



TPDES PERMIT NO. WQ0000359000  
[For TCEQ office use only -  
EPA I.D. No. TX0004839]

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY  
P. O. Box 13087  
Austin, Texas 78711-3087

This permit supersedes and replaces  
TPDES Permit No. WQ0000359000,  
issued on August 29, 2001.

PERMIT TO DISCHARGE WASTES  
under provisions of  
Section 402 of the Clean Water Act  
and Chapter 26 of the Texas Water Code

Chevron Phillips Chemical Company LP

whose mailing address is

P.O. Box 7400  
Orange, Texas 77631

TEXAS  
COMMISSION  
ON ENVIRONMENTAL  
QUALITY  
2011 MAR 12 11:02  
CHIEF CLERK'S OFFICE

is authorized to treat and discharge wastes from the Orange Plant, a polyethylene manufacturing facility (SIC 2821)

located on the south side of Farm-to-Market Road 1006, approximately 1.7 miles east of the intersection of Farm-to-Market Road 1006 and State Highway 87, southwest of the City of Orange, Orange County, Texas

to West Bunch Gully; thence to Cow Bayou Tidal in Segment No. 0511 of the Sabine River Basin

only according to effluent limitations, monitoring requirements and other conditions set forth in this permit, as well as the rules of the Texas Commission on Environmental Quality (TCEQ), the laws of the State of Texas, and other orders of the TCEQ. The issuance of this permit does not grant to the permittee the right to use private or public property for conveyance of wastewater along the discharge route described in this permit. This includes, but is not limited to, property belonging to any individual, partnership, corporation or other entity. Neither does this permit authorize any invasion of personal rights nor any violation of federal, state, or local laws or regulations. It is the responsibility of the permittee to acquire property rights as may be necessary to use the discharge route.

This permit shall expire at midnight on March 1, 2011.

ISSUED DATE:

\_\_\_\_\_  
For the Commission

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Outfall Number 001

During the period beginning upon date of issuance and lasting through date of expiration, the permittee is authorized to discharge process wastewater, utility wastewater, storm water, and domestic wastewater subject to the following effluent limitations:

The daily average flow of effluent shall not exceed 3.15 million gallons per day (MGD). The daily maximum flow shall not exceed 8.6 MGD.

| Effluent Characteristics                                    | Discharge Limitations                |                          |                     | Minimum Self-Monitoring Requirements                            |                              |
|---|--------------------------------------|--------------------------|---------------------|---|------------------------------|
|   | Daily Average<br>lbs/day             | Daily Maximum<br>lbs/day | Single Grab<br>mg/L | Report Daily Average and Daily Maximum<br>Measurement Frequency | Daily Maximum<br>Sample Type |
| Flow  | 3.15 MGD                             | 8.6 MGD                  | N/A                 | Continuous  | Parshall Flume               |
| Temperature   | N/A                                  | 105 °F                   | 105 °F              | Continuous (*1)   | Record                       |
| Chemical Oxygen Demand                                      | 2234                                 | 3943                     | 200                 | 1/week  | 24-hr Composite              |
| Biochemical Oxygen Demand<br>(5-day)                        | 460                                  | 1036                     | 120                 | 1/week  | 24-hr Composite              |
| Total Suspended Solids                                      | Report mg/l<br>40 mg/l               | Report mg/l<br>142 mg/l  | 183                 | 2/week  | 24-hr Composite              |
| Oil and Grease  | 263                                  | 526                      | 20                  | 1/week  | Grab                         |
| Ammonia (as Nitrogen) (*2)                                  | N/A                                  | Report mg/l              | N/A                 | 1/month   | 24-hr Composite              |
| Total Copper  | 0.012 mg/l                           | 0.026 mg/l               | 0.038               | 1/quarter   | 24-hr Composite              |
| Total Zinc  | 2.79                                 | 5.91                     | 0.474               | 1/quarter   | 24-hr Composite              |
| Whole Effluent Toxicity (WET) limit                         | 100% (PCS/STORET 22414) <sup>2</sup> |                          |                     |   |                              |
| <i>Mysidopsis bahia</i><br>(chronic NOEC <sup>1,2,3</sup> ) | ≥100% <sup>4</sup>                   | ≥100% <sup>4</sup>       | N/A                 | 1/quarter   | 24-hr Composite              |

<sup>1</sup> Beginning upon permit issuance, the permittee shall report the effluent No Observed Effect Concentration (NOEC).

<sup>2</sup> Compliance with the WET limit of 100% effluent and reporting of PCS/STORET Code 22414 is required upon permit issuance.

<sup>3</sup> The NOEC is defined as the greatest effluent dilution at which no significant effect is demonstrated. Significant lethality is defined as a statistically significant difference, at the 95% confidence level, between a specified effluent dilution and the control.

<sup>4</sup> Report the NOEC value for survival.

(\*1) See Other Requirements, Item 3.

(\*2) Effective beginning upon date of permit issuance and lasting until February 28, 2011.

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

OUTFALL 001 (cont)

| Effluent Characteristics   | Discharge Limitations    |                          |                     | Minimum Self-Monitoring Requirements                            |                 |
|----------------------------|--------------------------|--------------------------|---------------------|---|-----------------|
|                            | Daily Average<br>lbs/day | Daily Maximum<br>lbs/day | Single Grab<br>mg/L | Report Daily Average and Daily Maximum<br>Measurement Frequency | Sample Type     |
| Acenaphthene               | 0.13                     | 0.33                     | 0.019               | 1/year  | 24-hr Composite |
| Acenaphthylene             | 0.13                     | 0.33                     | 0.019               | 1/year  | 24-hr Composite |
| Acrylonitrile              | 0.26                     | 0.55                     | 0.045               | 1/year  | 24-hr Composite |
| Anthracene                 | 0.13                     | 0.33                     | 0.019               | 1/year  | 24-hr Composite |
| Benzene                    | 0.40                     | 0.95                     | 0.054               | 1/year  | 24-hr Composite |
| Benzo(a)anthracene         | 0.019                    | 0.041                    | 0.010               | 1/year  | 24-hr Composite |
| 3,4-Benzofluoranthene      | 0.14                     | 0.34                     | 0.019               | 1/year  | 24-hr Composite |
| Benzo(k)fluoranthene       | 0.13                     | 0.33                     | 0.019               | 1/year  | 24-hr Composite |
| Benzo(a)pyrene             | 0.019                    | 0.041                    | 0.010               | 1/year  | 24-hr Composite |
| Bis(2-ethylhexyl)phthalate | 0.67                     | 1.83                     | 0.104               | 1/year  | 24-hr Composite |
| Carbon Tetrachloride       | 1.01                     | 2.70                     | 0.154               | 1/year  | 24-hr Composite |
| Chlorobenzene              | 1.01                     | 2.70                     | 0.154               | 1/year  | 24-hr Composite |
| Chloroethane               | 0.78                     | 2.09                     | 0.119               | 1/year  | 24-hr Composite |
| Chloroform                 | 1.91                     | 5.59                     | 0.132               | 1/year  | 24-hr Composite |
| Chrysene                   | 0.13                     | 0.33                     | 0.019               | 1/year  | 24-hr Composite |
| Di-n-butyl phthalate       | 0.14                     | 0.31                     | 0.017               | 1/year  | 24-hr Composite |
| 1,2-Dichlorobenzene        | 1.39                     | 5.63                     | 0.321               | 1/year  | 24-hr Composite |
| 1,3-Dichlorobenzene        | 1.01                     | 2.70                     | 0.154               | 1/year  | 24-hr Composite |
| 1,4-Dichlorobenzene        | 1.01                     | 2.70                     | 0.154               | 1/year  | 24-hr Composite |
| 1,1-Dichloroethane         | 0.16                     | 0.42                     | 0.024               | 1/year  | 24-hr Composite |
| 1,2-Dichloroethane         | 1.28                     | 4.07                     | 0.232               | 1/year  | 24-hr Composite |
| 1,1-Dichloroethylene       | 0.14                     | 0.30                     | 0.024               | 1/year  | 24-hr Composite |
| 1,2-trans Dichloroethylene | 0.18                     | 0.47                     | 0.027               | 1/year  | 24-hr Composite |
| 1,2-Dichloropropane        | 1.39                     | 5.63                     | 0.321               | 1/year  | 24-hr Composite |
| 1,3-Dichloropropylene      | 1.39                     | 5.63                     | 0.321               | 1/year  | 24-hr Composite |
| Diethylphthalate           | 0.33                     | 0.80                     | 0.046               | 1/year  | 24-hr Composite |
| 2,4-Dimethylphenol         | 0.13                     | 0.33                     | 0.019               | 1/year  | 24-hr Composite |
| Dimethyl phthalate         | 0.13                     | 0.33                     | 0.019               | 1/year  | 24-hr Composite |
| 2,4-Dinitrophenol          | 8.56                     | 30.44                    | 1.737               | 1/year  | 24-hr Composite |
| 4,6-Dinitro-o-cresol       | 0.55                     | 1.96                     | 0.112               | 1/year  | 24-hr Composite |

FLUENT LIMITATIONS AND MONITORING REQUIREMENTS

OUTFALL 001 (cont)

| Effluent Characteristics | Discharge Limitations    |                          |                     | Minimum Self-Monitoring Requirements                               |                 |
|--------------------------|--------------------------|--------------------------|---------------------|--|-----------------|
|                          | Daily Average<br>lbs/day | Daily Maximum<br>lbs/day | Single Grab<br>mg/L | Report Daily Average and Daily Maximum<br>Measurement<br>Frequency | Sample Type     |
| Ethylbenzene             | 1.01                     | 2.70                     | 0.154               | 1/year   | 24-hr Composite |
| Fluoranthene             | 0.16                     | 0.38                     | 0.019               | 1/year   | 24-hr Composite |
| Fluorene                 | 0.13                     | 0.33                     | 0.019               | 1/year   | 24-hr Composite |
| Hexachlorobenzene        | 0.00017                  | 0.00035                  | 0.010               | 1/year   | 24-hr Composite |
| Hexachlorobutadiene      | 0.086                    | 0.18                     | 0.020               | 1/year   | 24-hr Composite |
| Hexachloroethane         | 1.22                     | 2.57                     | 0.272               | 1/year   | 24-hr Composite |
| Methylene Chloride       | 0.26                     | 1.21                     | 0.069               | 1/year   | 24-hr Composite |
| Methyl Chloride          | 0.78                     | 2.09                     | 0.119               | 1/year   | 24-hr Composite |
| Naphthalene              | 0.13                     | 0.33                     | 0.019               | 1/year   | 24-hr Composite |
| Nitrobenzene             | 5.61                     | 11.9                     | 0.900               | 1/year   | 24-hr Composite |
| 2-Nitrophenol            | 0.46                     | 1.64                     | 0.094               | 1/year   | 24-hr Composite |
| 4-Nitrophenol            | 1.15                     | 4.09                     | 0.233               | 1/year   | 24-hr Composite |
| Phenanthrene             | 0.07                     | 0.14                     | 0.120               | 1/year   | 24-hr Composite |
| Phenol                   | 0.13                     | 0.33                     | 0.019               | 1/year   | 24-hr Composite |
| Pyrene                   | 0.14                     | 0.34                     | 0.019               | 1/year   | 24-hr Composite |
| Tetrachloroethylene      | 0.37                     | 1.16                     | 0.066               | 1/year   | 24-hr Composite |
| 1,2,4-Trichlorobenzene   | 1.39                     | 5.63                     | 0.321               | 1/year   | 24-hr Composite |
| 1,1,1-Trichloroethylene  | 0.16                     | 0.42                     | 0.024               | 1/year   | 24-hr Composite |
| 1,1,2-Trichloroethane    | 0.23                     | 0.90                     | 0.051               | 1/year   | 24-hr Composite |
| Trichloroethylene        | 0.18                     | 0.49                     | 0.028               | 1/year   | 24-hr Composite |
| Toluene                  | 0.20                     | 0.52                     | 0.030               | 1/year   | 24-hr Composite |
| Vinyl Chloride           | 0.69                     | 1.22                     | 0.070               | 1/year   | 24-hr Composite |

2. The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored continuously (\*1).
3. The domestic wastewater effluent shall contain chlorine residual of at least 1.0 mg/l after a detention time of at least 20 minutes (based on peak flow), and shall be monitored 1/month, by grab sample at the exit of the chlorine contact chamber prior to commingling with any other waste streams. The chlorine residual shall be no more than a maximum of 4.0 mg/l and measured 1/month, at the exit of the dechlorination chamber prior to commingling with any other waters. An equivalent method of disinfection may be substituted only with prior approval of the Executive Director.
4. There shall be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.
5. Effluent monitoring samples shall be taken at the following location: At Outfall 001, at the discharge from the cube pond.

(\*1) See Other Requirements, Item 4.

**DEFINITIONS AND STANDARD PERMIT CONDITIONS**

As required by Title 30 Texas Administrative Code (TAC) Chapter 305, certain regulations appear as standard conditions in waste discharge permits. 30 TAC §§ 305.121 - 305.129 (relating to Permit Characteristics and Conditions) as promulgated under the Texas Water Code §§ 5.103 and 5.105, and the Texas Health and Safety Code §§ 361.017 and 361.024(a), establish the characteristics and standards for waste discharge permits, including sewage sludge, and those sections of 40 Code of Federal Regulations (CFR) Part 122 adopted by reference by the Commission. The following text includes these conditions and incorporates them into this permit. All definitions in Section 26.001 of the Texas Water Code and 30 TAC Chapter 305 shall apply to this permit and are incorporated by reference. Some specific definitions of words or phrases used in this permit are as follows:

**1. Flow Measurements**

- a. Annual average flow - the arithmetic average of all daily flow determinations taken within the preceding 12 consecutive calendar months. The annual average flow determination shall consist of daily flow volume determinations made by a totalizing meter, charted on a chart recorder and limited to major domestic wastewater discharge facilities with a 1 million gallons per day or greater permitted flow.
- b. Daily average flow - the arithmetic average of all determinations of the daily flow within a period of one calendar month. The daily average flow determination shall consist of determinations made on at least four separate days. If instantaneous measurements are used to determine the daily flow, the determination shall be the arithmetic average of all instantaneous measurements taken during that month. Daily average flow determination for intermittent discharges shall consist of a minimum of three flow determinations on days of discharge.
- c. Daily maximum flow - the highest total flow for any 24-hour period in a calendar month.
- d. Instantaneous flow - the measured flow during the minimum time required to interpret the flow measuring device.
- e. 2-hour peak flow (domestic wastewater treatment plants) - the maximum flow sustained for a two-hour period during the period of daily discharge. The average of multiple measurements of instantaneous maximum flow within a two-hour period may be used to calculate the 2-hour peak flow.
- f. Maximum 2-hour peak flow (domestic wastewater treatment plants) - the highest 2-hour peak flow for any 24-hour period in a calendar month.

**2. Concentration Measurements**

- a. Daily average concentration - the arithmetic average of all effluent samples, composite or grab as required by this permit, within a period of one calendar month, consisting of at least four separate representative measurements.
  - i. For domestic wastewater treatment plants - When four samples are not available in a calendar month, the arithmetic average (weighted by flow) of all values in the previous four consecutive month period consisting of at least four measurements shall be utilized as the daily average concentration.
  - ii. For all other wastewater treatment plants - When four samples are not available in a calendar month, the arithmetic average (weighted by flow) of all values taken during the month shall be utilized as the daily average concentration.
- b. 7-day average concentration - the arithmetic average of all effluent samples, composite or grab as required by this permit, within a period of one calendar week, Sunday through Saturday.
- c. Daily maximum concentration - the maximum concentration measured on a single day, by the sample type specified in the permit, within a period of one calendar month.
- d. Daily discharge - the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in terms of mass, the "daily discharge" is calculated as the total mass of the pollutant discharged over the sampling day. For pollutants with limitations expressed in other units of measurement, the "daily discharge" is calculated as the average measurement of the pollutant over the sampling day.

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

- e. Fecal coliform bacteria concentration - the number of colonies of fecal coliform bacteria per 100 milliliters effluent. The daily average fecal coliform bacteria concentration is a geometric mean of the values for the effluent samples collected in a calendar month. The geometric mean shall be determined by calculating the  $n$ th root of the product of all measurements made in a calendar month, where  $n$  equals the number of measurements made; or, computed as the antilogarithm of the arithmetic mean of the logarithms of all measurements made in a calendar month. For any measurement of fecal coliform bacteria equaling zero, a substituted value of one shall be made for input into either computation method. The 7-day average for fecal coliform bacteria is the geometric mean of the values for all effluent samples collected during a calendar week.
  - f. Daily average loading (lbs/day) - the arithmetic average of all daily discharge loading calculations during a period of one calendar month. These calculations must be made for each day of the month that a parameter is analyzed. The daily discharge, in terms of mass (lbs/day), is calculated as ( Flow, MGD x Concentration, mg/l x 8.34).
  - g. Daily maximum loading (lbs/day) - the highest daily discharge, in terms of mass (lbs/day), within a period of one calendar month.
3. Sample Type
    - a. Composite sample - For domestic wastewater, a composite sample is a sample made up of a minimum of three effluent portions collected in a continuous 24-hour period or during the period of daily discharge if less than 24 hours, and combined in volumes proportional to flow, and collected at the intervals required by 30 TAC § 319.9 (a). For industrial wastewater, a composite sample is a sample made up of a minimum of three effluent portions collected in a continuous 24-hour period or during the period of daily discharge if less than 24 hours, and combined in volumes proportional to flow, and collected at the intervals required by 30 TAC § 319.9 (b).
    - b. Grab sample - an individual sample collected in less than 15 minutes.
  4. Treatment Facility (facility) - wastewater facilities used in the conveyance, storage, treatment, recycling, reclamation and/or disposal of domestic sewage, industrial wastes, agricultural wastes, recreational wastes, or other wastes including sludge handling or disposal facilities under the jurisdiction of the Commission.
  5. The term "sewage sludge" is defined as solid, semi-solid, or liquid residue generated during the treatment of domestic sewage in 30 TAC Chapter 312. This includes the solids which have not been classified as hazardous waste separated from wastewater by unit processes.
  6. Bypass - the intentional diversion of a waste stream from any portion of a treatment facility.

## MONITORING AND REPORTING REQUIREMENTS

### 1. Self-Reporting

Monitoring results shall be provided at the intervals specified in the permit. Unless otherwise specified in this permit or otherwise ordered by the Commission, the permittee shall conduct effluent sampling and reporting in accordance with 30 TAC §§ 319.4 - 319.12. Unless otherwise specified, a monthly effluent report shall be submitted each month, to the Enforcement Division (MC 224), by the 20th day of the following month for each discharge which is described by this permit whether or not a discharge is made for that month. Monitoring results must be reported on an approved self-report form, that is signed and certified as required by Monitoring and Reporting Requirements No. 10.

As provided by state law, the permittee is subject to administrative, civil and criminal penalties, as applicable, for negligently or knowingly violating the Clean Water Act, the Texas Water Code, Chapters 26, 27, and 28, and Texas Health and Safety Code, Chapter 361, including but not limited to knowingly making any false statement, representation, or certification on any report, record, or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance, or falsifying, tampering with or knowingly rendering inaccurate any monitoring device or method required by this permit or violating any other requirement imposed by state or federal regulations.

### 2. Test Procedures

Unless otherwise specified in this permit, test procedures for the analysis of pollutants shall comply with procedures specified in 30 TAC §§319.11 - 319.12. Measurements, tests and calculations shall be accurately accomplished in a representative manner.

### 3. Records of Results

- a. Monitoring samples and measurements shall be taken at times and in a manner so as to be representative of the monitored activity.

