FROM THE DRAFT PERMIT**

- Mercury and benzidine numeric limits have been removed from Outfalls 001 and 004.
- Thallium report only requirement has been removed from Outfalls 001 and 004.
- Copper numeric limit has been removed at Outfall 004 and replaced with a report only requirement.
- WET limits have been removed from Outfall 001.
- The schedule of compliance and progress report requirements have been removed for copper, thallium, mercury, and WET.
- The Critical Dilution at Outfall 001 has been reduced from 5% to 2%.

## STATE CERTIFICATION

In a letter from Leslie Savage, Water Quality Certification Agent, Rail Road Commission of Texas, to William K. Honker, P.E., Director, Water Quality Protection Division (EPA) dated August, 30, 2016, the RRC certified that the discharge will comply with the applicable provisions of Section 208(e), 301, 302, 303, 306 and 307 of the Clean Water Act and with appropriate requirements of State law.

The RRC stated that the proposed permit could be made less stringent and still not be in violation of state water quality standards or result in an inconsistency with the Texas Coastal Management Program if it were revised to address the applicant's concerns in its letter dated June 24, 2016.

## CONDITIONS OF CERTIFICATION

None.

## RESPONSE TO COMMENTS

EPA received comments from one individual/entity:

1. Chevron Phillip Chemical, letter dated June 24, 2016

**Comment 1:** "CPC does not believe that the addition of water quality based limits for the new parameters is necessary or appropriate for either Outfall 001 or Outfall 004. We have conducted additional sampling for the parameters in question and made a correction to an error in the effluent data concentration that was originally submitted with the permit application. The update sampling results for each parameter is summarized in the attached table and compared to the 70%/85% criteria for the calculated limits. Each parameter is discussed below:

**Mercury:** The effluent data table submitted with the original application contained an error regarding the units for the mercury result. The correct result for sample collected 11/15/2016 was <0.0820 ug/l. This result is well below 70% of the calculated daily average limit. For this reason, CPC requests the removal of mercury limits from both Outfall 001 and 004.

**Benzidine:** The initial sampling result for benzidine was <53.3 ug/l, which is slightly above the MQL of 50 ug/l. The result of a second sample was <0.58 ug/l, which is an order of magnitude lower than the MQL. Given that it was not detected in the second sample result there is no reason to believe that benzidine is present in the effluent, CPC requests that the benzidine limits be removed from both Outfalls 001 and 004.

**Thallium:** The resampling of the effluent for Thallium provided a non-detect result. The averages of the two results is <3.4 ug/l, which is below 70% of the calculated daily average limit. Therefore CPC requests that the thallium limits be removed from both outfalls.

Copper: The resampling of the effluent for copper resulted in a concentration of 15.0 ug/l. The average of the two effluent samples is 18.25 ug/l. This is less than 85% of the calculated limited but more than 70%. In accordance with RP procedures, the numeric limit for copper at Outfall 004 should be removed and replaced with report only requirement.

Please review the attached revised pages V-3 and V-6 of the NPDES application for your reference. The tables have been revised and updated in accordance with the above discussion

**EPA Response 1:**

Mercury: The EPA acknowledges the typographical error in units in the permit application in regards to mercury. EPA agrees that the corrected concentration is below 70% of the calculated daily average limit for mercury and has removed the mercury limit.

Benzidine: The EPA has taken the sample into account. Because the effluent data provided (<0.58 ug/l) is below the MQL (50 ug/l), there is no reason to believe that benzidine is present in the effluent. As a result, the limit for benzidine will be removed for Outfalls 001 and 004.

Thallium: The EPA has taken the additional sample in consideration and agrees that the average of 3.4 ug/l is below 70% of the calculated daily average limit for thallium. Thallium requirement to report has been removed for Outfalls 001 and 004.

Copper: The EPA has taken the additional sample into consideration and agrees that the average exceeds only the 70% calculated daily average. Copper limit has been removed and replaced with a report only requirement for Outfall 004.

**Comment 2:** Based on the changes requested above, the requirement in Part I, Section B of the permit (page 7 of Part I) to file progress reports on the compliance with water quality standards-based effluent limits should be removed.

**EPA Response 2:** The EPA has removed limits for copper, thallium, mercury and WET. Therefore, the schedule of compliance and progress reports requirements will be removed for all of the stated parameters.