- b. Except for records of monitoring information required by this permit related to the permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by 40 CFR Part 503), monitoring and reporting records, including strip charts and records of calibration and maintenance, copies of all records required by this permit, records of all data used to complete the application for this permit, and the certification required by 40 CFR § 264.73(b)(9) shall be retained at the facility site, or shall be readily available for review by a TCEQ representative for a period of three years from the date of the record or sample, measurement, report, application or certification. This period shall be extended at the request of the Executive Director.
- c. Records of monitoring activities shall include the following:
  - i. date, time and place of sample or measurement;
  - ii. identity of individual who collected the sample or made the measurement.
  - iii. date and time of analysis;
  - iv. identity of the individual and laboratory who performed the analysis;
  - v. the technique or method of analysis; and
  - vi. the results of the analysis or measurement and quality assurance/quality control records.

The period during which records are required to be kept shall be automatically extended to the date of the final disposition of any administrative or judicial enforcement action that may be instituted against the permittee.

#### 4. Additional Monitoring by Permittee

If the permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit using approved analytical methods as specified above, all results of such monitoring shall be included in the calculation and reporting of the values submitted on the approved self-report form. Increased frequency of sampling shall be indicated on the self-report form.

#### 5. Calibration of Instruments

All automatic flow measuring or recording devices and all totalizing meters for measuring flows shall be accurately calibrated by a trained person at plant start-up and as often thereafter as necessary to ensure accuracy, but not less often than annually unless authorized by the Executive Director for a longer period. Such person shall verify in writing that the device is operating properly and giving accurate results. Copies of the verification shall be retained at the facility site and/or shall be readily available for review by a TCEQ representative for a period of three years.

#### 6. Compliance Schedule Reports

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of the permit shall be submitted no later than 14 days following each schedule date to the Regional Office and the Enforcement Division (MC 224).

#### 7. Noncompliance Notification

- a. In accordance with 30 TAC § 305.125(9) any noncompliance which may endanger human health or safety, or the environment shall be reported by the permittee to the TCEQ. Report of such information shall be provided orally or by facsimile transmission (FAX) to the Regional Office within 24 hours of becoming aware of the noncompliance. A written submission of such information shall also be provided by the permittee to the Regional Office and the Enforcement Division (MC 224) within five working days of becoming aware of the noncompliance. The written submission shall contain a description of the noncompliance and its cause; the potential danger to human health or safety, or the environment; the period of noncompliance, including exact dates and times; if the noncompliance has not been corrected, the time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance, and to mitigate its adverse effects.
- b. The following violations shall be reported under Monitoring and Reporting Requirement 7.a.:
  - i. Unauthorized discharges as defined in Permit Condition 2(g).
  - ii. Any unanticipated bypass which exceeds any effluent limitation in the permit.
  - iii. Violation of a permitted maximum daily discharge limitation for pollutants listed specifically in the Other Requirements section of an Industrial TPDES permit.
- c. In addition to the above, any effluent violation which deviates from the permitted effluent limitation by more than 40% shall be reported by the permittee in writing to the Regional Office and the Enforcement Division (MC 224) within 5 working days of becoming aware of the noncompliance.
- d. Any noncompliance other than that specified in this section, or any required information not submitted or submitted incorrectly, shall be reported to the Enforcement Division (MC 224) as promptly as possible. For effluent limitation violations, noncompliances shall be reported on the approved self-report form.

8. In accordance with the procedures described in 30 TAC §§ 35.301 - 35.303 (relating to Water Quality Emergency and Temporary Orders) if the permittee knows in advance of the need for a bypass, it shall submit prior notice by applying for such authorization.

9. Changes in Discharges of Toxic Substances

All existing manufacturing, commercial, mining, and silvicultural permittees shall notify the Regional Office, orally or by facsimile transmission within 24 hours, and both the Regional Office and the Enforcement Division (MC 224) in writing within five (5) working days, after becoming aware of or having reason to believe:

- a. That any activity has occurred or will occur 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":
  - i. One hundred micrograms per liter (100 µg/L);
  - ii. Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/L) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
  - iii. Five (5) times the maximum concentration value reported for that pollutant in the permit application; or
  - iv. The level established by the TCEQ.
- b. That any activity has occurred or will occur 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":
  - i. Five hundred micrograms per liter (500 µg/L);
  - ii. One milligram per liter (1 mg/L) for antimony;
  - iii. Ten (10) times the maximum concentration value reported for that pollutant in the permit application; or
  - iv. The level established by the TCEQ.

10. Signatories to Reports

All reports and other information requested by the Executive Director shall be signed by the person and in the manner required by 30 TAC § 305.128 (relating to Signatories to Reports).

11. All Publicly Owned Treatment Works (POTWs) must provide adequate notice to the Executive Director of the following:
  - a. Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to section 301 or 306 of the CWA if it were directly discharging those pollutants;
  - b. Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit; and
  - c. For the purpose of this paragraph, adequate notice shall include information on:
    - i. The quality and quantity of effluent introduced into the POTW; and
    - ii. Any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

## PERMIT CONDITIONS

1. General

- a. When the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in an application or in any report to the Executive Director, it shall promptly submit such facts or information.
- b. This permit is granted on the basis of the information supplied and representations made by the permittee during action on an application, and relying upon the accuracy and completeness of that information and those representations. After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked, in whole or in part, in accordance with 30 TAC Chapter 305, Subchapter D, during its term for good cause including, but not limited to, the following:
  - i. Violation of any terms or conditions of this permit;
  - ii. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts; or
  - iii. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.

- c. The permittee shall furnish to the Executive Director, upon request and within a reasonable time, any information to determine whether cause exists for amending, revoking, suspending or terminating the permit. The permittee shall also furnish to the Executive Director, upon request, copies of records required to be kept by the permit.

## 2. Compliance

- a. Acceptance of the permit by the person to whom it is issued constitutes acknowledgment and agreement that such person will comply with all the terms and conditions embodied in the permit, and the rules and other orders of the Commission.
- b. The permittee has a duty to comply with all conditions of the permit. Failure to comply with any permit condition constitutes a violation of the permit and the Texas Water Code or the Texas Health and Safety Code, and is grounds for enforcement action, for permit amendment, revocation or suspension, or for denial of a permit renewal application or an application for a permit for another facility.
- c. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit.
- d. The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal or other permit violation which has a reasonable likelihood of adversely affecting human health or the environment.
- e. Authorization from the Commission is required before beginning any change in the permitted facility or activity that may result in noncompliance with any permit requirements.
- f. A permit may be amended, suspended and reissued, or revoked for cause in accordance with 30 TAC §§ 305.62 and 305.66 and Texas Water Code Section 7.302. The filing of a request by the permittee for a permit amendment, suspension and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.
- g. There shall be no unauthorized discharge of wastewater or any other waste. For the purpose of this permit, an unauthorized discharge is considered to be any discharge of wastewater into or adjacent to water in the state at any location not permitted as an outfall or otherwise defined in the Other Requirements section of this permit.
- h. In accordance with 30 TAC § 305.535(a), the permittee may allow any bypass to occur from a TPDES permitted facility which does not cause permitted effluent limitations to be exceeded or an unauthorized discharge to occur, but only if the bypass is also for essential maintenance to assure efficient operation.
- i. The permittee is subject to administrative, civil, and criminal penalties, as applicable, under Texas Water Code §§ 7.051 - 7.075 (relating to Administrative Penalties), 7.101 - 7.111 (relating to Civil Penalties), and 7.141 - 7.202 (relating to Criminal Offenses and Penalties) for violations including, but not limited to, negligently or knowingly violating the federal Clean Water Act, §§ 301, 302, 306, 307, 308, 318, or 405, or any condition or limitation implementing any sections in a permit issued under the CWA § 402, or any requirement imposed in a pretreatment program approved under the CWA §§ 402 (a)(3) or 402 (b)(8).

## 3. Inspections and Entry

- a. Inspection and entry shall be allowed as prescribed in the Texas Water Code Chapters 26, 27, and 28, and Texas Health and Safety Code Chapter 361.
- b. The members of the Commission and employees and agents of the Commission are entitled to enter any public or private property at any reasonable time for the purpose of inspecting and investigating conditions relating to the quality of water in the state or the compliance with any rule, regulation, permit or other order of the Commission. Members, employees, or agents of the Commission and Commission contractors are entitled to enter public or private property at any reasonable time to investigate or monitor or, if the responsible party is not responsive or there is an immediate danger to public health or the environment, to remove or remediate a condition related to the quality of water in the state. Members, employees, Commission contractors, or agents acting under this authority who enter private property shall observe the establishment's rules and regulations concerning safety, internal security, and fire protection, and if the property has management in residence, shall notify management or the person then in charge of his presence and shall exhibit proper credentials. If any member, employee, Commission contractor, or agent is refused the right to enter in or on public or private property under this authority, the Executive Director may invoke the remedies authorized in Texas Water Code Section 7.002. The statement above, that Commission entry shall occur in accordance with an establishment's rules and regulations concerning safety, internal security, and fire protection, is not grounds for denial or restriction of entry to any part of the facility, but merely describes the Commission's duty to observe appropriate rules and regulations during an inspection.

## 4. Permit Amendment and/or Renewal

- a. The permittee shall give notice to the Executive Director as soon as possible of any planned physical alterations or additions to the permitted facility if such alterations or additions would require a permit amendment or result in a violation of permit requirements. Notice shall also be required under this paragraph when:
  - i. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in accordance with 30 TAC § 305.534 (relating to New Sources and New Dischargers); or
  - ii. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements in Monitoring and Reporting Requirements No. 9;
  - iii. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.
- b. Prior to any facility modifications, additions, or expansions that will increase the plant capacity beyond the permitted flow, the permittee must apply for and obtain proper authorization from the Commission before commencing construction.
- c. The permittee must apply for an amendment or renewal at least 180 days prior to expiration of the existing permit in order to continue a permitted activity after the expiration date of the permit. If an application is submitted prior to the expiration date of the permit, the existing permit shall remain in effect until the application is approved, denied, or returned. If the application is returned or denied, authorization to continue such activity shall terminate upon the effective date of the action. If an application is not submitted prior to the expiration date of the permit, the permit shall expire and authorization to continue such activity shall terminate.
- d. Prior to accepting or generating wastes which are not described in the permit application or which would result in a significant change in the quantity or quality of the existing discharge, the permittee must report the proposed changes to the Commission. The permittee must apply for a permit amendment reflecting any necessary changes in permit conditions, including effluent limitations for pollutants not identified and limited by this permit.
- e. In accordance with the Texas Water Code § 26.029(b), after a public hearing, notice of which shall be given to the permittee, the Commission may require the permittee, from time to time, for good cause, in accordance with applicable laws, to conform to new or additional conditions.
- f. If any toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is promulgated under Section 307(a) of the Clean Water 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. The permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water 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.

## 5. Permit Transfer

- a. Prior to any transfer of this permit, Commission approval must be obtained. The Commission shall be notified in writing of any change in control or ownership of facilities authorized by this permit. Such notification should be sent to the Applications Review and Processing Team (MC 148) of the Water Quality Division.
- b. A permit may be transferred only according to the provisions of 30 TAC § 305.64 (relating to Transfer of Permits) and 30 TAC § 50.133 (relating to Executive Director Action on Application or WQMP update).

## 6. Relationship to Hazardous Waste Activities

This permit does not authorize any activity of hazardous waste storage, processing, or disposal which requires a permit or other authorization pursuant to the Texas Health and Safety Code.

## 7. Relationship to Water Rights

Disposal of treated effluent by any means other than discharge directly to water in the state must be specifically authorized in this permit and may require a permit pursuant to Chapter 11 of the Texas Water Code.

## 8. Property Rights

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

## 9. Permit Enforceability

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

## 10. Relationship to Permit Application

The application pursuant to which the permit has been issued is incorporated herein; provided, however, that in the event of a conflict between the provisions of this permit and the application, the provisions of the permit shall control.

## 11. Notice of Bankruptcy.

a. Each permittee shall notify the executive director, in writing, immediately following the filing of a voluntary or involuntary petition for bankruptcy under any chapter of Title 11 (Bankruptcy) of the United States Code (11 USC) by or against:

- i. the permittee;
- ii. an entity (as that term is defined in 11 USC, §101(15)) controlling the permittee or listing the permit or permittee as property of the estate; or
- iii. an affiliate (as that term is defined in 11 USC, §101(2)) of the permittee.

b. This notification must indicate:

- i. the name of the permittee;
- ii. the permit number(s);
- iii. the bankruptcy court in which the petition for bankruptcy was filed; and
- iv. the date of filing of the petition.

**OPERATIONAL REQUIREMENTS**

1. The permittee shall at all times ensure that the facility and all of its systems of collection, treatment, and disposal are properly operated and maintained. This includes, but is not limited to, the regular, periodic examination of wastewater solids within the treatment plant by the operator in order to maintain an appropriate quantity and quality of solids inventory as described in the various operator training manuals and according to accepted industry standards for process control. Process control, maintenance, and operations records shall be retained at the facility site, or shall be readily available for review by a TCEQ representative, for a period of three years.
2. Upon request by the Executive Director, the permittee shall take appropriate samples and provide proper analysis in order to demonstrate compliance with Commission rules. Unless otherwise specified in this permit or otherwise ordered by the Commission, the permittee shall comply with all applicable provisions of 30 TAC Chapter 312 concerning sewage sludge use and disposal and 30 TAC §§ 319.21 - 319.29 concerning the discharge of certain hazardous metals.
3. Domestic wastewater treatment facilities shall comply with the following provisions:
  - a. The permittee shall notify the Municipal Permits Team, Wastewater Permitting Section (MC 148) of the Water Quality Division, in writing, of any facility expansion at least 90 days prior to conducting such activity.
  - b. The permittee shall submit a closure plan for review and approval to the the Land Application Team, Wastewater Permitting Section (MC 148) of the Water Quality Division, for any closure activity at least 90 days prior to conducting such activity. Closure is the act of permanently taking a waste management unit or treatment facility out of service and includes the permanent removal from service of any pit, tank, pond, lagoon, surface impoundment and/or other treatment unit regulated by this permit.
4. The permittee is responsible for installing prior to plant start-up, and subsequently maintaining, adequate safeguards to prevent the discharge of untreated or inadequately treated wastes during electrical power failures by means of alternate power sources, standby generators, and/or retention of inadequately treated wastewater.
5. Unless otherwise specified, the permittee shall provide a readily accessible sampling point and, where applicable, an effluent flow measuring device or other acceptable means by which effluent flow may be determined.
6. The permittee shall remit an annual water quality fee to the Commission as required by 30 TAC Chapter 21. Failure to pay the fee may result in revocation of this permit under Texas Water Code § 7.302(b)(6).

## 7. Documentation

For all written notifications to the Commission required of the permittee by this permit, the permittee shall keep and make available a copy of each such notification under the same conditions as self-monitoring data are required to be kept and made available. Except for information required for TPDES permit applications, effluent data, including effluent data in permits, draft permits and permit applications, and other information specified as not confidential in 30 TAC § 1.5(d), any information submitted pursuant to this permit may be claimed as confidential by the submitter. Any such claim must be asserted in the manner prescribed in the application form or by stamping the words "confidential business information" on each page containing such information. If no claim is made at the time of submission, information may be made available to the public without further notice. If the Commission or Executive Director agrees with the designation of confidentiality, the TCEQ will not provide the information for public inspection unless required by the Texas Attorney General or a court pursuant to an open records request. If the Executive Director does not agree with the designation of confidentiality, the person submitting the information will be notified.

## 8. Facilities which generate domestic wastewater shall comply with the following provisions; domestic wastewater treatment facilities at permitted industrial sites are excluded.

- a. Whenever flow measurements for any domestic sewage treatment facility reach 75 percent of the permitted daily average or annual average flow for three consecutive months, the permittee must initiate engineering and financial planning for expansion and/or upgrading of the domestic wastewater treatment and/or collection facilities. Whenever the flow reaches 90 percent of the permitted daily average or annual average flow for three consecutive months, the permittee shall obtain necessary authorization from the Commission to commence construction of the necessary additional treatment and/or collection facilities. In the case of a domestic wastewater treatment facility which reaches 75 percent of the permitted daily average or annual average flow for three consecutive months, and the planned population to be served or the quantity of waste produced is not expected to exceed the design limitations of the treatment facility, the permittee shall submit an engineering report supporting this claim to the Executive Director of the Commission.

If in the judgement of the Executive Director the population to be served will not cause permit noncompliance, then the requirement of this section may be waived. To be effective, any waiver must be in writing and signed by the Director of the Enforcement Division (MC 149) of the Commission, and such waiver of these requirements will be reviewed upon expiration of the existing permit; however, any such waiver shall not be interpreted as condoning or excusing any violation of any permit parameter.

- b. The plans and specifications for domestic sewage collection and treatment works associated with any domestic permit must be approved by the Commission, and failure to secure approval before commencing construction of such works or making a discharge is a violation of this permit and each day is an additional violation until approval has been secured.
  - c. Permits for domestic wastewater treatment plants are granted subject to the policy of the Commission to encourage the development of area-wide waste collection, treatment and disposal systems. The Commission reserves the right to amend any domestic wastewater permit in accordance with applicable procedural requirements to require the system covered by this permit to be integrated into an area-wide system, should such be developed; to require the delivery of the wastes authorized to be collected in, treated by or discharged from said system, to such area-wide system; or to amend this permit in any other particular to effectuate the Commission's policy. Such amendments may be made when the changes required are advisable for water quality control purposes and are feasible on the basis of waste treatment technology, engineering, financial, and related considerations existing at the time the changes are required, exclusive of the loss of investment in or revenues from any then existing or proposed waste collection, treatment or disposal system.
9. Domestic wastewater treatment plants shall be operated and maintained by sewage plant operators holding a valid certificate of competency at the required level as defined in 30 TAC Chapter 30.
  10. For Publicly Owned Treatment Works (POTWs), the 30-day average (or monthly average) percent removal for BOD and TSS shall not be less than 85 percent, unless otherwise authorized by this permit.
  11. Facilities which generate industrial solid waste as defined in 30 TAC § 335.1 shall comply with these provisions:
    - a. Any solid waste, as defined in 30 TAC § 335.1 (including but not limited to such wastes as garbage, refuse, sludge from a waste treatment, water supply treatment plant or air pollution control facility, discarded materials, discarded materials to be recycled, whether the waste is solid, liquid, or semisolid), generated by the permittee during the management and treatment of wastewater, must be managed in accordance with all applicable provisions of 30 TAC Chapter 335, relating to Industrial Solid Waste Management.

- b. Industrial wastewater that is being collected, accumulated, stored, or processed before discharge through any final discharge outfall, specified by this permit, is considered to be industrial solid waste until the wastewater passes through the actual point source discharge and must be managed in accordance with all applicable provisions of 30 TAC Chapter 335.
- c. The permittee shall provide written notification, pursuant to the requirements of 30 TAC § 335.8(b)(1), to the Corrective Action Section (MC 127) of the Remediation Division informing the Commission of any closure activity involving an Industrial Solid Waste Management Unit, at least 90 days prior to conducting such an activity.
- d. Construction of any industrial solid waste management unit requires the prior written notification of the proposed activity to the Registration and Reporting Section (MC 129) of the Registration, Review, and Reporting Division. No person shall dispose of industrial solid waste, including sludge or other solids from wastewater treatment processes, prior to fulfilling the deed recordation requirements of 30 TAC § 335.5.
- e. The term "industrial solid waste management unit" means a landfill, surface impoundment, waste-pile, industrial furnace, incinerator, cement kiln, injection well, container, drum, salt dome waste containment cavern, or any other structure vessel, appurtenance, or other improvement on land used to manage industrial solid waste.
- f. The permittee shall keep management records for all sludge (or other waste) removed from any wastewater treatment process. These records shall fulfill all applicable requirements of 30 TAC Chapter 335 and must include the following, as it pertains to wastewater treatment and discharge:
  - i. Volume of waste and date(s) generated from treatment process;
  - ii. Volume of waste disposed of on-site or shipped off-site;
  - iii. Date(s) of disposal;
  - iv. Identity of hauler or transporter;
  - v. Location of disposal site; and
  - vi. Method of final disposal.