**Comment 3:** There are errors in the discussion of toxics in the Statement of Basis on page 9 and 10. The 70% calculated daily average and 85% calculated daily average numbers cited for mercury are incorrect for both Outfall 001 and Outfall 004. Based on the TexTox printouts attached to the Statement of Basis, the correct numbers are those provided in the attached table.

**EPA Response 3:** According to the TexTox tables, the mercury 70% calculated daily average for Outfall 001 and 004 was 0.598 ug/l. The 85% calculated daily average for Outfall 001 and 004 was 0.726 ug/l. These values were correctly reported in the Statement of Basis.

#### **Comment 4**

On May 11, 2016 Chevron Philips sent the EPA a request to close out the TRE investigation. The investigation which was performed by Atkins Laboratories determined that potassium deficiency is the primary cause of sublethal toxicity. This conclusion is consistent with the nature of the Clemens Terminal effluent and history of toxicity studies performed on the discharge. The effluent is saturated or near-saturated brine produced from a natural salt-dome formation. The brine is characterized by high levels of sodium and chloride ions which is deficient with respect to other major seawater consistent, including potassium. Previous studies demonstrated that observed toxicity was due to an ion imbalance and the issue was resolved (with EPA Region 6 approval) by switching to a reconstituted freshwater as the test dilute studies. In addition, Atkins raises the salinity of the diluted rinse solution to a minimum target salinity of 31% by volume through the use of dry sea salt. Even with the previously implemented measures, the TRE studies have demonstrated that higher concentration test solutions may still be deficient in potassium to the extent that sublethal toxicity is periodically observed. Testing and modeling have indicated that this situation can be potentially resolved by raising the target salinity from 31% to 34% by volume. CPC has requested this change from EPA Region 6 and we are awaiting approval. Since toxicity issues we are experiencing is caused by a deficiency in ions which are not characteristic of our brine, we are requesting that the wet limit be removed from the permit by maintaining the reporting only condition that currently exists in our permit.

#### **EPA Response 4**

EPA has concurred and agreed to remove the WET limit, at Outfall 001, from the permit and maintain the report only condition. EPA has also agreed to integrate a 2% critical dilution into permit at Outfall 001, in lieu of a 5% critical dilution, at the permittees' request.



REGION 6  
1445 ROSS AVENUE  
DALLAS, TEXAS 75202-2733

NPDES Permit No TX0007587

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**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"),

Chevron Phillips Chemical  
Clemens Terminal  
P.O. Box 1000  
Sweeny, TX 77480

is authorized to discharge from a facility located at 2611 County Road 314, Brazoria, Brazoria County, Texas, to San Bernard River Tidal in Waterbody Segment Code No. 1301 of the Brazos-Colorado Coastal Basin and to the Brazos River Tidal in Waterbody Segment Code No. 1201 of the Brazos River Basin from:

Outfall 001: Latitude 28° 59' 01"N; Longitude 95° 34' 03"W  
Outfall 004: Latitude 28° 56' 30"; Longitude 95° 22' 50"

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

This permit shall become effective on *NOVEMBER 1, 2016*

This permit and the authorization to discharge shall expire at midnight, *OCTOBER 31, 2021*

Issued on **SEP 30 2016**

Prepared by

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

Nichole L. Young  
Life Scientist  
Permitting Section (6WQ-PP)

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**PART I – REQUIREMENTS FOR NPDES PERMITS****SECTION A. LIMITATIONS AND MONITORING REQUIREMENTS**

## 1. Outfall 001

During the period beginning on the effective date of the permit and lasting through the expiration date, the permittee is authorized to discharge brine production water from Outfall 001 to the San Bernard River, of the Brazos-Colorado Coastal Basin, in Water Body Segment No. 1301. Such discharges shall be limited and monitored by the permittee as specified below:

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

EFFLUENT CHARACTERISTICS		DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
		lbs/day, unless noted		mg/l, unless noted			
POLLUTANT	STORET CODE	MONTHLY AVG	DAILY MAX	MONTHLY AVG	DAILY MAX	MEASUREMENT FREQUENCY	SAMPLE TYPE
Flow	50050	Report, MGD	Report, MGD	N/A	N/A	Once/Day (*1)	Measure
Oil & Grease	00556	N/A	N/A	10	15	Once/Week (*1)	Grab
Total Organic Carbon	00680	N/A	N/A	20	30	Once/Week (*1)	Grab
Stream Flow Rate(*2)	00058	Report MGD	Report MGD	N/A	N/A	Once/Day (*3)	Measure
Discharge Percent of Stream Flow (*4)	01352	N/A	N/A	2%	2%	Once/Day (*3)	Calculate