The above records shall be maintained on a monthly basis. The records shall be retained at the facility site, or shall be readily available for review by authorized representatives of the TCEQ for at least five years.

12. For industrial facilities to which the requirements of 30 TAC Chapter 335 do not apply, sludge and solid wastes, including tank cleaning and contaminated solids for disposal, shall be disposed of in accordance with Chapter 361 of the Texas Health and Safety Code.

OTHER REQUIREMENTS

1. The Executive Director has reviewed this action for consistency with the goals and policies of the Texas Coastal Management Program (CMP) in accordance with the regulations of the Coastal Coordination Council (CCC) and has determined that the action is consistent with the applicable CMP goals and policies.
2. Violations of daily maximum limitations for the following pollutants shall be reported orally or by facsimile to TCEQ Region 10, within 24 hours from the time the permittee becomes aware of the violation followed by a written report within five working days to TCEQ Region 10 Office and the Enforcement Division (MC 224):

| <u>Pollutant</u>           | <u>MAL (mg/l)</u> | <u>Pollutant</u>       | <u>MAL (mg/l)</u> |
|----------------------------|-------------------|------------------------|-------------------|
| Total Copper               | 0.01              | Diethyl Phthalate      | 0.01              |
| Total Zinc                 | 0.005             | 2,4-Dimethylphenol     | 0.01              |
| Acenaphthene               | 0.01              | Dimethyl phthalate     | 0.01              |
| Acenaphthylene             | 0.01              | 2,4-Dinitrophenol      | 0.05              |
| Acrylonitrile              | 0.05              | 4,6-Dinitro-o-cresol   | 0.05              |
| Anthracene                 | 0.01              | Ethylbenzene           | 0.01              |
| Benzene                    | 0.01              | Fluoranthene           | 0.01              |
| Benzo(a)anthracene         | 0.01              | Fluorene               | 0.01              |
| 3,4-Benzofluoranthene      | 0.01              | Hexachlorobezene       | 0.01              |
| Benzo(k)fluoranthene       | 0.01              | Hexachlorobutadiene    | 0.01              |
| Benzo(a)pyrene             | 0.01              | Hexachloroethane       | 0.02              |
| Bis(2-ethylhexyl)phthalate | 0.01              | Methylene Chloride     | 0.02              |
| Carbon Tetrachloride       | 0.01              | Methyl Chloride        | 0.02              |
| Chlorobenzene              | 0.01              | Naphthalene            | 0.01              |
| Chloroethane               | 0.01              | Nitrobenzene           | 0.01              |
| Chloroform                 | 0.01              | 2-Nitrophenol          | 0.02              |
| Chrysene                   | 0.01              | 4-Nitrophenol          | 0.05              |
| Di-n-butyl phthalate       | 0.01              | Phenanthrene           | 0.01              |
| 1,2-Dichlorobenzene        | 0.01              | Phenol                 | -----             |
| 1,3-Dichlorobenzene        | 0.01              | Pyrene                 | 0.01              |
| 1,4-Dichlorobenzene        | 0.01              | Tetrachloroethylene    | 0.01              |
| 1,1-Dichloroethane         | 0.01              | 1,2,4-Trichlorobenzene | 0.01              |
| 1,2-Dichloroethane         | 0.01              | 1,1,1-Trichloroethane  | 0.01              |
| 1,1-Dichloroethylene       | 0.01              | 1,1,2-Trichloroethane  | 0.01              |
| 1,2-trans Dichloroethylene | 0.01              | Trichloroethylene      | 0.01              |
| 1,2-Dichloropropane        | 0.01              | Toluene                | 0.01              |
| 1,3-Dichloropropylene      | 0.01              | Vinyl Chloride         | 0.01              |

Test methods utilized shall be sensitive enough to demonstrate compliance with the permit effluent limitations. Permit compliance/noncompliance determinations will be based on the effluent limitations contained in this permit with consideration given to the MAL for the parameters specified above.

When an analysis of an effluent sample for any of the parameters listed above indicates no detectable levels above the MAL and the test method detection level is as sensitive as the specified MAL, a value of zero (0) shall be used for that measurement when determining calculations and reporting requirements for the self-reporting form. This applies to determinations of daily maximum concentration, calculations of loading and daily averages, and other reportable results.

When a reported value is zero (0) based on this MAL provision, the permittee shall submit the following statement with the self-reporting form either as a separate attachment to the form or as a statement in the comments section of the form.

"The reported value(s) of zero (0) for \_\_\_\_\_ [list parameter(s)] \_\_\_\_\_ on the self-reporting form for \_\_\_\_\_ [monitoring period date range] \_\_\_\_\_ is based on the following conditions: 1) the analytical method used had a method detection level as sensitive as the MAL specified in the permit, and 2) the analytical results contained no detectable levels above the specified MAL."

When an analysis of an effluent sample for a parameter indicates no detectable levels and the test method detection level is not as sensitive as the MAL specified in the permit, or an MAL is not specified in the permit for that parameter, the level of detection achieved shall be used for that measurement when determining calculations and reporting requirements for the self-reporting form. A zero (0) may not be used.

3. For continuous temperature measurements taken in accordance with Page 2 of this permit, the reporting requirements in MONITORING AND REPORTING REQUIREMENT, Item 7 may be omitted if the continuously recorded temperature does not exceed the Daily Maximum temperature for more than 30 minutes for any single exceedance and not more than a total of 7 hours and 26 minutes in any 31 day period.
4. The permittee shall maintain the pH within the range specified on Page 2c of this permit. Excursions from the range are permitted. An excursion is an unintentioned and temporary incident in which the pH value of the wastewater exceeds the range set forth on Page 2c. A pH excursion is not a violation and a non-compliance report is not required for pH excursions provided:
  - (a) The excursion does not exceed the range of 5-11 standard pH units,
  - (b) The individual excursion does not exceed 60 minutes,
  - (c) The sum of all excursions does not exceed 7 hours and 26 minutes in any 31 day period.
5. Subsequent to this permit issuance date, all new process wastewater ponds shall be lined in compliance with one of the following requirements:
  - (a) Soil Liner: The soil liner shall contain at least 3 feet of clay-rich (liquid limit greater than or equal to 30 and plasticity index greater than or equal to 15) soil material along the sides and bottom of the pond compacted in lifts of no more than 9 inches, to 95% standard proctor density at the optimum moisture content to achieve a permeability equal to or less than  $1 \times 10^{-7}$  cm/sec.
  - (b) Plastic/Rubber Liner: The liner shall be either a plastic or rubber membrane liner at least 30 mils in thickness which completely covers the sides and the bottom of the pond and which is not subject to degradation due to reaction with wastewater with which it will come into contact. If this lining material is vulnerable to ozone or ultraviolet deterioration it should be covered with a protective layer of soil of at least 6 inches. A leak detection system is also required.
  - (c) Alternate Liner: The permittee shall submit plans for any other pond lining method. Pond liner plans must be approved in writing by the Executive Director of the Texas Natural Resource Conservation Commission prior to pond construction.

The permittee shall notify the TCEQ Region 10 Office upon completion of construction of the pond and at least a week prior to its use. Certification of the lining specifications shall be provided by a Texas licensed professional engineer and shall be available for inspection by TCEQ personnel upon request. For new construction, the certification and the test results of soils forming the bottom and sides of the pond shall be submitted to the TCEQ, Wastewater Permitting Section (MC-148) and Region 10 Office for review prior to discharging any wastewaters into the ponds. Permeability tests shall be made with material typical of the expected use.

6. The permittee shall maintain and update as needed a plant map showing the location and the pond number of the existing wastewater treatment/retention ponds. The ponds listed in the following table are authorized for wastewater treatment/containment for Outfall 001. The permittee shall notify in writing the TCEQ Region 10 Office and the Wastewater Permitting Section (MC148) at least 90 days prior to discontinuing the use of any surface impoundment, pit, or basin authorized by this permit. The permittee shall, at the request of the Executive Director, submit such information as necessary to evaluate closure of the impoundments including, but not limited to, chemical analyses of bottom sediments, soils and groundwater samples.

| <u>Pond Name</u> | <u>Capacity (acre-feet)</u> | <u>Liner</u>   | <u>Leak Detection System</u> |
|------------------|-----------------------------|----------------|------------------------------|
| Cube             | 0.70                        | Clay           | No                           |
| H.D. Cube        | 0.72                        | Concrete/Steel | No                           |
| Firewater Pond   | 18                          | In-Situ        | No                           |

7. The mixing zone is defined as a volume within a radius of 12.5 feet from the point of discharge. Chronic toxic criteria apply at the edge of the mixing zone.

CHRONIC BIOMONITORING REQUIREMENTS: MARINE

The provisions of this Section apply to Outfall 001 for whole effluent toxicity testing (biomonitoring).

1. Scope, Frequency and Methodology

- a. The permittee shall test the effluent for toxicity in accordance with the provisions below. Such testing will determine if an appropriately dilute effluent sample adversely affects the survival, reproduction, or growth of the test organisms.
- b. The permittee shall conduct all toxicity tests utilizing the test organisms, procedures, and quality assurance requirements specified below and in accordance with "Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms, Third Edition" (EPA-821-R-02-014), or the most recent update thereof:
  - 1) Chronic static renewal 7-day survival and growth test using the mysid shrimp (*Mysidopsis bahia*) (Method 1007.0 or the most recent update thereof). A minimum of eight replicates with five organisms per replicate shall be used in the control and in each dilution. This test shall be conducted once per quarter.
  - 2) Chronic static renewal 7-day larval survival and growth test using the inland silverside (*Menidia beryllina*) (Method 1006.0 or the most recent update thereof). A minimum of five replicates with eight organisms per replicate shall be used in the control and in each dilution. This test shall be conducted once per quarter.

The permittee must perform and report a valid test for each test species during the prescribed reporting period. An invalid test must be repeated during the same reporting period. An invalid test is herein defined as any test failing to satisfy the test acceptability criteria, procedures, and quality assurance requirements specified in the test methods and permit. All test results, valid or invalid, must be submitted as described below.

- c. The permittee shall use five effluent dilution concentrations and a control in each toxicity test. These additional effluent concentrations are 32%, 42%, 56%, 75%, and 100% effluent. The critical dilution, defined as 100% effluent, is the effluent concentration representative of the proportion of effluent in the receiving water during critical low flow or critical mixing conditions.
- d. This permit may be amended to require a Whole Effluent Toxicity (WET) limit, Chemical-Specific (CS) limits, a Best Management Practice (BMP), additional toxicity testing, and/or other appropriate actions to address toxicity. The permittee may be required to conduct additional biomonitoring tests and/or a Toxicity Reduction Evaluation (TRE) if biomonitoring data indicate multiple numbers of unconfirmed toxicity events.
- e. Testing Frequency Reduction for the inland silverside
  - 1) If none of the first four consecutive quarterly tests demonstrates significant lethal or sub-lethal effects, the permittee may submit this information in writing and, upon approval from the Water Quality Standards Team, reduce the testing frequency to once per year for the vertebrate test species.
  - 2) If one or more of the first four consecutive quarterly tests demonstrates significant sub-lethal effects, the permittee shall continue quarterly testing until four consecutive quarterly tests demonstrate no significant sub-lethal effects. At that time, the permittee may apply for the appropriate testing frequency reduction.
  - 3) If one or more of the first four consecutive quarterly tests demonstrates significant lethal effects, the permittee shall continue quarterly testing until the permit is reissued. If a testing frequency reduction had been previously granted and a subsequent test demonstrates significant lethal effects, the permittee will resume a quarterly testing frequency until the permit is reissued.

- f. The permittee shall comply with the No Observed Effect Concentration (NOEC) effluent limitation for *Mysidopsis bahia* survival of not less than 100 % upon permit issuance (see the EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS section). The NOEC is defined as the greatest effluent dilution at which no significant effect is demonstrated. Significant lethality is defined as a statistically significant difference, at the 95% confidence level, between the survival of the test organism in a specified effluent dilution when compared to the survival of the test organism in the control.
- g. The conditions of this item are effective beginning with the effective date of the WET limit. If the permittee fails to pass the survival endpoint at the critical dilution, the permittee shall be considered in violation of this permit limit and the testing frequency for the species in violation of the NOEC effluent limitation will increase to monthly until such time compliance is demonstrated for a period of three consecutive months, at which time the permittee may return to the testing frequency stated in Part 1.b. of this Section.

The permittee will be referred to the Enforcement Division upon failure of any test during the period of increased testing. The permittee shall submit the results of the initial failed test and each subsequent monthly test as required in Part 3 (Reporting) of this Section. WET limit test results shall be included on the Discharge Monitoring Reports sent to the Database and Administration Team (MC-224).

## 2. Required Toxicity Testing Conditions

- a. Test Acceptance - The permittee shall repeat any toxicity test, including the control and all effluent dilutions, which fails to meet any of the following criteria:
- 1) a control mean survival of 80% or greater;
  - 2) a control mean dry weight of surviving mysid shrimp of 0.20 mg or greater;
  - 3) a control mean dry weight for surviving unpreserved inland silverside of 0.50 mg or greater and 0.43 mg or greater for surviving preserved inland silverside.
  - 4) a control Coefficient of Variation percent (CV%) between replicates of 40 or less in the in the growth and survival tests.
  - 5) a critical dilution CV% of 40 or less in the growth and survival endpoints for either growth and survival test. However, if statistically significant lethal or nonlethal effects are exhibited at the critical dilution, a CV% greater than 40 shall not invalidate the test.
  - 6) a Percent Minimum Significant Difference of 37 or less for mysid shrimp growth;
  - 7) a Percent Minimum Significant Difference of 28 or less for inland silverside growth.
- b. Statistical Interpretation
- 1) For the mysid shrimp and the inland silverside larval survival and growth tests, the statistical analyses used to determine if there is a significant difference between the control and an effluent dilution shall be in accordance with the methods described in the "Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms, Third Edition" (EPA-821-R-02-014), or the most recent update thereof.
  - 2) The permittee is responsible for reviewing test concentration-response relationships to ensure that calculated test-results are interpreted and reported correctly. The EPA manual, "Method Guidance and Recommendation for Whole Effluent Toxicity (WET) Testing (40 CFR Part 136)" (EPA 821-B-00-004) provides guidance on determining the validity of test results.

- 3) If significant lethality is demonstrated (that is, there is a statistically significant difference in survival at the critical dilution when compared to the control), the conditions of test acceptability are met, and the survival of the test organisms are equal to or greater than 80% in the critical dilution and all dilutions below that, then the permittee shall report a survival No Observed Effect Concentration (NOEC) of not less than the critical dilution for the reporting requirements.
- 4) The NOEC is defined as the greatest effluent dilution at which no significant effect is demonstrated. The Lowest Observed Effect Concentration (LOEC) is defined as the lowest effluent dilution at which a significant effect is demonstrated. A significant effect is herein defined as a statistically significant difference at the 95% confidence level between the survival, reproduction, or growth of the test organism(s) in a specified effluent dilution compared to the survival, reproduction, or growth of the test organism(s) in the control (0% effluent).
- 5) The use of NOECs and LOECs assumes either a monotonic (continuous) concentration-response relationship or a threshold model of the concentration-response relationship. For any test result that demonstrates a non-monotonic (non-continuous) response, the NOEC should be determined based on the guidance manual referenced in Item 2 above and a full report will be submitted to the Water Quality Standards Team
- 6) Pursuant to the responsibility assigned to the permittee in Part 2.b.2), test results that demonstrate a non-monotonic (non-continuous) concentration-response relationship may be submitted, prior to the due date, for technical review. The above-referenced guidance manual will be used when making a determination of test acceptability
- 7) The Water Quality Standards Team will review test results (i.e., Table 1 and Table 2 forms) for consistency with established TCEQ rules, procedures, and permit requirements.

c. Dilution Water

- 1) 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. Where the toxicity tests are conducted on effluent discharges to receiving waters that are classified as intermittent streams, or where the toxicity tests are conducted on effluent discharges where no receiving water is available due to zero flow conditions, the permittee shall; (a) substitute a synthetic dilution water that has a pH, hardness, and alkalinity similar to that of the closest downstream perennial water unaffected by the discharge, or (b) utilize the closest downstream perennial water unaffected by the discharge.
- 2) Where the receiving water proves unsatisfactory as a result of pre-existing instream toxicity (i.e. fails to fulfill the test acceptance criteria of item 2.a.), the permittee may substitute synthetic dilution water for the receiving water in all subsequent tests provided the unacceptable receiving water test met the following stipulations:
  - a) a synthetic lab water control was performed (in addition to the receiving water control) which fulfilled the test acceptance requirements of item 2.a;
  - b) the test indicating receiving water toxicity was carried out to completion (i.e., 7 days);
  - c) the permittee submitted all test results indicating receiving water toxicity with the reports and information required in Part 3.

Upon approval, the permittee may substitute other appropriate dilution water with chemical and physical characteristics similar to that of the receiving water.

## d. Samples and Composites

- 1) The permittee shall collect a minimum of three flow-weighted 24-hour composite samples from Outfall 001. The second and third 24-hour composite samples will be used for the renewal of the dilution concentrations for each toxicity test. A 24-hour composite sample consists of a minimum of 12 effluent portions collected at equal time intervals representative of a 24-hour operating day and combined proportionally to flow, or a sample continuously collected proportionally to flow over a 24-hour operating day.
- 2) The permittee shall collect the 24-hour composite samples such that the samples are representative of any periodic episode of chlorination, biocide usage, or other potentially toxic substance discharged on an intermittent basis.
- 3) The permittee shall initiate the toxicity tests within 36 hours after collection of the last portion of the first 24-hour composite sample. The holding time for any subsequent 24-hour composite sample shall not exceed 72 hours. Samples shall be maintained at a temperature of 0-6 degrees Centigrade during collection, shipping, and storage.
- 4) If flow from the outfall 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 have collected an effluent composite sample volume sufficient to complete the required toxicity tests with daily renewal of the effluent. When possible, the effluent samples used for the toxicity tests shall be collected on separate days if the discharge occurs over multiple days. The 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 Part 3 of this Section.

3. Reporting

All reports, tables, plans, summaries, and related correspondence required in any Part of this Section shall be submitted to the attention of the Water Quality Standards Team (MC 150) of the Water Quality Division. All DMRs, including DMRs with biomonitoring data, should be sent to the Enforcement Division (MC 224).

- a. The permittee shall prepare a full report of the results of all tests conducted pursuant to this permit in accordance with the Report Preparation Section of "Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms, Third Edition" (EPA-821-R-02-014), or the most recent update thereof, for every valid and invalid toxicity test initiated whether carried to completion or not. All full reports shall be retained for 3 years at the plant site and shall be available for inspection by TCEQ personnel.
- b. A full report must be submitted with the first valid biomonitoring test results for each test species and with the first test results any time the permittee subsequently employs a different test laboratory. Full reports need not be submitted for subsequent testing unless specifically requested. The permittee shall routinely report the results of each biomonitoring test on the Table 1 forms provided with this permit. All Table 1 reports must include the information specified in the Table 1 form attached to this permit.
  - 1) Annual biomonitoring test results are due on or before January 20th for biomonitoring conducted during the previous 12 month period.
  - 2) Semiannual biomonitoring test results are due on or before July 20th and January 20th for biomonitoring conducted during the previous 6 month period.
  - 3) Quarterly biomonitoring test results are due on or before April 20th, July 20th, October 20th, and January 20th, for biomonitoring conducted during the previous calendar quarter.
  - 4) Monthly biomonitoring test results are due on or before the 20th day of the month following sampling.

- c. Enter the following codes on the DMR for the appropriate parameters for valid tests only:
- 1) For the mysid shrimp, Parameter TLP3E, enter a "1" if the NOEC for survival is less than the critical dilution; otherwise, enter a "0."
  - 2) For the mysid shrimp, Parameter TOP3E, report the NOEC for survival.
  - 3) For the mysid shrimp, Parameter TXP3E, report the LOEC for survival.
  - 4) For the mysid shrimp, Parameter TWP3E, enter a "1" if the NOEC for growth is less than the critical dilution; otherwise, enter a "0."
  - 5) For the mysid shrimp, Parameter TPP3E, report the NOEC for growth.
  - 6) For the mysid shrimp, Parameter TYP3E, report the LOEC for growth.
  - 7) For the inland silverside, Parameter TLP6B, enter a "1" if the NOEC for survival is less than the critical dilution; otherwise, enter a "0."
  - 8) For the inland silverside, Parameter TOP6B, report the NOEC for survival.
  - 9) For the inland silverside, Parameter TXP6B, report the LOEC for survival.
  - 10) For the inland silverside, Parameter TWP6B, enter a "1" if the NOEC for growth is less than the critical dilution; otherwise, enter a "0."
  - 11) For the inland silverside, Parameter TPP6B, report the NOEC for growth.
  - 12) For the inland silverside, Parameter TYP6B, report the LOEC for growth.
- d. Enter the following codes on the DMR for retests only:
- 1) For retest number 1, Parameter 22415, enter a "1" if the NOEC for survival is less than the critical dilution; otherwise, enter a "0."
  - 2) For retest number 2, Parameter 22416, enter a "1" if the NOEC for survival is less than the critical dilution; otherwise, enter a "0."
- e. The permittee shall report the Whole Effluent Lethality values for the 30-day Average Minimum and the 7-day Minimum under Parameter No. 22414 on the DMR for the appropriate reporting period. If more than one valid test for a species was performed during the reporting period, the test NOECs will be averaged arithmetically and reported as the Daily Average Minimum NOEC for that reporting period. A valid test must be reported on the DMR during each reporting period specified on Page 2 of this permit. Only one set of biomonitoring data is to be recorded on the DMR for each reporting period. The data submitted should reflect the lowest survival results 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 submitted for review.

#### 4. Persistent Toxicity To The Inland Silverside

The requirements of this Part apply only when a test demonstrates a significant effect at the critical dilution. A significant effect is defined as a statistically significant difference, at the 95% confidence level, between a specified endpoint (survival, growth, or reproduction) of the test organism in a specified effluent dilution when compared to the specified endpoint of the test organism in the control. Significant lethality is defined as a statistically significant difference in survival at the critical dilution when compared to the survival of the test organism in the control. Significant sublethality is defined as a statistically significant difference in growth/reproduction at the critical dilution when compared to the growth/reproduction of the test organism in the control.

- a. The permittee shall conduct a total of 2 additional tests (retests) for any species that demonstrates a significant effect (lethal or sublethal) at the critical dilution. The two retests shall be conducted monthly during the next two consecutive months. The permittee shall not substitute either of the two retests in lieu of routine toxicity testing. All reports shall be submitted within 20 days of test completion. Test completion is defined as the last day of the test. The retests shall also be reported on the DMRs as specified in Part 3.d.
- b. If the retests are performed due to a demonstration of significant lethality, and one or both of the two retests specified in item 4.a. demonstrates significant lethality, the permittee shall initiate the TRE requirements as specified in Part 5. The provisions of item 4.a. are suspended upon completion of the two retests and submittal of the TRE Action Plan and Schedule defined in Part 5.

If neither test demonstrates significant lethality and the permittee is testing under the reduced testing frequency provision of Part 1.e., the permittee shall return to a quarterly testing frequency for that species.

- c. If the two retests are performed due to a demonstration of significant sublethality, and one or both of the two retests specified in item 4.a. demonstrates significant lethality, the permittee shall again perform two retests as stipulated in item 4.a.
  - d. If the two retests are performed due to a demonstration of significant sublethality, and both retests pass, the permittee shall continue testing at the quarterly frequency until such time that the permittee can invoke the reduced testing frequency provision specified in Part 1.e.
  - e. Regardless of whether retesting for lethal or sublethal effects, or a combination of the two, no more than one retest per month is required for a species.
5. Toxicity Reduction Evaluation For The Inland Silverside

- a. Within 45 days of the last test day of the retest that demonstrates significant lethality, the permittee shall submit a General Outline for initiating a TRE. The outline shall include, but not be limited to, a description of project personnel, a schedule for obtaining consultants (if needed), a discussion of influent and/or effluent data available for review, a sampling and analytical schedule, and a proposed TRE initiation date.
- b. Within 90 days of the last test day of the retest that demonstrates significant lethality, the permittee shall submit a TRE Action Plan and Schedule for conducting a TRE. The plan shall specify the approach and methodology to be used in performing the TRE. A Toxicity Reduction Evaluation is a step-wise investigation combining toxicity testing with physical and chemical analysis to determine actions necessary to eliminate or reduce effluent toxicity to a level not effecting significant lethality at the critical dilution. The TRE Action Plan shall lead to the successful elimination of significant lethal effects at the critical dilution for both test species defined in item 1.b. As a minimum, the TRE Action Plan shall include the following:
  - 1) Specific Activities - The TRE Action Plan shall specify the approach the permittee intends to utilize in conducting the TRE, including toxicity characterizations, identifications, confirmations; source evaluations, treatability studies, and/or alternative approaches. When conducting characterization analyses, the permittee shall perform multiple characterizations and follow the procedures specified in the document entitled, "Toxicity Identification Evaluation: Characterization of Chronically Toxic Effluent, Phase I" (EPA/600/6-91/005F), or alternate procedures. The permittee shall perform multiple identifications and follow the methods specified in the documents entitled, "Methods for Aquatic Toxicity Identification Evaluations, Phase II Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity" (EPA/600/R-92/080) and "Methods for Aquatic Toxicity Identification Evaluations, Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity" (EPA/600/R-92/081). All characterization, identification, and confirmation tests shall be conducted in an orderly and logical progression;

- 2) Sampling Plan - The TRE Action Plan should describe sampling locations, methods, holding times, chain of custody, and preservation techniques. The effluent sample volume collected for all tests shall be adequate to perform the toxicity characterization/ identification/ confirmation procedures, and chemical-specific analyses when the toxicity tests show significant lethality.  
  
Where the permittee has identified or suspects 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;
  - 3) Quality Assurance Plan - The TRE Action Plan should address record keeping and data evaluation, calibration and standardization, baseline tests, system blanks, controls, duplicates, spikes, toxicity persistence in the samples, randomization, reference toxicant control charts, as well as mechanisms to detect artifactual toxicity; and
  - 4) Project Organization - The TRE Action Plan should describe the project staff, project manager, consulting engineering services (where applicable), consulting analytical and toxicological services, etc.
- c. Within 30 days of submittal of the TRE Action Plan and Schedule, the permittee shall implement the TRE with due diligence.
- d. The permittee shall submit quarterly TRE Activities Reports concerning the progress of the TRE. The quarterly reports are due on or before April 20th, July 20th, October 20th, and January 20th. The report shall detail information regarding the TRE activities including:
- 1) results and interpretation of any chemical-specific analyses for the identified and/or suspected pollutant(s) performed during the quarter;
  - 2) results and interpretation of any characterization, identification, and confirmation tests performed during the quarter;
  - 3) any data and/or substantiating documentation which identifies the pollutant(s) and/or source(s) of effluent toxicity;
  - 4) results of any studies/evaluations concerning the treatability of the facility's effluent toxicity;
  - 5) 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; and
  - 6) any changes to the initial TRE Plan and Schedule that are believed necessary as a result of the TRE findings.

Copies of the TRE Activities Report shall also be submitted to the U.S. EPA Region 6 office.

- e. During the TRE, the permittee shall perform, at a minimum, quarterly testing using the more sensitive species; testing for the less sensitive species shall continue at the frequency specified in Part 1.b.
- f. If the effluent ceases to effect significant lethality (herein as defined below) the permittee may end the TRE. A "cessation of lethality" is defined as no significant lethality for a period of 12 consecutive months with at least monthly testing. At the end of the 12 months, the permittee shall submit a statement of intent to cease the TRE and may then resume the testing frequency specified in Part 1.b. The permittee may only apply the "cessation of lethality" provision once.

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

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

- g. The permittee shall complete the TRE and submit a Final Report on the TRE Activities no later than 28 months from the last test day of the retest that confirmed significant lethal effects at the critical dilution. The permittee may petition the Executive Director (in writing) for an extension of the 28-month limit. However, to warrant an extension the permittee must have demonstrated due diligence in their pursuit of the TIE/TRE and must prove that circumstances beyond their control stalled the TIE/TRE. The report shall provide information pertaining to the specific control mechanism(s) 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(s). A copy of the TRE Final Report shall also be submitted to the U.S. EPA Region 6 office.
- h. Based upon the results of the TRE and proposed corrective actions, this permit may be amended to modify the biomonitoring requirements, where necessary, to require a compliance schedule for implementation of corrective actions, to specify a WET limit, to specify a BMP, and/or to specify CS limits.

TABLE 1 (SHEET 1 OF 4)

MYSID SHRIMP SURVIVAL AND GROWTH

Date      Time                      Date              Time

Dates and Times      No. 1 FROM: \_\_\_\_\_ TO: \_\_\_\_\_  
 Composites  
 Collected              No. 2 FROM: \_\_\_\_\_ TO: \_\_\_\_\_  
                                     No. 3 FROM: \_\_\_\_\_ TO: \_\_\_\_\_

Test initiated: \_\_\_\_\_ am/pm \_\_\_\_\_ date

Dilution water used: \_\_\_\_\_ Receiving water      \_\_\_\_\_ Synthetic Dilution water

MYSID SHRIMP SURVIVAL

| Percent Effluent | Percent Survival in Replicate Chambers |   |   |   |   |   |   |   | Mean Percent Survival |     |       | CV%* |
|------------------|--|---|---|---|---|---|---|---|-----------------------|-----|-------|------|
|                  | A                                      | B | C | D | E | F | G | H | 24h                   | 48h | 7 day |      |
| 0%               |  |   |   |   |   |   |   |   |                       |     |       |      |
| 32%              |  |   |   |   |   |   |   |   |                       |     |       |      |
| 42%              |  |   |   |   |   |   |   |   |                       |     |       |      |
| 56%              |  |   |   |   |   |   |   |   |                       |     |       |      |
| 75%              |  |   |   |   |   |   |   |   |                       |     |       |      |
| 100%             |  |   |   |   |   |   |   |   |                       |     |       |      |

\* coefficient of variation = standard deviation x 100/mean

DATA TABLE FOR GROWTH OF MYSID SHRIMP

| Replicate | Mean dry weight in milligrams in replicate chambers |     |     |     |     |      |
|-----------|---|-----|-----|-----|-----|------|
|           | 0%  | 32% | 42% | 56% | 75% | 100% |
| A         |   |     |     |     |     |      |
| B         |   |     |     |     |     |      |
| C         |   |     |     |     |     |      |
| D         |   |     |     |     |     |      |
| E         |   |     |     |     |     |      |

TABLE 1 (SHEET 2 OF 4)  
MYSID SHRIMP SURVIVAL AND GROWTH

DATA TABLE FOR GROWTH OF MYSID SHRIMP (Continued)

| Replicate            | Mean dry weight in milligrams in replicate chambers |     |     |     |     |      |
|----------------------|---|-----|-----|-----|-----|------|
|                      | 0%  | 32% | 42% | 56% | 75% | 100% |
| F                    |   |     |     |     |     |      |
| G                    |   |     |     |     |     |      |
| H                    |   |     |     |     |     |      |
| Mean Dry Weight (mg) |   |     |     |     |     |      |
| CV%*                 |   |     |     |     |     |      |
| PMSD                 | Acceptable Range 11-37                              |     |     |     |     |      |

\* coefficient of variation = standard deviation x 100/mean

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

Is the mean survival at 7 days significantly less (p=0.05) than the control survival for the % effluent corresponding to lethality?

CRITICAL DILUTION (100%): \_\_\_\_\_ YES \_\_\_\_\_ NO

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

Is the mean dry weight (growth) at 7 days significantly less (p=0.05) than the control's dry weight (growth) for the % effluent corresponding to non-lethal effects?

CRITICAL DILUTION (100%): \_\_\_\_\_ YES \_\_\_\_\_ NO

- Enter percent effluent corresponding to each NOEC/LOEC below:

a.) NOEC survival = \_\_\_\_\_ % effluent

b.) LOEC survival = \_\_\_\_\_ % effluent

c.) NOEC growth = \_\_\_\_\_ % effluent

d.) LOEC growth = \_\_\_\_\_ % effluent

TABLE 1 (SHEET 3 OF 4)

INLAND SILVERSIDE LARVAL SURVIVAL AND GROWTH TEST

Date      Time                      Date      Time

Dates and Times      No. 1 FROM: \_\_\_\_\_ TO: \_\_\_\_\_  
 Composites              No. 2 FROM: \_\_\_\_\_ TO: \_\_\_\_\_  
 Collected              No. 3 FROM: \_\_\_\_\_ TO: \_\_\_\_\_

Test initiated: \_\_\_\_\_ am/pm \_\_\_\_\_ date

Dilution water used: \_\_\_\_\_ Receiving water      \_\_\_\_\_ Synthetic Dilution water

INLAND SILVERSIDE SURVIVAL

| Percent Effluent | Percent Survival in Replicate Chambers |   |   |   |   | Mean Percent Survival |     |        | CV%* |
|------------------|--|---|---|---|---|-----------------------|-----|--------|------|
|                  | A                                      | B | C | D | E | 24h                   | 48h | 7 days |      |
| 0%               |  |   |   |   |   |                       |     |        |      |
| 32%              |  |   |   |   |   |                       |     |        |      |
| 42%              |  |   |   |   |   |                       |     |        |      |
| 56%              |  |   |   |   |   |                       |     |        |      |
| 75%              |  |   |   |   |   |                       |     |        |      |
| 100%             |  |   |   |   |   |                       |     |        |      |

\* coefficient of variation = standard deviation x 100/mean

TABLE 1 (SHEET 4 OF 4)

INLAND SILVERSIDE LARVAL SURVIVAL AND GROWTH TEST

INLAND SILVERSIDE GROWTH

| Percent Effluent | Average Dry Weight in milligrams in replicate chambers |   |   |   |   | Mean Dry Weight (mg) | CV%* |
|------------------|--|---|---|---|---|----------------------|------|
|                  | A  | B | C | D | E |                      |      |
| 0%               |  |   |   |   |   |                      |      |
| 32%              |  |   |   |   |   |                      |      |
| 42%              |  |   |   |   |   |                      |      |
| 56%              |  |   |   |   |   |                      |      |
| 75%              |  |   |   |   |   |                      |      |
| 100%             |  |   |   |   |   |                      |      |
| PMSD             | Acceptable Range 11-28                                 |   |   |   |   |                      |      |

\* coefficient of variation = standard deviation x 100/mean

Weights are for: \_\_\_ preserved larvae, or \_\_\_ unpreserved larvae

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

Is the mean survival at 7 days significantly less (p=0.05) than the control survival for the % effluent corresponding to lethality?

CRITICAL DILUTION (100%): \_\_\_\_\_ YES \_\_\_\_\_ NO

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

Is the mean dry weight (growth) at 7 days significantly less (p=0.05) than the control's dry weight (growth) for the % effluent corresponding to non-lethal effects?

CRITICAL DILUTION (100%): \_\_\_\_\_ YES \_\_\_\_\_ NO

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

a.) NOEC survival = \_\_\_\_\_ % effluent

b.) LOEC survival = \_\_\_\_\_ % effluent

c.) NOEC growth = \_\_\_\_\_ % effluent

d.) LOEC growth = \_\_\_\_\_ % effluent

24-HOUR ACUTE BIOMONITORING REQUIREMENTS: MARINE

The provisions of this Section apply individually and separately to Outfall 001 for whole effluent toxicity testing (biomonitoring). No samples or portions of samples from one outfall may be composited with samples or portions of samples from another outfall.

1. Scope, Frequency and Methodology

- a. The permittee shall test the effluent for lethality in accordance with the provisions in this Section. Such testing will determine compliance with the Surface Water Quality Standard, 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.
- b. The toxicity tests specified shall be conducted once per six months. The permittee shall conduct the following toxicity tests utilizing the test organisms, procedures, and quality assurance requirements specified in this section of the permit and in accordance with "Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms, Fifth Edition" (EPA-821-R-02-012), or the most recent update thereof:
  - 1) Acute 24-hour static toxicity test using the mysid shrimp (*Mysidopsis bahia*). A minimum of five replicates with eight organisms per replicate shall be used in the control and in each dilution.
  - 2) Acute 24-hour static toxicity test using the inland silverside (*Menidia beryllina*). A minimum of five replicates with eight organisms per replicate shall be used in the control and in each dilution.

The permittee must perform and report a valid test for each test species during the prescribed reporting period. An invalid test must be repeated during the same reporting period. An invalid test is herein defined as any test failing to satisfy the test acceptability criteria, procedures, and quality assurance requirements specified in the test methods and permit. All test results, valid or invalid, must be submitted as described below.

- c. In addition to an appropriate control, a 100% effluent concentration shall be used in the toxicity tests. Except as discussed in item 2.b., the control and/or dilution water shall consist of a standard, synthetic, moderately hard, reconstituted water.
  - d. This permit may be amended to require a Whole Effluent Toxicity (WET) limit, a Best Management Practice (BMP), a Chemical-Specific (CS) limit, additional toxicity testing, and/or other appropriate actions to address toxicity. The permittee may be required to conduct additional biomonitoring tests and/or a Toxicity Reduction Evaluation (TRE) if biomonitoring data indicate multiple numbers of unconfirmed toxicity events.
  - e. If the dilution series specified in the Chronic Biomonitoring Requirements includes a 100% effluent concentration, the results from those tests may fulfill the requirements of this Section; any tests performed in the proper time interval may be substituted. Compliance will be evaluated as specified in item a. The 50% survival in 100% effluent for a 24-hour period standard applies to all tests utilizing a 100% effluent dilution, regardless of whether the results are submitted to comply with the minimum testing frequency defined in item b.
2. Required Toxicity Testing Conditions
- a. Test Acceptance - The permittee shall repeat any toxicity test, including the control, if the control fails to meet a mean survival equal to or greater than 90%.
  - b. Dilution Water - In accordance with item 1.c., the control and/or dilution water shall normally consist of a standard, synthetic, reconstituted seawater. If the permittee is utilizing the results of a 48-Hour Acute test or a Chronic test to satisfy the requirements in item 1.e., the permittee may use the receiving water or dilution water that meets the requirements of item 2.a. as the control and dilution water.

## c. Samples and Composites

- 1) The permittee shall collect one flow-weighted 24-hour composite sample from Outfall 001. A 24-hour composite sample consists of a minimum of 12 effluent portions collected at equal time intervals representative of a 24-hour operating day and combined proportional to flow, or a sample continuously collected proportional to flow over a 24-hour operating day.
- 2) The permittee shall collect the 24-hour composite samples such that the samples are representative of any periodic episode of chlorination, biocide usage, or other potentially toxic substance discharged on an intermittent basis.
- 3) The permittee shall initiate the toxicity tests within 36 hours after collection of the last portion of the 24-hour composite sample. Samples shall be maintained at a temperature of 0-6 degrees Centigrade during collection, shipping, and storage.
- 4) If the Outfall ceases discharging during the collection of the effluent composite sample, the requirements for the minimum number of effluent portions are waived. However, the permittee must have collected a composite sample volume sufficient for completion of the required test. The abbreviated sample collection, duration, and methodology must be documented in the full report required in Part 3 of this Section.