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS		MONITORING REQUIREMENTS	
	30-Day AVG MINIMUM	7-Day MINIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE
WHOLE EFFLUENT TOXICITY (7-Day Static Renewal) (*6,7)				
<i>Mysidopsis bahia</i>	Report	Report	Once/ Quarter(*1, 4, 6)	24-Hr Composite
<i>Menidia beryllina</i>	Report	Report	Once/Quarter (*1, 4, 6)	24-Hr Composite

Footnotes:

- \*1 When discharging.
- \*2 Stream flow shall be the arithmetic 24-hour flow rate measured in MGD based on the upstream flow station.
- \*3 Stream flow shall be measured every day, even if there is no (zero) discharge from Outfall 001.
- \*4 Discharge Percent of Stream Flow is the effluent discharge flow rate from Outfall 001 divided by the stream flow rate measured during the previous 24 hour period.
- \*6 Monitoring and reporting requirements begin on the effective date of this permit. See Part II.C, Whole Effluent Toxicity Texting Requirements for additional WET monitoring and reporting conditions.
- \*7 Monthly testing is required for ALL months, when the ratio of ANY single day's discharge rate to stream flow rate is greater than 1%. See additional requirements in Part II.F, Monthly Whole Effluent Toxicity Testing Requirements of the permit.

2. Outfall 004: Discharges from outfall 004 is only authorized when Phillips 66 Company, Sweeny Complex is discharging

During the period beginning on the effective date of the permit and lasting through the expiration date, the permittee is authorized to discharge brine production water from Outfall 004 to the Brazos River Tidal in Waterbody Segment Code No. 1201 of the Brazos River Basin. Such discharges shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTICS		DISCHARGE LIMITATIONS		MONITORING REQUIREMENTS	
		Standard Units			
POLLUTANT	STORET CODE	MINIMUM	MAXIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE
pH	00400	6.5	9.0	once/Week (*8)	Grab

EFFLUENT CHARACTERISTICS		DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
		lbs/day, unless noted		mg/l, unless noted			
POLLUTANT	STORET CODE	MONTHLY AVG	DAILY MAX	MONTHLY AVG	DAILY MAX	MEASUREMENT FREQUENCY	SAMPLE TYPE
Flow (*9)	50050	Report, MGD	Report, MGD	N/A	N/A	Once/Day (*8)	Measure
Oil & Grease	00556	N/A	N/A	10	15	Once/Week (*8)	Grab
Total Organic Carbon	00680	N/A	N/A	20	30	Once/Week (*8)	Grab
Discharge Percent of Effluent Flow (*10)	01352	N/A	N/A	50%	50%	Once/Day (*10)	Calculate
Copper	01042	N/A	N/A	N/A	Report	Once/month (*8)	Grab

EFFLUENT CHARACTERISTICS	DISCHARGE MONITORING		MONITORING REQUIREMENTS	
	30-Day AVG MINIMUM	7-Day MINIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE
WHOLE EFFLUENT TOXICITY (7-Day Static Renewal) (*6,8)				
<i>Mysidopsis bahia</i>	Report	Report	Once/ Quarter(*8, 9)	24-Hr Composite
<i>Menidia beryllina</i>	Report	Report	Once/Quarter (*8, 9)	24-Hr Composite

Footnotes:

- \*6 Monitoring and reporting requirements begin on the effective date of this permit. See Part II.C, whole Effluent Toxicity Texting Requirements for additional WET monitoring and reporting conditions.
- \*8 When discharging.
- \*9 Outfall 004 flow rate should be equal to or less than the Phillips 66 Company, Sweeny Complex discharge rate. Flow samples from Outfall 004 and the Sweeny Complex Outfall 011 shall be collected combined on a flow weighted basis for WET testing at a critical dilution of 8% in accordance with Part II.C of this permit. Flow reading from Phillips 66 Company, Sweeny Complex Outfall 011 must be maintained on site. The current TPDES permit No. WQ0000721000, EPA ID No. TX0007536, Phillips 66 Company, Sweeny Complex established a daily average flow limit of 9.0 MGD and a daily maximum flow rate of 12.5 MGD.
- \*10 Flow from Clemens Terminal shall not be more than 50% of the commingled flow. The permittee must also report the percentage of the Clements Terminal effluent in the Outfall 004 commingled discharge. If Phillips 66 Company, Sweeny Complex is not discharging, neither shall the permittee discharge from outfall 004.