3. Reporting

All reports, tables, plans, summaries, and related correspondence required in any Part of this Section shall be submitted to the attention of the Water Quality Standards Team (MC 150) of the Water Permits and Resource Management Division. All DMRs, including DMRs with biomonitoring data, should be sent to the Enforcement Division (MC 224).

- a. The permittee shall prepare a full report of the results of all tests conducted pursuant to this permit in accordance with the Report Preparation Section of "Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms, Fifth Edition" (EPA-821-R-02-012), or the most recent update thereof, for every valid and invalid toxicity test initiated. All full reports shall be retained for three years at the plant site and shall be available for inspection by TCEQ personnel.
- b. A full report must be submitted with the first valid biomonitoring test results for each test species and with the first test results any time the permittee subsequently employs a different test laboratory. Full reports need not be submitted for subsequent testing unless specifically requested. The permittee shall routinely report the results of each biomonitoring test on the Table 2 forms provided with this permit. All Table 2 reports must include the information specified in the Table 2 form attached to this permit.
  - 1) Semiannual biomonitoring test results are due on or before January 20th and July 20th for biomonitoring conducted during the previous 6 month period.
  - 2) Quarterly biomonitoring test results are due on or before January 20th, April 20th, July 20th, and October 20th, for biomonitoring conducted during the previous calendar quarter.
- c. Enter the following codes on the DMR for the appropriate parameters for valid tests only:
  - 1) For the mysid shrimp, Parameter TIE3E, enter a "0" if the mean survival at 24-hours is greater than 50% in the 100% effluent dilution; if the mean survival is less than or equal to 50%, enter a "1."
  - 2) For the inland silverside, Parameter TIE6B, enter a "0" if the mean survival at 24-hours is greater than 50% in the 100% effluent dilution; if the mean survival is less than or equal to 50%, enter a "1."

- d. Enter the following codes on the DMR for retests only:
- 1) For retest number 1, Parameter 22415, enter a "0" if the mean survival at 24-hours is greater than 50% in the 100% effluent dilution; if the mean survival is less than or equal to 50%, enter a "1."
  - 2) For retest number 2, Parameter 22416, enter a "0" if the mean survival at 24-hours is greater than 50% in the 100% effluent dilution; if the mean survival is less than or equal to 50%, enter a "1."

#### 4. Persistent Mortality

The requirements of this Part apply when a toxicity test demonstrates significant lethality, here defined as a mean mortality of 50% or greater to organisms exposed to the 100% effluent concentration after 24-hours.

- a. The permittee shall conduct two additional tests (retests) for each species that demonstrates significant lethality. The two retests shall be conducted once per week for two weeks. Five effluent dilution concentrations in addition to an appropriate control shall be used in the retests. These additional effluent concentrations shall be 6%, 13%, 25%, 50% and 100% effluent. The first retest shall be conducted within 15 days of the laboratory determination of significant lethality. All test results shall be submitted within 20 days of test completion of the second retest. Test completion is defined as the 24th hour. The retests shall also be reported on the DMRs as specified in Part 3.d.
- b. If one or both of the two retests specified in item 4.a. demonstrates significant lethality, the permittee shall initiate the TRE requirements as specified in Part 5 of this Section.

#### 5. Toxicity Reduction Evaluation

- a. Within 45 days of the retest that demonstrates significant lethality, the permittee shall submit a General Outline for initiating a TRE. The outline shall include, but not be limited to, a description of project personnel, a schedule for obtaining consultants (if needed), a discussion of influent and/or effluent data available for review, a sampling and analytical schedule, and a proposed TRE initiation date.
- b. Within 90 days of the retest that demonstrates significant lethality, the permittee shall submit a TRE Action Plan and Schedule for conducting a TRE. The plan shall specify the approach and methodology to be used in performing the TRE. A Toxicity Reduction Evaluation is a step-wise investigation combining toxicity testing with physical and chemical analysis to determine actions necessary to eliminate or reduce effluent toxicity to a level not effecting significant lethality at the critical dilution. The TRE Action Plan shall lead to the successful elimination of significant lethality for both test species defined in item 1.b. As a minimum, the TRE Action Plan shall include the following:
  - 1) Specific Activities - The TRE Action Plan shall specify the approach the permittee intends to utilize in conducting the TRE, including toxicity characterizations, identifications, confirmations, source evaluations, treatability studies, and/or alternative approaches. When conducting characterization analyses, the permittee shall perform multiple characterizations and follow the procedures specified in the document entitled, "Methods for Aquatic Toxicity Identification Evaluations: Phase I Toxicity Characterization Procedures" (EPA/600/6-91/003), or alternate procedures. The permittee shall perform multiple identifications and follow the methods specified in the documents entitled, "Methods for Aquatic Toxicity Identification Evaluations, Phase II Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity" (EPA/600/R-92/080) and "Methods for Aquatic Toxicity Identification Evaluations, Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity" (EPA/600/R-92/081). All characterization, identification, and confirmation tests shall be conducted in an orderly and logical progression;

- 2) Sampling Plan - The TRE Action Plan should describe sampling locations, methods, holding times, chain of custody, and preservation techniques. The effluent sample volume collected for all tests shall be adequate to perform the toxicity characterization/ identification/ confirmation procedures, and chemical-specific analyses when the toxicity tests show significant lethality. Where the permittee has identified or suspects specific pollutant(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;
  - 3) Quality Assurance Plan - The TRE Action Plan should address record keeping and data evaluation, calibration and standardization, baseline tests, system blanks, controls, duplicates, spikes, toxicity persistence in the samples, randomization, reference toxicant control charts, as well as mechanisms to detect artifactual toxicity; and
  - 4) Project Organization - The TRE Action Plan should describe the project staff, project manager, consulting engineering services (where applicable), consulting analytical and toxicological services, etc.
- c. Within 30 days of submittal of the TRE Action Plan and Schedule, the permittee shall implement the TRE with due diligence.
- d. The permittee shall submit quarterly TRE Activities Reports concerning the progress of the TRE. The quarterly TRE Activities Reports are due on or before April 20th, July 20th, October 20th, and January 20th. The report shall detail information regarding the TRE activities including:
- 1) results and interpretation of any chemical-specific analyses for the identified and/or suspected pollutant(s) performed during the quarter;
  - 2) results and interpretation of any characterization, identification, and confirmation tests performed during the quarter;
  - 3) any data and/or substantiating documentation which identifies the pollutant(s) and/or source(s) of effluent toxicity;
  - 4) results of any studies/evaluations concerning the treatability of the facility's effluent toxicity;
  - 5) any data which identifies effluent toxicity control mechanisms that will reduce effluent toxicity to the level necessary to eliminate significant lethality; and
  - 6) any changes to the initial TRE Plan and Schedule that are believed necessary as a result of the TRE findings.

Copies of the TRE Activities Report shall also be submitted to the U.S. EPA Region 6 office.

- e. During the TRE, the permittee shall perform, at a minimum, quarterly testing using the more sensitive species; testing for the less sensitive species shall continue at the frequency specified in Part 1.b.
- f. If the effluent ceases to effect significant lethality (herein as defined below) the permittee may end the TRE. A "cessation of lethality" is defined as no significant lethality for a period of 12 consecutive weeks with at least weekly testing. At the end of the 12 weeks, the permittee shall submit a statement of intent to cease the TRE and may then resume the testing frequency specified in Part 1.b. The permittee may only apply the "cessation of lethality" provision once.

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

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

- g. The permittee shall complete the TRE and submit a Final Report on the TRE Activities no later than 18 months from the last test day of the retest that demonstrates significant lethality. The permittee may petition the Executive Director (in writing) for an extension of the 18-month limit. However, to warrant an extension the permittee must have demonstrated due diligence in their pursuit of the TIE/TRE and must prove that circumstances beyond their control stalled the TIE/TRE. The report shall specify the control mechanism(s) that will, when implemented, reduce effluent toxicity as specified in item 5.g. The report will also specify a corrective action schedule for implementing the selected control mechanism(s). A copy of the TRE Final Report shall also be submitted to the U.S. EPA Region 6 office.
- h. Within 3 years of the last day of the test confirming toxicity, the permittee shall comply with 30 TAC 307.6.(e)(2)(B), which requires greater than 50% survival of the test organism in 100% effluent at the end of 24-hours. The permittee may petition the Executive Director (in writing) for an extension of the 3-year limit. However, to warrant an extension the permittee must have demonstrated due diligence in their pursuit of the TIE/TRE and must prove that circumstances beyond their control stalled the TIE/TRE.

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

- i. Based upon the results of the TRE and proposed corrective actions, this permit may be amended to modify the biomonitoring requirements where necessary, to require a compliance schedule for implementation of corrective actions, to specify a WET limit, to specify a BMP, and/or to specify a CS limit.

TABLE 2 (SHEET 1 OF 2)

MYSID SHRIMP SURVIVAL

GENERAL INFORMATION

|                            | Time (am/pm) | Date |
|----------------------------|--------------|------|
| Composite Sample Collected |              |      |
| Test Initiated             |              |      |

PERCENT SURVIVAL

| Time | Rep  | Percent effluent (%) |    |     |     |     |      |
|------|------|----------------------|----|-----|-----|-----|------|
|      |      | 0%                   | 6% | 13% | 25% | 50% | 100% |
| 24h  | A    |                      |    |     |     |     |      |
|      | B    |                      |    |     |     |     |      |
|      | C    |                      |    |     |     |     |      |
|      | D    |                      |    |     |     |     |      |
|      | E    |                      |    |     |     |     |      |
|      | MEAN |                      |    |     |     |     |      |

1. Enter percent effluent corresponding to the LC50 below:

24 hour LC50 = \_\_\_\_\_ % effluent

95% confidence limits: \_\_\_\_\_

Method of LC50 calculation: \_\_\_\_\_

TABLE 2 (SHEET 2 OF 2)  
INLAND SILVERSIDE SURVIVAL

GENERAL INFORMATION

|                            |              |      |
|----------------------------|--------------|------|
|                            | Time (am/pm) | Date |
| Composite Sample Collected |              |      |
| Test Initiated             |              |      |

PERCENT SURVIVAL

| Time | Rep  | Percent effluent (%) |    |     |     |     |      |
|------|------|----------------------|----|-----|-----|-----|------|
|      |      | 0%                   | 6% | 13% | 25% | 50% | 100% |
| 24h  | A    |                      |    |     |     |     |      |
|      | B    |                      |    |     |     |     |      |
|      | C    |                      |    |     |     |     |      |
|      | D    |                      |    |     |     |     |      |
|      | E    |                      |    |     |     |     |      |
|      | MEAN |                      |    |     |     |     |      |

1. Enter percent effluent corresponding to the LC50 below:

24-hour LC50 = \_\_\_\_\_ % effluent

95% confidence limits: \_\_\_\_\_

Method of LC50 calculation: \_\_\_\_\_

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

For proposed Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0000359000 (TX0004839) to discharge to water in the state.

Issuing Office: Texas Commission on Environmental Quality  
P.O. Box 13087  
Austin, Texas 78711-3087

Applicant: Chevron Phillips Chemical Company LP  
P.O. Box 7400  
Orange, Texas 77631

Prepared By: Michael Sunderlin  
Wastewater Permitting Section (MC-148)  
Water Quality Division  
(512) 239-4523

Date: May 1, 2006

Permit Action: Amendment; TPDES Permit No. WQ0000359000

I. EXECUTIVE DIRECTOR RECOMMENDATION

The Executive Director has made a preliminary decision that this permit, if issued, meets all statutory and regulatory requirements. It is proposed the permit be issued to expire on March 1, 2011 in accordance with 30 TAC Section 305.71, Basin Permitting.

II. APPLICANT ACTIVITY

The applicant currently operates the Orange Plant, a polyethylene manufacturing facility.

III. DISCHARGE LOCATION

As described in the application, the plant site is located on the south side of Farm-to-Market Road 1006, approximately 1.7 miles east of the intersection of Farm-to-Market Road 1006 and State Highway 87, southwest of the City of Orange, Orange County, Texas. Discharge is to West Bunch Gully; thence to Cow Bayou Tidal in Segment No. 0511 of the Sabine River Basin.

IV. RECEIVING STREAM USES

The unclassified receiving waters have high aquatic life use for West Bunch Gully. The designated uses for Segment No. 0511 are high aquatic life use and contact recreation.

V. STREAM STANDARDS

The general criteria and numerical criteria which make up the stream standards are provided in the Texas Administrative Code (TAC), 30 TAC Sections 307.1 - §307.10, effective April 30, 1997.

## FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

VI. DISCHARGE DESCRIPTION

The following is a quantitative description of the discharge described in the Monthly Effluent Report data for the period September 2001 through November 2005. The "Average of Daily Avg." values presented in the following table are the average of all daily average values for the reporting period for each parameter. The "Maximum of Daily Max." values presented in the following table are the individual maximum values for the reporting period for each parameter:

## A. Flow

| <u>Outfall</u> | <u>Frequency</u> | <u>Average of Daily Avg</u> | <u>Maximum of Daily Max</u> |
|----------------|------------------|-----------------------------|-----------------------------|
| 001            | Continuous       | 0.92 MGD                    | 7.08 MGD                    |

## B. Temperature (degrees F)

| <u>Outfall</u> | <u>Daily Avg</u> | <u>Daily Max</u> |
|----------------|------------------|------------------|
| 001            | N/A              | 94 °F            |

## C. Effluent Characteristics

| <u>Outfall</u> | <u>Parameter</u>        | <u>Average of Daily Avg</u> | <u>Maximum of Daily Max</u> |
|----------------|-------------------------|-----------------------------|-----------------------------|
| 001            | BOD (5-day)             | 20.14 lbs/day               | 177 lbs/day                 |
|                | COD                     | 212.66 lbs/day              | 2716 lbs/day                |
|                | TSS                     | 13.2 mg/l                   | 164 mg/l                    |
|                | Oil & Grease            | 16.5 lbs/day                | 118 lbs/day                 |
|                | Total Copper            | 0.04 lbs/day                | 0.11 lbs/day                |
|                |                         | 0.0048 mg/l                 | 0.01 mg/l                   |
|                | Total Residual Chlorine | 1.58 mg/l (min)(*1)         | 0.05 mg/l (*2)              |
|                | Total Zinc              | 0.33 lbs/day                | 1.25 lbs/day                |
|                | Chloroform              | 0.025 lbs/day               | 0.05 lbs/day                |
|                | Organic Compounds (*3)  | Non-Detect                  | Non-Detect                  |
|                | pH                      | 5.8 S.U. (min)              | 8.7 S.U.                    |

(\*1) Exit of the chlorine contact chamber.

(\*2) Exit of the dechlorination chamber.

(\*3) Organic compounds from 40 CFR 414.101 not otherwise listed.

## C. Effluent Limitation Exceedances

| <u>Outfall</u> | <u>Parameter</u> | <u># Months of Daily Avg</u> | <u># Months of Daily Max</u> |
|----------------|------------------|------------------------------|------------------------------|
| 001            | pH               | 1 (min)                      | 0                            |
|                | TSS              | 0                            | 1                            |

## FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

The exceedance noted above are isolated incidents and do not require any action to be taken in this permit action. The daily maximum limitation for TSS has been increased as requested in the permit amendment application.

VII. PROPOSED EFFLUENT LIMITATIONS

Final effluent limitations are established in the draft permit as follows:

| <u>Outfall No.</u> | <u>Parameter</u>                  | <u>Daily Average</u> | <u>Daily Maximum</u> |
|--------------------|-----------------------------------|----------------------|----------------------|
| 001                | Flow                              | 3.15 MGD             | 8.6 MGD              |
|                    | Temperature                       | N/A                  | 105 °F               |
|                    | Chemical Oxygen Demand            | 2234 lbs/day         | 3943 lbs/day         |
|                    | Biochemical Oxygen Demand (5-day) | 460 lbs/day          | 1036 lbs/day         |
|                    |                                   | Report - mg/l        | Report - mg/l        |
|                    | Total Suspended Solids            | 40 mg/l              | 142 mg/l             |
|                    | Oil and Grease                    | 263 lbs/day          | 526 lbs/day          |
|                    | Ammonia (as Nitrogen)(*3)         | Report - mg/l        | Report - mg/l        |
|                    | Total Copper                      | 0.012 mg/l           | 0.026 mg/l           |
|                    | Total Zinc                        | 2.79 lbs/day         | 5.91 lbs/day         |
|                    | Acenaphthene                      | 0.13 lbs/day         | 0.33 lbs/day         |
|                    | Acenaphthylene                    | 0.13 lbs/day         | 0.33 lbs/day         |
|                    | Acrylonitrile                     | 0.26 lbs/day         | 0.55 lbs/day         |
|                    | Anthracene                        | 0.13 lbs/day         | 0.33 lbs/day         |
|                    | Benzene                           | 0.40 lbs/day         | 0.95 lbs/day         |
|                    | Benzo(a)anthracene                | 0.019 lbs/day        | 0.041 lbs/day        |
|                    | 3,4-Benzofluoranthene             | 0.14 lbs/day         | 0.34 lbs/day         |
|                    | Benzo(k)fluoranthene              | 0.13 lbs/day         | 0.33 lbs/day         |
|                    | Benzo(a)pyrene                    | 0.019 lbs/day        | 0.041 lbs/day        |
|                    | Bis(2-ethylhexyl)phthalate        | 0.67 lbs/day         | 1.83 lbs/day         |
|                    | Carbon Tetrachloride              | 1.01 lbs/day         | 2.70 lbs/day         |
|                    | Chlorobenzene                     | 1.01 lbs/day         | 2.70 lbs/day         |
|                    | Chloroethane                      | 0.78 lbs/day         | 2.09 lbs/day         |
|                    | Chloroform                        | 1.91 lbs/day         | 5.59 lbs/day         |
|                    | Chrysene                          | 0.13 lbs/day         | 0.33 lbs/day         |
|                    | Di-n-butyl phthalate              | 0.14 lbs/day         | 0.31 lbs/day         |
|                    | 1,2-Dichlorobenzene               | 1.39 lbs/day         | 5.63 lbs/day         |
|                    | 1,3-Dichlorobenzene               | 1.01 lbs/day         | 2.70 lbs/day         |
|                    | 1,4-Dichlorobenzene               | 1.01 lbs/day         | 2.70 lbs/day         |
|                    | 1,1-Dichloroethane                | 0.16 lbs/day         | 0.42 lbs/day         |
|                    | 1,2-Dichloroethane                | 1.28 lbs/day         | 4.07 lbs/day         |
|                    | 1,1-Dichloroethylene              | 0.14 lbs/day         | 0.30 lbs/day         |
|                    | 1,2-trans Dichloroethylene        | 0.18 lbs/day         | 0.47 lbs/day         |
|                    | 1,2-Dichloropropane               | 1.39 lbs/day         | 5.63 lbs/day         |
|                    | 1,3-Dichloropropylene             | 1.39 lbs/day         | 5.63 lbs/day         |
|                    | Diethylphthalate                  | 0.33 lbs/day         | 0.80 lbs/day         |
|                    | 2,4-Dimethylphenol                | 0.13 lbs/day         | 0.33 lbs/day         |
|                    | Dimethyl phthalate                | 0.13 lbs/day         | 0.33 lbs/day         |
|                    | 2,4-Dinitrophenol                 | 8.56 lbs/day         | 30.44 lbs/day        |

## FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

| <u>Outfall No.</u> | <u>Parameter</u>        | <u>Daily Average</u> | <u>Daily Maximum</u> |
|--------------------|-------------------------|----------------------|----------------------|
| 001 cont.          | 4,6-Dinitro-o-cresol    | 0.55 lbs/day         | 1.96 lbs/day         |
|                    | Ethylbenzene            | 1.01 lbs/day         | 2.70 lbs/day         |
|                    | Fluoranthene            | 0.16 lbs/day         | 0.38 lbs/day         |
|                    | Fluorene                | 0.13 lbs/day         | 0.33 lbs/day         |
|                    | Hexachlorobenzene       | 0.00017 lbs/day      | 0.00035 lbs/day      |
|                    | Hexachlorobutadiene     | 0.086 lbs/day        | 0.18 lbs/day         |
|                    | Hexachloroethane        | 1.22 lbs/day         | 2.57 lbs/day         |
|                    | Methylene Chloride      | 0.26 lbs/day         | 1.21 lbs/day         |
|                    | Methyl Chloride         | 0.78 lbs/day         | 2.09 lbs/day         |
|                    | Naphthalene             | 0.13 lbs/day         | 0.33 lbs/day         |
|                    | Nitrobenzene            | 5.61 lbs/day         | 11.9 lbs/day         |
|                    | 2-Nitrophenol           | 0.46 lbs/day         | 1.64 lbs/day         |
|                    | 4-Nitrophenol           | 1.15 lbs/day         | 4.09 lbs/day         |
|                    | Phenanthrene            | 0.07 lbs/day         | 0.14 lbs/day         |
|                    | Phenol                  | 0.13 lbs/day         | 0.33 lbs/day         |
|                    | Pyrene                  | 0.14 lbs/day         | 0.34 lbs/day         |
|                    | Tetrachloroethylene     | 0.37 lbs/day         | 1.16 lbs/day         |
|                    | 1,2,4-Trichlorobenzene  | 1.39 lbs/day         | 5.63 lbs/day         |
|                    | 1,1,1-Trichloroethylene | 0.16 lbs/day         | 0.42 lbs/day         |
|                    | 1,1,2-Trichloroethane   | 0.23 lbs/day         | 0.90 lbs/day         |
|                    | Trichloroethylene       | 0.18 lbs/day         | 0.49 lbs/day         |
|                    | Toluene                 | 0.20 lbs/day         | 0.52 lbs/day         |
|                    | Vinyl Chloride          | 0.69 lbs/day         | 1.22 lbs/day         |
|                    | pH                      | 6.0 S.U. (min)       | 9.0 S.U.             |
|                    | Total Residual Chlorine | 1.0 mg/l (min)       | 4.0 mg/l             |
|                    | Whole Effluent Toxicity |                      |                      |
|                    | <i>Mysidopsis bahia</i> | ≥100% NOEC           | ≥100% NOEC           |

(\*1) Beginning upon date of permit issuance and lasting for three (3) years.