SAMPLING LOCATION(S) AND OTHER REQUIREMENTS

Samples taken in compliance with monitoring requirements for Outfall 001, specified above shall be taken at the discharge from the final treatment unit prior to the receiving stream from the following approximate location:

Outfall 001: Latitude 28° 59' 01"; Longitude 95° 34' 03"

Samples taken in compliance with the monitoring requirements for Outfall 004, specified above shall be taken prior to the tie-in point on the pipeline and prior to the discharge co-mingling with ConocoPhillips pipeline from the following approximate location:

Outfall 004: Latitude 28° 56' 30"; Longitude 95° 22' 50"

FLOATING SOLIDS, VISIBLE FOAM AND/OR OILS

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

SECTION B. SCHEDULE OF COMPLIANCE

The permittee shall comply with the following schedule of activities for the attainment of state water quality standards-based final effluent limitations for benzidine at Final Outfalls 001 and 004, where applicable.

- a. Determine exceedance cause(s);
- b. Develop control options, if needed;
- c. Evaluate and select control mechanisms;
- d. Implement corrective action; and
- e. Attain final effluent limitations no later than three (3) years from the permit effective date.

The permittee shall submit quarterly progress reports, to both EPA and Texas Rail Road Commission, in accordance with the following schedule. The requirement to submit quarterly progress reports shall expire three (3) years from the permit effective date. No later than 14-days after the date compliance with the copper final limits have been met, the permittee shall submit a written final report both to EPA and the State, stating that compliance has been completed. If at any time during the three-year compliance period the permittee determines that full compliance will not be met within the time allowed, a separate report shall be sent to both EPA and the State stating the explanation for this delay and proposed remedial actions.

PROGRESS REPORT DUE DATES

January 1  
April 1  
July 1  
October 1

## SECTION C. MONITORING AND REPORTING

1. 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. All DMRs shall be electronically reported effective December 21, 2016, per 40 CFR 127.16. If you are submitting on paper before December 21, 2016, 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.). 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. PA and authorized NPDES programs will begin electronically receiving these DMRs from all DMR filers and start sharing these data with each other.

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

2. Reporting periods shall end on the last day of the month.
3. The permittee is required to submit regular monthly reports as described above and shall submit those reports postmarked no later than the 25<sup>th</sup> day of the month following each reporting period.
4. 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.
5. 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.
6. 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.
7. The permittee shall effectively monitor the operation and efficiency of all treatment and control facilities and the quantity and quality of the treated discharge.

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

## PART II - OTHER REQUIREMENTS

### 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, at (214) 665-6595, and concurrently to Railroad Commission of Texas, at (512) 463-6804, within 24 hours from the time the permittee becomes aware of the violation followed by a written report in five days.

Benzidine

#### 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.

##### Sufficiently Sensitive Analytical Methods (SSM)

The permittee must use sufficiently sensitive EPA-approved analytical methods (SSM) (under 40 CFR part 136 or required under 40 CFR chapter I, subchapters N or O) when quantifying the presence of pollutants in a discharge for analyses of pollutants or pollutant parameters under the permit. In case the approved methods are not sufficiently sensitive to the limits, the most SSM with the lowest method detection limit (MDL) must be used as defined under 40 CFR 122.44(i)(1)(iv)(A). If no analytical laboratory is able to perform a test satisfying the SSM in the region, the most SSM with the lowest MDL must be used after adequate demonstrations by the permittee and EPA approval.

D. REOPENER

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

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

E. WHOLE EFFLUENT TOXICITY LIMITATIONS/TESTING (7-DAY CHRONIC NOEC MARINE)

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

1. SCOPE AND METHODOLOGY

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

APPLICABLE TO FINAL OUTFALL(S):	001	004
REPORTED ON DMR AS FINAL OUTFALL:	001	004
CRITICAL DILUTION (%):	2%	8%
EFFLUENT DILUTION SERIES (%):	0.8%, 1.1%, 1.5%, 2%, 2.7%	3%, 5%, 6%, 8%, 11%
COMPOSITE SAMPLE TYPE:	Defined at PART I	Defined at PART I
TEST SPECIES/METHODS:	40 CFR Part 136 <i>Mysidopsis bahia</i> (TESTING) <i>Menidia beryllina</i> (TESTING)	40 CFR Part 136 <i>Mysidopsis bahia</i> (TESTING) <i>Menidia beryllina</i> (TESTING)

*Mysidopsis bahia* (Mysid shrimp) chronic static renewal 7-day survival and growth test using Method 1007.0, EPA-821-R-02-014, or the most recent update thereof.

*Menidia beryllina* (Inland Silverside minnow) chronic static renewal 7-day larval survival and growth test, Method 1006.0, EPA-821-R-02-014, 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.
- d. At the permit issue date, if a *Mysidopsis bahia* WET test fails (NOEC less than 2%) at Outfall 001, the testing frequency will increase to monthly until three consecutive months pass, at which time the quarterly testing frequency may be resumed.

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 sublethal 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 *Menidia beryllina* (Outfall 001 and Outfall 004) and *Mysidopsis bahia* (Outfall 004) when the species demonstrates significant toxic effects below the critical dilution. These retests shall be conducted monthly until three (3) monthly retests have been performed as a discharge occurs. 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 retests for *Menidia beryllina* (Outfall 001 and Outfall 004) and *Mysidopsis bahia* (Outfall 004), or any two tests for *Mysidopsis bahia* (Outfall 001) in a quarter demonstrates significant lethal effects below the critical dilution, the permittee shall initiate the 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 for *Menidia beryllina* (Outfall 001 and Outfall 004) and *Mysidopsis bahia* (Outfall 004) or the second failed test for *Mysidopsis bahia* in a quarter. 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 *Menidia beryllina* (Outfall 001 and Outfall 004) and *Mysidopsis bahia* (Outfall 004) retests demonstrates significant sub-lethal effects at or below the critical dilution, the permittee shall initiate the Sub-Lethal Toxicity Reduction Evaluation (TRE<sub>SL</sub>) 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.

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 dry weight of surviving Mysid shrimp at the end of the 7 days in the control (0% effluent) must be 0.20 mg per mysid or greater.

Should the mean dry weight in the control be less than 0.20 mg per mysid, the toxicity test, including the control and all effluent dilutions shall be repeated.

- iii. The mean dry weight of surviving unpreserved Inland Silverside minnow larvae at the end of the 7 days in the control (0% effluent) must be 0.50 mg per larva or greater. The mean dry weight of surviving preserved Inland Silverside minnow larvae at the end of the 7 days in the control (0% effluent) must be 0.43 mg per larva or greater.
- iv. The percent coefficient of variation between replicates shall be 40% or less in the control (0% effluent) for: the growth and survival endpoints in the Mysid shrimp test; and the growth and survival endpoints of the Inland Silverside minnow test.
- v. 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 growth and survival endpoints in the Mysid shrimp test; and the growth and survival endpoints of the Inland Silverside minnow test.
- vi. A Percent Minimum Significant Difference (PMSD) range of 11 - 37 for *Mysidopsis bahia* growth;
- vii. A PMSD range of 11 - 28 for *Menidia beryllina* growth.

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

b. Statistical Interpretation

For the Mysid shrimp and the Inland Silverside 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-02-014 or the most recent update thereof.

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 shall be the receiving water collected at a point upstream of the discharge as close as possible to the discharge point, but unaffected by the discharge. The permittee may substitute receiving water for synthetic laboratory dilution water of similar pH, hardness, and salinity to the receiving 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-02-014, 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 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. *Menidia beryllina* (Inland Silverside minnow)

- A. If the No Observed Effect Concentration (NOEC) for survival is less than the critical dilution, enter a "1"; otherwise, enter a "0". Parameter No. TLP6B
- B. Report the NOEC value for survival, Parameter No. TOP6B
- C. Report the Lowest Observed Effect Concentration (LOEC) value for survival, Parameter No. TXP6B
- D. Report the NOEC value for growth, Parameter No. TPP6B
- E. Report the LOEC value for growth, Parameter No. TYP6B
- 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. TGP6B
- G. Report the highest (critical dilution or control) Coefficient of Variation, Parameter No. TQP6B

ii. *Mysidopsis bahia* (Mysid shrimp)

- A. If the NOEC for survival is less than the critical dilution, enter a "1"; otherwise, enter a "0". Parameter No. TLP3EB.
- B. Report the NOEC value for survival, Parameter No. TOP3E
- C. Report the LOEC value for survival, Parameter No. TXP3E
- D. Report the NOEC value for growth, Parameter No. TPP3E

- E. Report the LOEC value for growth, Parameter No. TYP3E
  - 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. TGP3E
  - G. Report the highest (critical dilution or control) Coefficient of Variation, Parameter No. TQP3E
- 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 (TRE<sub>SL</sub>) is triggered

based on three sub-lethal test failures while a lethal effects TRE (TRE<sub>L</sub>) is triggered based on only two test failures for lethality. In addition, EPA Region 6 will consider the magnitude of toxicity and use flexibility when considering a TRE<sub>SL</sub> where there are no effects at effluent dilutions of less than 76% effluent.