(\*2) Beginning three (3) after date of permit issuance.

(\*3) Effective beginning upon date of permit issuance and lasting until February 28, 2011.

VIII. SUMMARY OF CHANGES FROM APPLICATION

The following changes have been made from the application which make the draft permit more stringent.

- \* Increased biomonitoring frequency for the inland silverside (*Menidia beryllina*) to once per quarter as requirement by the current TCEQ guidance document - "Implementation of the Texas Commission on Environmental Quality Standards Via Permitting". The testing frequency may be reduced during the permit term if the permittee performs four consecutive quarterly tests in which the test species does not demonstrate a significant lethality at or below the critical dilution.
- \* Added a monitoring requirement for ammonia nitrogen (NH<sub>3</sub>-N) at Outfall 001 based on modeling recommendations.

See the next section for additional changes to the existing permit.

## FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

IX. SUMMARY OF CHANGES FROM EXISTING PERMIT

The permittee requested the following changes in their amendment request which the Executive Director has recommended granting.

- \* Reduce the monitoring frequencies for total copper, oil & grease, biochemical oxygen demand (5-day), and chemical oxygen demand at Outfall 001. No exceedances of the permitted effluent limits for these parameters have been observed during the current permit term.
- \* Increase of the daily maximum effluent limitation for total suspended solids at Outfall 001. See Appendix A for more discussion.

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

- \* The permit includes the most current standard language for permit requirements (MAL, biomonitoring, & boiler plate).

X. DRAFT PERMIT RATIONALE

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

A. REASON FOR PERMIT ISSUANCE

The applicant has applied to the Texas Commission on Environmental Quality (TCEQ) for a major amendment to Permit No. WQ0000359000 to increase the daily maximum effluent limitation for total suspended solids at Outfall 001 and reduce the monitoring frequencies for total copper, oil & grease, biochemical oxygen demand (5-day), and chemical oxygen demand at Outfall 001. The current permit authorizes the discharge of process wastewater, utility wastewater, storm water, and domestic wastewater at a daily average flow not to exceed 3,150,000 gallons per day via Outfall 001.

The Executive Director has reviewed this action for consistency with the goals and policies of the Texas Coastal Management Program (CMP) in accordance with the regulations of the Coastal Coordination Council (CCC) and has determined that the action is consistent with the applicable CMP goals and policies.

B. WATER QUALITY SUMMARY

The discharge route is to West Bunch Gully; thence to Cow Bayou Tidal, Segment No. 0511 of the Sabine River Basin. The unclassified receiving waters have high aquatic life use for West Bunch Gully. The designated uses for Segment No. 0511 are high aquatic life use and contact recreation. Effluent limitations and/or conditions established in the draft permit are in compliance with state water quality standards and the applicable water quality management plan. The effluent limits in the draft permit will maintain and protect the existing instream uses. Additional discussion of the water quality aspects of the draft permit will be found at Section X.D. of this fact sheet.

## FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

In accordance with §307.5 and the TCEQ implementation procedures (January 2003) for the Texas Surface Water Quality Standards, an antidegradation review of the receiving waters was performed. A Tier 1 antidegradation review has preliminarily determined that existing water quality uses will not be impaired by this permit action. Numerical and narrative criteria to protect existing uses will be maintained. A Tier 2 review has preliminarily determined that no significant degradation of water quality is expected in West Bunch Gully, which has been identified as having high aquatic life uses. Existing uses will be maintained and protected. The preliminary determination can be reexamined and may be modified if new information is received.

The discharge from this permit is not expected to have an effect on any federal endangered or threatened aquatic or aquatic dependent species or proposed species or their critical habitat. This determination is based on the United States Fish and Wildlife Service's (USFWS) biological opinion on the State of Texas authorization of the Texas Pollutant Discharge Elimination System (TPDES; September 14, 1998; October 21, 1998 update). To make this determination for TPDES permits, TCEQ and EPA only considered aquatic or aquatic dependent species occurring in watersheds of critical concern or high priority as listed in Appendix A of the USFWS biological opinion. The determination is subject to reevaluation due to subsequent updates or amendments to the biological opinion. The permit does not require EPA review with respect to the presence of endangered or threaten species.

Segment No. 0511 is currently listed on the State's inventory of impaired and threatened waters, Texas 2002 Clean Water Act Section 303(d) List, Texas Commission on Environmental Quality, February 2005. The listing is specifically for elevated bacteria levels, low pH, and depressed dissolved oxygen. Issuance of the proposed draft permit is not anticipated to cause any additional adverse impact to the segment with respect to the listed impairments. In the case of pH, the impairment is confined to the upper four (4) miles of the segment and the discharge is downstream of the impaired area; also the permit maintains the pH limitations of 6.0 S.U. (min) and 9.0 S.U. (max) for the permitted discharge. In the case of bacteria, the draft permit continues the disinfection requirements for the treated domestic wastewater. In the case of depressed oxygen, the mass limitations for biochemical oxygen demand (5-day) will remain the same and will not allow for any additional loading to what is currently permitted.

C. TECHNOLOGY-BASED EFFLUENT LIMITATIONS/CONDITIONS

1. GENERAL COMMENTS

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

The proposed draft permit authorizes the discharge of process wastewater, utility wastewater, domestic wastewater, and storm water via Outfall 001 at a daily average flow not to exceed 3.15 million gallons per day.

The discharge of process wastewater via Outfall 001 from this facility is subject to federal effluent limitation guidelines at 40 CFR Part 414 Subparts D and J. A new source determination was performed and the discharge of process wastewater is not a new source

## FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

as defined at 40 CFR Section 122.2. Therefore new source performance standards (NSPS) are not required for this discharge.

The discharge of utility wastewater, domestic wastewater, and non-process area storm water via Outfall 001 is not subject to federal effluent limitation guidelines and any technology-based effluent limitations are based on best professional judgement.

The facility manufactures high density polyethylene. Process wastewater and storm water are treated to remove suspended solids comprised primarily of polyethylene particles, pellets, and dirt from storm water. Solids larger than 250 microns are removed in the wastewater treatment plant by rotary screens. Solids less than 250 microns are flocculated with a coagulant and removed in the dissolved air floatation (DAF) unit. During heavy storm events, where the capacity of the DAF is exceeded (3.6 MGD), the water overflows and enters the cube pond for suspended solids removal and then discharges via Outfall 001. Some of the facility's domestic wastewater is routed through the aerobic treatment plant and disinfected using sodium hypochlorite. After treatment, the domestic wastewater is commingled with treated process and utility wastewaters.

Two on-site sewage facilities treat sanitary wastewater by in-ground aeration tanks and irrigated on-site. This activity is not regulated under this permit.

## 2. CALCULATIONS

See Appendix A of this fact sheet for calculations and further discussion of technology-based effluent limitations proposed in the draft permit.

Technology-based effluent limitations for flow; temperature; chemical oxygen demand; and oil and grease at Outfall 001 are continued from the existing permit and are based on BPJ.

Technology-based effluent limitations for total residual chlorine at Outfall 001 are continued from the existing permit and are based on 30 TAC 309.

Technology-based effluent limitations for biochemical oxygen demand (5-day); total suspended solids (dly average only); and pH at Outfall 001 are continued from the existing permit and based on categorical guidelines (40 CFR Part 414) for process wastewaters, BPJ. for utility wastewaters and storm water, and 30 TAC 309 for domestic wastewaters.

Technology-based daily maximum effluent limitation for total suspended solids at Outfall 001 is based on categorical guidelines (40 CFR Part 414) for process wastewaters, BPJ. for utility wastewaters and storm water, and 30 TAC 309 for domestic wastewaters.

Technology-based effluent limitations for acenaphthene; acenaphthylene; anthracene; benzene; 3,4-benzofluoranthene; benzo(k)fluoranthene; bis(2-ethylhexyl)phthalate; carbon tetrachloride; chlorobenzene; chloroethane; chloroform; chrysene; di-n-butyl phthalate; 1,2-dichlorobenzene; 1,3-dichlorobenzene; 1,4-dichlorobenzene; 1,1-dichloroethane; 1,2-dichloroethane; 1,2-trans dichloroethylene; 1,2-dichloropropane; diethylphthalate; 2,4-dimethylphenol; dimethyl phthalate; 2,4-dinitrophenol; 4,6-dinitro-o-cresol; ethylbenzene; fluoranthene; fluorene; hexachloroethane ; methylene chloride; methyl chloride;

## FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

naphthalene; 2-nitrophenol; 4-nitrophenol; phenol; pyrene; tetrachloroethylene; 1,2,4-trichlorobenzene; 1,1,1-trichloroethylene; 1,1,2-trichloroethane; trichloroethylene; toluene; and vinyl chloride at Outfall 001 are continued from the existing permit and based on categorical guidelines (40 CFR Part 414).

The following technology-based effluent limitations are proposed in the draft permit:

| <u>Outfall No.</u> | <u>Parameter</u>                  | <u>Daily Avg</u> | <u>Daily Max</u> |
|--------------------|-----------------------------------|------------------|------------------|
| 001                | Flow                              | 3.15 MGD         | 8.6 MGD          |
|                    | Temperature                       | N/A              | 105 °F           |
|                    | Chemical Oxygen Demand            | 2234 lbs/day     | 3943 lbs/day     |
|                    | Biochemical Oxygen Demand (5-day) | 460 lbs/day      | 1036 lbs/day     |
|                    | Total Suspended Solids            | 40 mg/l          | 142 mg/l         |
|                    | Oil and Grease                    | 263 lbs/day      | 526 lbs/day      |
|                    | Acenaphthene                      | 0.13 lbs/day     | 0.33 lbs/day     |
|                    | Acenaphthylene                    | 0.13 lbs/day     | 0.33 lbs/day     |
|                    | Anthracene                        | 0.13 lbs/day     | 0.33 lbs/day     |
|                    | Benzene                           | 0.40 lbs/day     | 0.95 lbs/day     |
|                    | 3,4-Benzofluoranthene             | 0.14 lbs/day     | 0.34 lbs/day     |
|                    | Benzo(k)fluoranthene              | 0.13 lbs/day     | 0.33 lbs/day     |
|                    | Bis(2-ethylhexyl)phthalate        | 0.67 lbs/day     | 1.83 lbs/day     |
|                    | Carbon Tetrachloride              | 1.01 lbs/day     | 2.70 lbs/day     |
|                    | Chlorobenzene                     | 1.01 lbs/day     | 2.70 lbs/day     |
|                    | Chloroethane                      | 0.78 lbs/day     | 2.09 lbs/day     |
|                    | Chloroform                        | 1.91 lbs/day     | 5.59 lbs/day     |
|                    | Chrysene                          | 0.13 lbs/day     | 0.33 lbs/day     |
|                    | Di-n-butyl phthalate              | 0.14 lbs/day     | 0.31 lbs/day     |
|                    | 1,2-Dichlorobenzene               | 1.39 lbs/day     | 5.63 lbs/day     |
|                    | 1,3-Dichlorobenzene               | 1.01 lbs/day     | 2.70 lbs/day     |
|                    | 1,4-Dichlorobenzene               | 1.01 lbs/day     | 2.70 lbs/day     |
|                    | 1,1-Dichloroethane                | 0.16 lbs/day     | 0.42 lbs/day     |
|                    | 1,2-Dichloroethane                | 1.28 lbs/day     | 4.07 lbs/day     |
|                    | 1,2-trans Dichloroethylene        | 0.18 lbs/day     | 0.47 lbs/day     |
|                    | 1,2-Dichloropropane               | 1.39 lbs/day     | 5.63 lbs/day     |
|                    | 1,3-Dichloropropylene             | 1.39 lbs/day     | 5.63 lbs/day     |
|                    | Diethylphthalate                  | 0.33 lbs/day     | 0.80 lbs/day     |
|                    | 2,4-Dimethylphenol                | 0.13 lbs/day     | 0.33 lbs/day     |
|                    | Dimethyl phthalate                | 0.13 lbs/day     | 0.33 lbs/day     |
|                    | 2,4-Dinitrophenol                 | 8.56 lbs/day     | 30.44 lbs/day    |
|                    | 4,6-Dinitro-o-cresol              | 0.55 lbs/day     | 1.96 lbs/day     |
|                    | Ethylbenzene                      | 1.01 lbs/day     | 2.70 lbs/day     |
|                    | Fluoranthene                      | 0.16 lbs/day     | 0.38 lbs/day     |
|                    | Fluorene                          | 0.13 lbs/day     | 0.33 lbs/day     |
|                    | Hexachloroethane                  | 1.22 lbs/day     | 2.57 lbs/day     |
|                    | Methylene Chloride                | 0.26 lbs/day     | 1.21 lbs/day     |
|                    | Methyl Chloride                   | 0.78 lbs/day     | 2.09 lbs/day     |

## FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

| <u>Outfall No.</u> | <u>Parameter</u>        | <u>Daily Avg</u> | <u>Daily Max</u> |
|--------------------|-------------------------|------------------|------------------|
| 001 cont.          | Naphthalene             | 0.13 lbs/day     | 0.33 lbs/day     |
|                    | 2-Nitrophenol           | 0.46 lbs/day     | 1.64 lbs/day     |
|                    | 4-Nitrophenol           | 1.15 lbs/day     | 4.09 lbs/day     |
|                    | Phenol                  | 0.13 lbs/day     | 0.33 lbs/day     |
|                    | Pyrene                  | 0.14 lbs/day     | 0.34 lbs/day     |
|                    | Tetrachloroethylene     | 0.37 lbs/day     | 1.16 lbs/day     |
|                    | 1,2,4-Trichlorobenzene  | 1.39 lbs/day     | 5.63 lbs/day     |
|                    | 1,1,1-Trichloroethylene | 0.16 lbs/day     | 0.42 lbs/day     |
|                    | 1,1,2-Trichloroethane   | 0.23 lbs/day     | 0.90 lbs/day     |
|                    | Trichloroethylene       | 0.18 lbs/day     | 0.49 lbs/day     |
|                    | Toluene                 | 0.20 lbs/day     | 0.52 lbs/day     |
|                    | Vinyl Chloride          | 0.69 lbs/day     | 1.22 lbs/day     |
|                    | pH                      | 6.0 S.U. (min)   | 9.0 S.U.         |
|                    | Total Residual Chlorine | 1.0 mg/l (min)   | 4.0 mg/l         |

D. WATER QUALITY-BASED EFFLUENT LIMITATIONS/CONDITIONS1. GENERAL COMMENTS

The Texas Surface Water Quality Standards found at 30 TAC Chapter 307 state that "surface waters will not be toxic to man from ingestion of water, consumption of aquatic organisms, or contact with the skin, or to terrestrial or aquatic life." The methodology outlined in the "Implementation of the Texas Commission on Environmental Quality Standards via Permitting" is designed to insure compliance with 30 TAC Chapter 307. Specifically, the methodology is designed to insure that no source will be allowed to discharge any wastewater which: (1) results in instream aquatic toxicity; (2) causes a violation of an applicable narrative or numerical state water quality standard; (3) results in the endangerment of a drinking water supply; or (4) results in aquatic bioaccumulation which threatens human health.

TPDES permits contain technology-based effluent limits reflecting the best controls available. Where these technology-based permit limits do not protect water quality or the designated uses, additional water quality-based effluent limitations and/or conditions are included. State narrative and numerical water quality standards are used in conjunction with EPA criteria and other toxicity data bases to determine the adequacy of technology-based permit limits and the need for additional water quality-based controls.

2. AQUATIC LIFE CRITERIAa. SCREENING

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

## FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

Acute marine criteria are applied at the edge of the zone of initial dilution (ZID) and chronic marine criteria are applied at the edge of the aquatic life mixing zone. The ZID for this discharge is defined as 3 feet from the point where the discharge enters West Bunch Gully. The aquatic life mixing zone for this discharge is defined as a radius of 12.5 feet from the point where the discharge enters West Bunch Gully.

TCEQ uses the EPA horizontal jet plume model to estimate dilution at the edges of the ZID and aquatic life mixing zone for discharges into sections of bays, estuaries, and wide tidal rivers that are less than 400 feet wide. General assumptions used in the horizontal jet plume model are: a non-buoyant discharge, a submersed pipe, and no cross flow. Based on this analysis, the following critical effluent percentages are calculated based on the permitted flow of < 10 MGD:

|                     |      |
|---------------------|------|
| Acute Effluent %:   | 100% |
| Chronic Effluent %: | 100% |

Wasteload allocations (WLAs) are calculated using the above estimated effluent percentages, criteria outlined in the Texas Surface Water Quality Standards, and partitioning coefficients for metals (when appropriate and designated in the implementation procedures). The WLA is the end-of-pipe effluent concentration which can be discharged, when after mixing in the receiving stream, instream numerical criteria will not be exceeded. From the WLA, a long term average (LTA) is calculated using a log normal probability distribution, a given coefficient of variation (0.6), and a 99th percentile confidence level. The lower of the two LTAs (acute and chronic) is used to calculate a daily average and daily maximum effluent limitation for the protection of aquatic life using the same statistical considerations with the 99th percentile confidence level and a standard number of monthly effluent samples collected (12). Assumptions used in deriving the effluent limitations include segment values for hardness, chlorides, pH and Total Suspended Solids (TSS) according to the segment-specific values contained in the TCEQ guidance document, "Implementation of the Texas Commission on Environmental Quality Standards via Permitting." The segment values are 36 mg/l CaCO<sub>3</sub> for hardness, 317 mg/l Chlorides, 6.3 standard units for pH, and 8.0 mg/l for TSS. For additional details on the calculation of water quality-based effluent limitations, refer to the TCEQ guidance document.