- 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 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) 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.

A copy of the TRE Activities Report shall also be submitted to the state agency.

- 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.

A copy of the Final Report on Toxicity Reduction Evaluation Activities shall also be submitted to the state agency.

- 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).

#### F. OTHER WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS

Discharge rate from Outfall 001 cannot be greater than 2% of the flow of the San Bernard River for any day.

## APPENDIX A of PART II

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

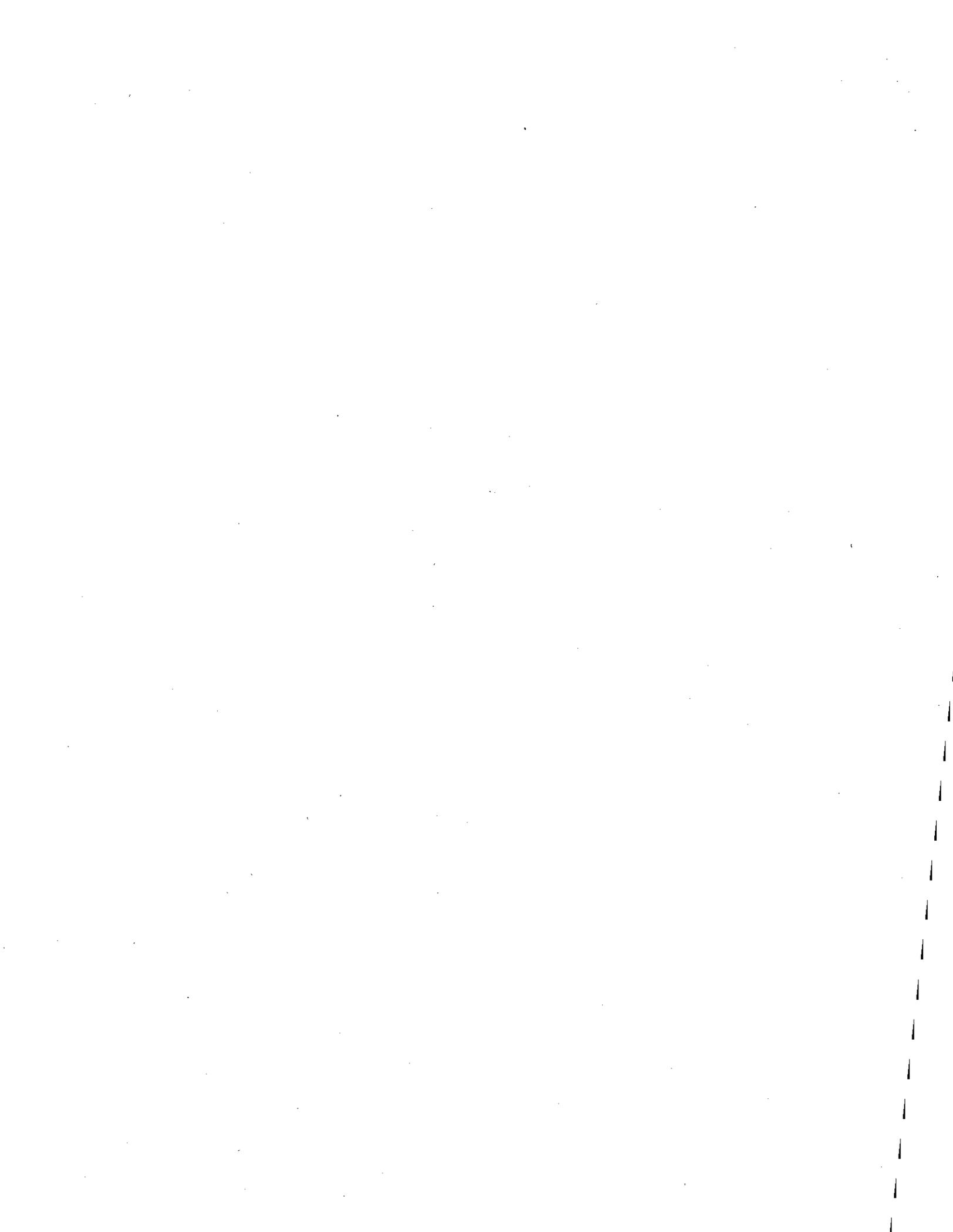
POLLUTANTS	MQL µg/l	POLLUTANTS	MQL µg/l
<b>METALS, RADIOACTIVITY, CYANIDE and CHLORINE</b>			
Aluminum	2.5	Molybdenum	10
Antimony	60	Nickel	0.5
Arsenic	0.5	Selenium	5
Barium	100	Silver	0.5
Beryllium	0.5	Thallium	0.5
Boron	100	Uranium	0.1
Cadmium	1	Vanadium	50
Chromium	10	Zinc	20
Cobalt	50	Cyanide	10
Copper	0.5	Cyanide, weak acid dissociable	10
Lead	0.5	Total Residual Chlorine	33
Mercury *1	0.0005 0.005		
<b>DIOXIN</b>			
2,3,7,8-TCDD	0.00001		
<b>VOLATILE COMPOUNDS</b>			
Acrolein	50	1,3-Dichloropropylene	10
Acrylonitrile	20	Ethylbenzene	10
Benzene	10	Methyl Bromide	50
Bromoform	10	Methylene Chloride	20
Carbon Tetrachloride	2	1,1,2,2-Tetrachloroethane	10
Chlorobenzene	10	Tetrachloroethylene	10
Clorodibromomethane	10	Toluene	10
Chloroform	50	1,2-trans-Dichloroethylene	10
Dichlorobromomethane	10	1,1,2-Trichloroethane	10
1,2-Dichloroethane	10	Trichloroethylene	10
1,1-Dichloroethylene	10	Vinyl Chloride	10
1,2-Dichloropropane	10		
<b>ACID COMPOUNDS</b>			
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
Benzidine	50	2,4-Dinitrotoluene	10
Benzo(a)anthracene	5	1,2-Diphenylhydrazine	20
Benzo(a)pyrene	5	Fluoranthene	10
3,4-Benzofluoranthene	10	Fluorene	10
Benzo(k)fluoranthene	5	Hexachlorobenzene	5
Bis(2-chloroethyl)Ether	10	Hexachlorobutadiene	10
Bis(2-chloroisopropyl)Ether	10	Hexachlorocyclopentadiene	10
Bis(2-ethylhexyl)Phthalate	10	Hexachloroethane	20
Butyl Benzyl Phthalate	10	Indeno(1,2,3-cd)Pyrene	5
2-Chloronaphthalene	10	Isophorone	10
Chrysene	5	Nitrobenzene	10
Dibenzo(a,h)anthracene	5	n-Nitrosodimethylamine	50
1,2-Dichlorobenzene	10	n-Nitrosodi-n-Propylamine	20
1,3-Dichlorobenzene	10	n-Nitrosodiphenylamine	20
1,4-Dichlorobenzene	10	Pyrene	10
3,3'-Dichlorobenzidine	5	1,2,4-Trichlorobenzene	10
Diethyl Phthalate	10		
<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 PERMITS

A. 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 information shall be submitted electronically unless a permanent temporary or episodic waiver is granted. To submit electronically, access the NetDMR website at [www.epa.gov/netdmr](http://www.epa.gov/netdmr) and contact the R6NetDMR@epa.gov in-box for further instructions.

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. In the case of a second or subsequent conviction for a negligent violation, a person shall be subject to criminal penalties of not more than \$50,000 per day of violation, or by imprisonment of not more than 2 years, 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. In the case of a second or subsequent conviction for a knowing violation, a person shall be subject to criminal penalties of not more than \$100,000 per day of violation, or imprisonment of not more than 6 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. In the case of a second or subsequent conviction for a knowing endangerment violation, a person shall be subject to a fine of not more than \$500,000 or by imprisonment of not more than 30 years, or both. An organization, as defined in section 309(c)(3)(B)(iii) of the CWA, shall, upon

conviction of violating the imminent danger provision, be subject to a fine of not more than \$1,000,000 and can be fined up to \$2,000,000 for second or subsequent convictions.

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 \$37,500 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 non-domestic 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.