TCEQ practice for determining significant potential is to compare the reported analytical data against percentages of the calculated daily average water quality-based effluent limitation. Permit limitations are required when analytical data reported in the application exceeds 85 percent of the calculated daily average water quality-based effluent limitation. Monitoring and reporting is required when analytical data reported in the application exceeds 70 percent of the calculated daily average water quality-based effluent limitation.

## FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

b. PERMIT ACTION

Analytical data reported in the application was screened against calculated water quality-based effluent limitations for the protection of aquatic life.

Reported analytical data for no parameters exceeds 70 percent of the calculated daily average water quality-based effluent limitation for aquatic life protection.

Calculated water quality-based effluent limitations for the following parameters are more stringent than the limitations in the existing permit:

Total Copper (dly avg)

Existing water quality-based effluent limitations for the following parameters are more stringent than or equivalent to the calculated water quality-based effluent limitations and/or the calculated technology-based effluent limitations, and are continued in the draft permit:

Phenanthrene  
Total Copper (dly max)  
Total Zinc

The following permit limitations and/or monitoring/reporting requirements are proposed in the draft permit for aquatic life protection:

| <u>Outfall No.</u> | <u>Parameter</u> | <u>Daily Avg.</u> | <u>Daily Max.</u> |
|--------------------|------------------|-------------------|-------------------|
| 001                | Phenanthrene     | 0.07 lbs/day      | 0.14 lbs/day      |
|                    | Total Copper     | 0.012 mg/l        | 0.026 mg/l        |
|                    | Total Zinc       | 2.79 lbs/day      | 5.91 lbs/day      |

See Appendix B of this fact sheet for calculation of water quality-based effluent limitations for aquatic life protection. For more details on the calculation of water quality-based effluent limitations, see the TCEQ guidance document - "Implementation of the Texas Commission on Environmental Quality Standards Via Permitting" and EPA's "Technical Support Document For Water Quality-based Toxics Control."

c. DISSOLVED OXYGEN

The technology-based effluent limitations for biochemical oxygen demand (5-day) at Outfall 001 are continued from the current TPDES permit and are consistent with recommendations in the modeling memo (TCEQ IOM dated 9/22/2005). In addition to continuing the current limits in the permit, the modeling memo also recommends a monitoring requirement for ammonia nitrogen (NH<sub>3</sub>-N) at Outfall 001. A concentration reporting requirement for biochemical oxygen demand (5-day) at Outfall 001 has also been added to the draft permit.

## FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

The following permit limitations and/or monitoring/reporting requirements are proposed in the draft permit for protection of the dissolved oxygen criterion:

| <u>Outfall No.</u> | <u>Parameter</u>                  | <u>Daily Avg.</u> | <u>Daily Max.</u> |
|--------------------|-----------------------------------|-------------------|-------------------|
| 001                | Biochemical Oxygen Demand (5-day) | Report - mg/l     | Report - mg/l     |
|                    | Ammonia (as N)(*1)                | Report - mg/l     | Report - mg/l     |

(\*1) Effective beginning upon date of permit issuance and lasting until February 28, 2011.

3. AQUATIC ORGANISM TOXICITY CRITERIA (7-DAY CHRONIC)a. SCREENING

The existing permit includes chronic marine biomonitoring requirements at Outfall 001.

From February 2000 to April 2005, the permittee has conducted 7-day chronic toxicity tests (in compliance with permit stipulated testing frequencies) using Mysidopsis bahia and Medidia beryllina. There have been two reported instances of sublethal growth failures in the mysids in August 2001 and April 2002.

The proposed draft permit continues the whole effluent toxicity (WET) limits for the Mysidopsis bahia at Outfall 001.

b. PERMIT ACTION

The provisions of this section apply to Outfall(s) 001.

Based on information contained in the permit application, TCEQ has determined that there may be pollutants present in the effluent(s) which may have the potential to cause toxic conditions in the receiving stream.

Whole effluent biomonitoring is the most direct measure of potential toxicity which incorporates the effects of synergism of effluent components and receiving stream water quality characteristics. Biomonitoring of the effluent is, therefore, required as a condition of this permit to assess potential toxicity. The biomonitoring procedures stipulated as a condition of this permit are as follows:

- i) Chronic static renewal 7-day survival and growth test using the mysid shrimp (Mysidopsis bahia). The frequency of the testing is once per quarter.
- ii) Chronic static renewal 7-day larval survival and growth test using the inland silverside (Menidia beryllina). The frequency of the testing is once per quarter.

## FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

The following whole effluent toxicity (WET) limits are continued from the current permit:

| <u>Outfall No.</u> | <u>Species</u>          | <u>Daily Avg.</u> | <u>Daily Max.</u> |
|--------------------|-------------------------|-------------------|-------------------|
| 001                | <i>Mysidopsis bahia</i> | ≥100% NOEC        | ≥100% NOEC        |

The permittee shall conduct all toxicity tests utilizing the test organisms, procedures, and quality assurance requirements specified below and in accordance with "Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms, Third Edition" (EPA-821-R-02-014), or the most recent update thereof. The stipulated test species are appropriate to measure the toxicity of the effluent consistent with the requirements of the State water quality standards. The biomonitoring frequency has been established to reflect the likelihood of ambient toxicity and to provide data representative of the toxic potential of the facility's discharge.

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

If none of the first four consecutive quarterly tests for the inland silverside (*Menidia beryllina*) demonstrates significant lethal or sub-lethal effects, the permittee may submit this information in writing and, upon approval from the Water Quality Standards Team, reduce the testing frequency to once per year for the vertebrate test species. If one or more of the first four consecutive quarterly tests demonstrates significant sub-lethal effects, the permittee shall continue quarterly testing until four consecutive quarterly tests demonstrate no significant sub-lethal effects. At that time, the permittee may apply for the appropriate testing frequency reduction. If one or more of the first four consecutive quarterly tests demonstrates significant lethal effects, the permittee shall continue quarterly testing until the permit is reissued. If a testing frequency reduction had been previously granted and a subsequent test demonstrates significant lethal effects, the permittee will resume a quarterly testing frequency until the permit is reissued.

c. DILUTION SERIES

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

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

## FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

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

The existing permit includes 24-hour acute marine biomonitoring language for Outfall 001. From February 2000 to January 2005, the permittee has conducted 24-hour acute toxicity tests (in compliance with the permit stipulated testing frequencies) using Mysidopsis bahia and Medidia beryllina with no reported significant toxicity.

b. PERMIT ACTION

24-hour, 100% acute biomonitoring tests are proposed at Outfall(s) 001 at a frequency of once per six months for the life of the permit.

The 24-hour acute biomonitoring procedures stipulated as a condition of this permit are as follows:

- i) Acute 24-hour static toxicity test using the mysid shrimp (Mysidopsis bahia). A minimum of five (5) replicates with eight (8) organisms per replicate shall be used for this test.
- ii) Acute 24-hour static toxicity test using the inland silverside (Menidia beryllina). A minimum of five (5) replicates with eight (8) organisms per replicate shall be used for this test.

5. AQUATIC ORGANISM BIOACCUMULATION CRITERIAa. SCREENING

Water quality-based effluent limitations for the protection of human health are calculated using criteria for the consumption of marine fish tissue found in Table 3 of the Texas Surface Water Quality Standards (30 TAC Chapter 307). Marine fish tissue bioaccumulation criteria are applied at the edge of the human health mixing zone for discharges into bays, estuaries and wide tidal rivers. The human health mixing zone for this discharge is defined as a 25-foot radius from the point where the discharge enters West Bunch Gully. TCEQ uses the EPA horizontal jet plume model to estimate dilution at the edge of the human health mixing zone for discharges into sections of bays, estuaries, or wide tidal rivers that are less than 400 feet wide. General assumptions used in the horizontal jet plume model are: a non-buoyant discharge, a submersed pipe, and no cross flow. Based on this analysis, the following critical effluent percentage is calculated based on the permitted flow of < 10 MGD:

Human Health Effluent %: 100%

## FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

Water quality-based effluent limitations for human health protection against the consumption of fish tissue are calculated using the same procedure as outlined for calculation of water quality-based effluent limitations for aquatic life protection. A 99th percentile confidence level in the long term average calculation is used with only one long term average value being calculated.

Significant potential is again determined by comparing reported analytical data against 70 percent and 85 percent of the calculated daily average water quality-based effluent limitation.

## b. PERMIT ACTION

Reported analytical data does not exceed 70 percent of the calculated daily average water quality-based effluent limitation for human health protection (using consumption of fish tissue criteria).

Calculated water quality-based effluent limitations for the following parameters are more stringent than the limitations in the existing permit and/or the calculated technology-based effluent limitations:

|                    |                      |
|--------------------|----------------------|
| Acrylonitrile      | 1,1-Dichloroethylene |
| Benzo(a)anthracene | Hexachlorobutadiene  |
| Benzo(a)pyrene     | Nitrobenzene         |

Existing water quality-based effluent limitations for the following parameters are more stringent than the calculated water quality-based effluent limitations and/or the calculated technology-based effluent limitations, and are continued in the draft permit:

Hexachlorobenzene  
1,3-Dichloropropylene

The following permit limitations and/or monitoring/reporting requirements are proposed in the draft permit for human health protection:

| <u>Outfall No.</u> | <u>Parameter</u>     | <u>Daily Avg.</u> | <u>Daily Max.</u> |
|--------------------|----------------------|-------------------|-------------------|
| 001                | Acrylonitrile        | 0.26 lbs/day      | 0.55 lbs/day      |
|                    | Benzo(a)anthracene   | 0.019 lbs/day     | 0.041 lbs/day     |
|                    | Benzo(a)pyrene       | 0.019 lbs/day     | 0.041 lbs/day     |
|                    | 1,1-Dichloroethylene | 0.14 lbs/day      | 0.30 lbs/day      |
|                    | Hexachlorobenzene    | 0.00017 lb/day    | 0.00035 lb/day    |
|                    | Hexachlorobutadiene  | 0.086 lbs/day     | 0.18 lbs/day      |
|                    | Nitrobenzene         | 5.61 lbs/day      | 11.9 lbs/day      |

## FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

6. DRINKING WATER SUPPLY PROTECTIONa. SCREENING

Water quality Segment No. 0511 which receives the discharge(s) from this facility is not designated as a public water supply. Screening reported analytical data for Outfall 001 against water quality-based effluent limitations calculated for the protection of a drinking water supply is not applicable.

b. PERMIT ACTION

None.

XI. PRETREATMENT REQUIREMENTS

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

XII. VARIANCE REQUESTS

No variance requests have been received.

XIII. PROCEDURES FOR FINAL DECISION

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

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

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

## FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

After the public comment deadline, the Executive Director prepares a response to all significant public comments on the application or the draft permit raised during the public comment period. The Chief Clerk then mails the Executive Director's Response to Comments and Final Decision to people who have filed comments, requested a contested case hearing, or requested to be on the mailing list. This notice provides that if a person is not satisfied with the Executive Director's response and decision, they can request a contested case hearing or file a request to reconsider the Executive Director's decision within 30 days after the notice is mailed.

The Executive Director will issue the permit unless a written hearing request or request for reconsideration is filed within 30 days after the Executive Director's Response to Comments and Final Decision is mailed. If a hearing request or request for reconsideration is filed, the Executive Director will not issue the permit and will forward the application and request to the TCEQ Commissioners for their consideration at a scheduled Commission meeting. If a contested case hearing is held, it will be a legal proceeding similar to a civil trial in state district court.

If the Executive Director calls a public meeting or the Commission grants a contested case hearing as described above, the Commission will give notice of the date, time, and place of the meeting or hearing. If a hearing request or request for reconsideration is made, the Commission will consider all public comments in making its decision and shall either adopt the Executive Director's response to public comments or prepare its own response.

For additional information about this application contact Michael Sunderlin at (512) 239-4523.

XIV. ADMINISTRATIVE RECORD

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

A. PERMIT(S)

TPDES Permit No. WQ0000359000 issued August 29, 2001.

B. APPLICATION

TPDES wastewater permit application received on August 29, 2005. Comment letter dated April 12, 2006.

C. 40 CFR CITATION(S)

40 CFR Part 122.44(i) - anti-backsliding regulations

40 CFR Part 414 - OCPSF Categorical Guidelines

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

D. LETTERS/MEMORANDA/RECORDS OF COMMUNICATION

E-mail from Sunderlin (TCEQ) to Tischler (Tischler-Kocurek) dated 5/01/2006.

TCEQ E-mail from Holligan (WQ Assessments) to Sunderlin (Industrial) dated 5/01/2006.

TCEQ IOM from Clayton (WQ Standards) to Industrial Team dated 9/23/2005.

TCEQ IOM from Holligan (WQ Assessments) to Industrial Team dated 9/22/2005.

TCEQ IOM from Smith (WQ Assessments) to Industrial Team dated 9/21/2005.

TCEQ IOM from Bergthold (WQ Standards) to Industrial Team dated 9/20/2005.

E. MISCELLANEOUS

Quality Criteria for Water (1986), EPA 440/5-86-001, 5/1/86.

The State of Texas Water Quality Inventory, 13th Edition, Publication No. SFR-50, Texas Commission on Environmental Quality, December 1996.

Texas Surface Water Quality Standards, 30 TAC Sections 307.1 - 307.10 (21 TexReg 9765, 4/30/97), and Appendix E, effective February 27, 2002.

"Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms, Fourth Edition," EPA/600/4-90/027F.

"Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms, Second Edition" (EPA-600-4-91-003).

"Procedures to Implement the Texas Surface Water Quality Standards," Texas Commission on Environmental Quality, January 2003.

"TCEQ Guidance Document for Establishing Monitoring Frequencies for Domestic and Industrial Wastewater Discharge Permits," TCEQ Document No. 98-001.000-OWR-WQ, May 1998.

## FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

## APPENDIX A

## CALCULATION OF TECHNOLOGY-BASED EFFLUENT LIMITATIONS

OCPSF ALLOCATIONS - BOD-5 & TSS:

OCPSF Process Wastewater - 40 CFR Part 414 Subpart D

|           |                             |   |                 |
|-----------|-----------------------------|---|-----------------|
| BOD-5 AVG | 24 ppm * 1.642 MGD * 8.345  | = | 328.86 lbs/day  |
| BOD-5 MAX | 64 ppm * 1.642 MGD * 8.345  | = | 876.96 lbs/day  |
| TSS AVG   | 40 ppm * 1.642 MGD * 8.345  | = | 548.10 lbs/day  |
| TSS MAX   | 130 ppm * 1.642 MGD * 8.345 | = | 1781.32 lbs/day |

UTILITY WASTEWATER & STORM WATER ALLOCATIONS - BOD-5 & TSS:

Utility Wastewater &amp; Storm Water - BPJ

|           |                               |   |                 |
|-----------|-------------------------------|---|-----------------|
| BOD-5 AVG | 15 ppm * 1.3274 MGD * 8.345   | = | 166.16 lbs/day  |
| BOD-5 MAX | 30 ppm * 1.3274 MGD * 8.345   | = | 332.31 lbs/day  |
| TSS AVG   | 40 ppm * 1.3274 MGD * 8.345   | = | 443.09 lbs/day  |
| TSS MAX   | 130 ppm * 1.32374 MGD * 8.345 | = | 1107.72 lbs/day |

DOMESTIC WASTEWATER ALLOCATIONS - BOD-5 & TSS:

Domestic Wastewater - BPJ

|           |                            |   |              |
|-----------|----------------------------|---|--------------|
| BOD-5 AVG | 20 ppm * 0.024 MGD * 8.345 | = | 4.01 lbs/day |
| BOD-5 MAX | 45 ppm * 0.024 MGD * 8.345 | = | 9.01 lbs/day |
| TSS AVG   | 20 ppm * 0.024 MGD * 8.345 | = | 4.01 lbs/day |
| TSS MAX   | 45 ppm * 0.024 MGD * 8.345 | = | 9.01 lbs/day |

SUMMATIONS - BOD-5 & TSS:

|          |           |                     |                |
|----------|-----------|---------------------|----------------|
| OCPSF    | BOD-5 AVG | 328.86 lbs/day      |                |
| UTILITY  | BOD-5 AVG | 166.16 lbs/day      |                |
| DOMESTIC | BOD-5 AVG | <u>4.01 lbs/day</u> |                |
|          |           | 499.03 lbs/day      | ≈ 499 lbs/day  |
| OCPSF    | BOD-5 MAX | 876.96 lbs/day      |                |
| UTILITY  | BOD-5 MAX | 332.31 lbs/day      |                |
| DOMESTIC | BOD-5 MAX | <u>9.01 lbs/day</u> |                |
|          |           | 1218.28 lbs/day     | ≈ 1218 lbs/day |
| OCPSF    | TSS AVG   | 548.10 lbs/day      |                |
| UTILITY  | TSS AVG   | 443.09 lbs/day      |                |
| DOMESTIC | TSS AVG   | <u>4.01 lbs/day</u> |                |
|          |           | 995.20 lbs/day      | ≈ 995 lbs/day  |
| OCPSF    | TSS MAX   | 1781.32 lbs/day     |                |
| UTILITY  | TSS MAX   | 1440.03 lbs/day     |                |
| DOMESTIC | TSS MAX   | <u>9.01 lbs/day</u> |                |
|          |           | 3230.36 lbs/day     | ≈ 3230 lbs/day |

## FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

PROPORTIONAL TSS CONCENTRATION CALCULATIONS

The current permit has concentration limitations for total suspended solids at Outfall 001 instead of mass limitations. Concentration limitations are calculated in the following manner:

The contributing wastestreams to Outfall 001 are divided into four (4) categories: process wastewater, utility wastewater, domestic wastewater, and storm water.

Question No. 4 on Page No. 6 of the permit application technical report provides the following percentage contribution for these categories:

|                     |               |
|---------------------|---------------|
| Process Wastewater  | 54.9% (0.549) |
| Utility Wastewater  | 25.6% (0.256) |
| Storm Water         | 18.7% (0.187) |
| Domestic Wastewater | 0.8% (0.008)  |

The following concentration limitations were used to calculate proportional allocations for the respective wastestreams.

|                     |  |                       |
|---------------------|--|-----------------------|
| Process Wastewater  | Dly Avg - 40 mg/l; Dly Max - 130 mg/l  | 40 CFR Part 414-D     |
| Utility Wastewater  | Dly Avg - 40 mg/l; Dly Max - 130 mg/l  | BPJ (Previous permit) |
| Storm Water         | Dly Avg - 100 mg/l; Dly Max - 200 mg/l | BPJ (MSGP thresholds) |
| Domestic Wastewater | Dly Avg - 20 mg/l; Dly Max - 45 mg/l   | 30 TAC 309            |

## TSS Dly Avg

|                                |                      |   |                      |
|--------------------------------|----------------------|---|----------------------|
| Process Wastewater Allocation  | (0.549) * (40 mg/l)  | = | 21.96 mg/l           |
| Utility Wastewater Allocation  | (0.256) * (40 mg/l)  | = | 10.24 mg/l           |
| Storm Water Allocation         | (0.187) * (100 mg/l) | = | 18.70 mg/l           |
| Domestic Wastewater Allocation | (0.008) * (20 mg/l)  | = | <u>0.16 mg/l</u>     |
|                                |                      |   | 51.06 mg/l ~ 51 mg/l |

## TSS Dly Max

|                                |                      |   |                        |
|--------------------------------|----------------------|---|------------------------|
| Process Wastewater Allocation  | (0.549) * (130 mg/l) | = | 71.37 mg/l             |
| Utility Wastewater Allocation  | (0.256) * (130 mg/l) | = | 33.28 mg/l             |
| Storm Water Allocation         | (0.187) * (200 mg/l) | = | 37.40 mg/l             |
| Domestic Wastewater Allocation | (0.008) * (45 mg/l)  | = | <u>0.36 mg/l</u>       |
|                                |                      |   | 142.41 mg/l ~ 142 mg/l |

The applicant has requested an increase in the daily maximum limitation for total suspended solids at Outfall 001. A review of the application and the applicable regulations [40 CFR Part 122.44(I)] has determined that the following exemptions to EPA's anti-backsliding regulations has been considered to allow this change:

Material and substantial alterations or additions to the permitted facility occurred after permit issuance which justify the application of a less stringent effluent limitation.

## FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

Specifically, the applicant has requested an increase in the TSS daily maximum effluent limitation at Outfall 001 based on the contribution of TSS in storm water. The current permit TSS effluent limitations at Outfall 001 were determined using the proportions of storm water, process wastewater, utility wastewater, and domestic wastewater that were documented at that time. Since that time, changes at the facility have resulted in an increase of storm water runoff from uncovered/unpaved areas which have a significant impact on the quality of the discharge with respect to total suspended solids. The daily maximum limit calculated above for TSS at Outfall 001 is proposed for the draft permit at Outfall 001. The current daily average limit for TSS at Outfall 001 is continued from the current permit.

## FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

## BAT EFFLUENT LIMITATIONS FOR THE OCPSF - 40 CFR 414.91 (SUBPART J):

|                                 |       |       |
|---------------------------------|-------|-------|
| Total Flow from Outfall         | 3.15  | (MGD) |
| Process Wastewater Flow         | 1.642 | (MGD) |
| Metal Bearing Wastewater Flow   | 0     | (MGD) |
| Cyanide Bearing Wastewater Flow | 0     | (MGD) |

| POLLUTANT                  | Daily Avg<br>(ug/l) | Daily Max<br>(ug/l) |  | Daily Avg<br>(lb/day) | Daily Max<br>(lb/day) |
|----------------------------|---------------------|---------------------|--|-----------------------|-----------------------|
| Chromium                   | 1110                | 2770                |  | N/A                   | N/A                   |
| Zinc                       | 1050                | 2610                |  | N/A                   | N/A                   |
| Copper                     | 1450                | 3380                |  | N/A                   | N/A                   |
| Lead                       | 320                 | 690                 |  | N/A                   | N/A                   |
| Nickel                     | 1690                | 3980                |  | N/A                   | N/A                   |
| Cyanide                    | 420                 | 1200                |  | N/A                   | N/A                   |
| Acenaphthene               | 19                  | 47                  |  | 0.26                  | 0.64                  |
| Acrylonitrile              | 94                  | 232                 |  | 1.29                  | 3.18                  |
| Benzene                    | 57                  | 134                 |  | 0.78                  | 1.84                  |
| Carbon Tetrachloride       | 142                 | 380                 |  | 1.95                  | 5.21                  |
| Chlorobenzene              | 142                 | 380                 |  | 1.95                  | 5.21                  |
| 1,2,4-Trichlorobenzene     | 196                 | 794                 |  | 2.69                  | 10.88                 |
| Hexachlorobenzene          | 196                 | 794                 |  | 2.69                  | 10.88                 |
| 1,2-Dichloroethane         | 180                 | 574                 |  | 2.47                  | 7.87                  |
| 1,1,1-Trichloroethane      | 22                  | 59                  |  | 0.30                  | 0.81                  |
| Hexachloroethane           | 196                 | 794                 |  | 2.69                  | 10.88                 |
| 1,1-Dichloroethane         | 22                  | 59                  |  | 0.30                  | 0.81                  |
| 1,1,2-Trichloroethane      | 26                  | 69                  |  | 0.36                  | 0.95                  |
| Chloroethane               | 110                 | 295                 |  | 1.51                  | 4.04                  |
| Chloroform                 | 111                 | 325                 |  | 1.52                  | 4.45                  |
| 1,2-Dichlorobenzene        | 196                 | 794                 |  | 2.69                  | 10.88                 |
| 1,3-Dichlorobenzene        | 142                 | 380                 |  | 1.95                  | 5.21                  |
| 1,4-Dichlorobenzene        | 142                 | 380                 |  | 1.95                  | 5.21                  |
| 1,1-Dichloroethylene       | 22                  | 60                  |  | 0.30                  | 0.82                  |
| 1,2-trans Dichloroethylene | 25                  | 66                  |  | 0.34                  | 0.90                  |
| 1,2-Dichloropropane        | 196                 | 794                 |  | 2.69                  | 10.88                 |
| 1,3-Dichloropropylene      | 196                 | 794                 |  | 2.69                  | 10.88                 |
| 2,4-Dimethylphenol         | 19                  | 47                  |  | 0.26                  | 0.64                  |
| 2,4-Dinitrotoluene         | 113                 | 285                 |  | 1.55                  | 3.91                  |
| Ethylbenzene               | 142                 | 380                 |  | 1.95                  | 5.21                  |
| Fluoranthene               | 22                  | 54                  |  | 0.30                  | 0.74                  |
| Methylene Chloride         | 36                  | 170                 |  | 0.49                  | 2.33                  |
| Methyl Chloride            | 110                 | 294                 |  | 1.51                  | 4.03                  |
| Hexachlorobutadiene        | 142                 | 380                 |  | 1.95                  | 5.21                  |
| Naphthalene                | 19                  | 47                  |  | 0.26                  | 0.64                  |
| Nitrobenzene               | 2,237               | 6,402               |  | 30.65                 | 87.72                 |
| 2-Nitrophenol              | 65                  | 231                 |  | 0.89                  | 3.17                  |
| 4-Nitrophenol              | 162                 | 576                 |  | 2.22                  | 7.89                  |
| 2,4-Dinitrophenol          | 1,207               | 4,291               |  | 16.54                 | 58.80                 |
| 4,6-Dinitro-o-cresol       | 78                  | 277                 |  | 1.07                  | 3.80                  |
| Phenol                     | 19                  | 47                  |  | 0.26                  | 0.64                  |
| Bis(2-ethylhexyl)phthalate | 95                  | 258                 |  | 1.30                  | 3.54                  |
| Di-n-butyl phthalate       | 20                  | 43                  |  | 0.27                  | 0.59                  |

## FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

|                       | Daily Avg | Daily Max |  | Daily Avg | Daily Max |
|-----------------------|-----------|-----------|--|-----------|-----------|
| POLLUTANT             | (ug/l)    | (ug/l)    |  | (lb/day)  | (lb/day)  |
| Diethyl phthalate     | 46        | 113       |  | 0.63      | 1.55      |
| Dimethyl phthalate    | 19        | 47        |  | 0.26      | 0.64      |
| Benzo(a)anthracene    | 19        | 47        |  | 0.26      | 0.64      |
| Benzo(a)pyrene        | 20        | 48        |  | 0.27      | 0.66      |
| 3,4-Benzofluoranthene | 20        | 48        |  | 0.27      | 0.66      |
| Benzo(k)fluoranthene  | 19        | 47        |  | 0.26      | 0.64      |
| Chrysene              | 19        | 47        |  | 0.26      | 0.64      |
| Acenaphthylene        | 19        | 47        |  | 0.26      | 0.64      |
| Anthracene            | 19        | 47        |  | 0.26      | 0.64      |
| Fluorene              | 19        | 47        |  | 0.26      | 0.64      |
| Phenanthrene          | 19        | 47        |  | 0.26      | 0.64      |
| Pyrene                | 20        | 48        |  | 0.27      | 0.66      |
| Tetrachloroethylene   | 52        | 184       |  | 0.71      | 2.52      |
| Toluene               | 28        | 74        |  | 0.38      | 1.01      |
| Trichloroethylene     | 26        | 69        |  | 0.36      | 0.95      |
| Vinyl Chloride        | 97        | 172       |  | 1.33      | 2.36      |

## FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

## APPENDIX B

## CALCULATION/SCREENING OF WATER QUALITY-BASED EFFLUENT LIMITATIONS

## TEXTOX MENU #5 - BAY OR WIDE TIDAL RIVER

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

- Table 1, 1997 Texas Surface Water Quality Standards (30 TAC 307) for Marine Aquatic Life
- Table 3, 2000 Texas Surface Water Quality Standards for Human Health
- "Procedures to Implement the Texas Surface Water Quality Standards," Texas Commission on Environmental Quality, January 2003.

## PERMITTEE INFORMATION:

Permittee Name: Chevron Phillips Chemical Company LP  
 TPDES Permit No: WQ0000359000  
 Outfall No: 001  
 Prepared By: Sunderlin  
 Date: February 24, 2006

## DISCHARGE INFORMATION:

Immediate Receiving Waterbody: West Bunch Gully; thence to Cow Bayou Tidal  
 Segment No: 0511  
 TSS: 8  
 Chloride: 317  
 Effluent Flow for Aquatic Life (MGD): < 10 MGD  
 Chronic Effluent % for Aquatic Life: 100  
 Acute Effluent % for Aquatic Life: 100  
 Oyster Waters: No  
 Effluent Flow for Human Health (MGD): < 10 MGD  
 Human Health Effluent %: 100

## CALCULATE TOTAL/DISSOLVED RATIO:

| Estuarine Metal  | Intercept (b) | Slope (m) | Partition Coefficient (Kp) | Dissolved Fraction (Cd/Ct) |         | Water Effects Ratio (WER) |               |
|------------------|---------------|-----------|----------------------------|----------------------------|---------|---------------------------|---------------|
| Aluminum         | N/A           | N/A       | N/A                        | 1.00                       | Assumed | 1                         | Assumed       |
| Arsenic          | N/A           | N/A       | N/A                        | 1.00                       | Assumed | 1                         | Assumed       |
| Cadmium          | N/A           | N/A       | N/A                        | 1.00                       | Assumed | 1                         | Assumed       |
| Chromium (Total) | N/A           | N/A       | N/A                        | 1.00                       | Assumed | 1                         | Assumed       |
| Chromium (+3)    | N/A           | N/A       | N/A                        | 1.00                       | Assumed | 1                         | Assumed       |
| Chromium (+6)    | N/A           | N/A       | N/A                        | 1.00                       | Assumed | 1                         | Assumed       |
| Copper           | 4.85          | -0.72     | 15840.731                  | 0.32                       |         | 1                         | Site Specific |
| Lead             | 6.06          | -0.85     | 196053.008                 | 0.39                       |         | 1                         | Assumed       |
| Mercury          | N/A           | N/A       | N/A                        | 1.00                       | Assumed | 1                         | Assumed       |
| Nickel           | N/A           | N/A       | N/A                        | 1.00                       | Assumed | 1                         | Assumed       |
| Selenium         | N/A           | N/A       | N/A                        | 1.00                       | Assumed | 1                         | Assumed       |
| Silver           | 5.86          | -0.74     | 155493.919                 | 0.45                       |         | 1                         | Assumed       |
| Zinc             | 5.36          | -0.52     | 77695.024                  | 0.31                       |         | 1                         | Site Specific |

## FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

## AQUATIC LIFE

## CALCULATE DAILY AVERAGE AND DAILY MAXIMUM EFFLUENT LIMITATIONS

| Parameter                           | Acute Standard (ug/L) | Chronic Standard (ug/L) | WLAa     | WLAc    | LTAa    | LTAc    | Daily Avg. (ug/L) | Daily Max. (ug/L) |
|-------------------------------------|-----------------------|-------------------------|----------|---------|---------|---------|-------------------|-------------------|
| Aldrin                              | 1.3                   | N/A                     | 1.300    | N/A     | 0.416   | N/A     | 0.612             | 1.294             |
| Aluminum <sup>d</sup>               | N/A                   | N/A                     | N/A      | N/A     | N/A     | N/A     | N/A               | N/A               |
| Arsenic <sup>d</sup>                | 149                   | 78                      | 149.000  | 78.000  | 47.680  | 47.580  | 69.943            | 147.974           |
| Cadmium <sup>d</sup>                | 45.62                 | 10.02                   | 45.620   | 10.020  | 14.598  | 6.112   | 8.985             | 19.009            |
| Carbaryl                            | 613                   | N/A                     | 613.000  | N/A     | 196.160 | N/A     | 288.355           | 610.058           |
| Chlordane                           | 0.09                  | 0.004                   | 0.090    | 0.004   | 0.029   | 0.002   | 0.004             | 0.008             |
| Chlorpyrifos                        | 0.011                 | 0.0056                  | 0.011    | 0.006   | 0.004   | 0.003   | 0.005             | 0.011             |
| Chromium (+3) <sup>d</sup>          | N/A                   | N/A                     | N/A      | N/A     | N/A     | N/A     | N/A               | N/A               |
| Chromium (+6) <sup>d</sup>          | 1100                  | 50                      | 1100.000 | 50.000  | 352.000 | 30.500  | 44.835            | 94.855            |
| Copper <sup>d</sup>                 | 16.27                 | 4.37                    | 50.844   | 13.656  | 16.270  | 8.330   | 12.246            | 25.907            |
| Copper <sup>d</sup> (oyster waters) | N/A                   | N/A                     | N/A      | N/A     | N/A     | N/A     | N/A               | N/A               |
| Cyanide (free)                      | 5.6                   | 5.6                     | 5.600    | 5.600   | 1.792   | 3.416   | 2.634             | 5.573             |
| 4,4'-DDT                            | 0.13                  | 0.0010                  | 0.130    | 0.001   | 0.042   | 0.001   | 0.001             | 0.002             |
| Dementon                            | N/A                   | 0.1                     | N/A      | 0.100   | N/A     | 0.061   | 0.090             | 0.190             |
| Dicofol                             | N/A                   | N/A                     | N/A      | N/A     | N/A     | N/A     | N/A               | N/A               |
| Dieldrin                            | 0.71                  | 0.0019                  | 0.710    | 0.002   | 0.227   | 0.001   | 0.002             | 0.004             |
| Diuron                              | N/A                   | N/A                     | N/A      | N/A     | N/A     | N/A     | N/A               | N/A               |
| Endosulfan I (alpha)                | 0.034                 | 0.0087                  | 0.034    | 0.009   | 0.011   | 0.005   | 0.008             | 0.017             |
| Endosulfan II (beta)                | 0.034                 | 0.0087                  | 0.034    | 0.009   | 0.011   | 0.005   | 0.008             | 0.017             |
| Endosulfan sulfate                  | 0.034                 | 0.0087                  | 0.034    | 0.009   | 0.011   | 0.005   | 0.008             | 0.017             |
| Endrin                              | 0.037                 | 0.0023                  | 0.037    | 0.002   | 0.012   | 0.001   | 0.002             | 0.004             |
| Guthion                             | N/A                   | 0.01                    | N/A      | 0.010   | N/A     | 0.006   | 0.009             | 0.019             |
| Heptachlor                          | 0.053                 | 0.0036                  | 0.053    | 0.004   | 0.017   | 0.002   | 0.003             | 0.007             |
| Hexachlorocyclohexane (Lindane)     | 0.16                  | N/A                     | 0.160    | N/A     | 0.051   | N/A     | 0.075             | 0.159             |
| Lead <sup>d</sup>                   | 140                   | 5.6                     | 359.579  | 14.383  | 115.065 | 8.774   | 12.897            | 27.286            |
| Malathion                           | N/A                   | 0.01                    | N/A      | 0.010   | N/A     | 0.006   | 0.009             | 0.019             |
| Mercury                             | 2.1                   | 1.1                     | 2.100    | 1.100   | 0.672   | 0.671   | 0.986             | 2.087             |
| Methoxychlor                        | N/A                   | 0.03                    | N/A      | 0.030   | N/A     | 0.018   | 0.027             | 0.057             |
| Mirex                               | N/A                   | 0.001                   | N/A      | 0.001   | N/A     | 0.001   | 0.001             | 0.002             |
| Nickel <sup>d</sup>                 | 119                   | 13.2                    | 119.000  | 13.200  | 38.080  | 8.052   | 11.836            | 25.042            |
| Parathion (ethyl)                   | N/A                   | N/A                     | N/A      | N/A     | N/A     | N/A     | N/A               | N/A               |
| Pentachlorophenol                   | 15.14                 | 9.56                    | 15.140   | 9.560   | 4.845   | 5.832   | 7.122             | 15.067            |
| Phenanthrene                        | 7.7                   | 4.6                     | 7.700    | 4.600   | 2.464   | 2.806   | 3.622             | 7.663             |
| Polychlorinated Biphenyls (PCBs)    | 10                    | 0.03                    | 10.000   | 0.030   | 3.200   | 0.018   | 0.027             | 0.057             |
| Selenium                            | 564                   | 136                     | 564.000  | 136.000 | 180.480 | 82.960  | 121.951           | 258.006           |
| Silver (free ion)                   | 2.3                   | N/A                     | 57.468   | N/A     | 18.390  | N/A     | 27.033            | 57.192            |
| Toxaphene                           | 0.21                  | 0.0002                  | 0.210    | 0.0002  | 0.067   | 0.0001  | 0.0002            | 0.0004            |
| Tributyltin (TBT)                   | 0.24                  | 0.043                   | 0.240    | 0.043   | 0.077   | 0.026   | 0.039             | 0.082             |
| 2,4,5 Trichlorophenol               | 259                   | 12                      | 259.000  | 12.000  | 82.880  | 7.320   | 10.760            | 22.765            |
| Zinc <sup>d</sup>                   | 98                    | 89                      | 316.129  | 287.097 | 101.161 | 175.129 | 148.707           | 314.612           |

## FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

## HUMAN HEALTH

## CALCULATE DAILY AVERAGE AND DAILY MAXIMUM EFFLUENT LIMITATIONS

| Parameter                                   | SW Fish Only (ug/L) | WLAh     | LTAh     | Daily Avg. (ug/L) | Daily Max. (ug/L) |
|---|---------------------|----------|----------|-------------------|-------------------|
| Acrylonitrile                               | 7.3                 | 7.300    | 6.789    | 9.980             | 21.114            |
| Aldrin                                      | 0.0028              | 0.003    | 0.003    | 0.004             | 0.008             |
| Arsenic <sup>d</sup>                        | N/A                 | N/A      | N/A      | N/A               | N/A               |
| Barium <sup>d</sup>                         | N/A                 | N/A      | N/A      | N/A               | N/A               |
| Benzene                                     | 70.8                | 70.800   | 65.844   | 96.791            | 204.775           |
| Benzidine                                   | 0.00232             | 0.002    | 0.002    | 0.003             | 0.007             |
| Benzo(a)anthracene                          | 0.540               | 0.540    | 0.502    | 0.738             | 1.562             |
| Benzo(a)pyrene                              | 0.540               | 0.540    | 0.502    | 0.738             | 1.562             |
| Bis(chloromethyl)ether                      | 0.0129              | 0.013    | 0.012    | 0.018             | 0.037             |
| Cadmium <sup>d</sup>                        | N/A                 | N/A      | N/A      | N/A               | N/A               |
| Carbon Tetrachloride                        | 5.6                 | 5.600    | 5.208    | 7.656             | 16.197            |
| Chlordane                                   | 0.0213              | 0.021    | 0.020    | 0.029             | 0.062             |
| Chlorobenzene                               | 920                 | 920.000  | 855.600  | 1257.732          | 2660.916          |
| Chloroform                                  | 861                 | 861.000  | 800.730  | 1177.073          | 2490.270          |
| Chromium <sup>d</sup>                       | 2216                | 2216.000 | 2060.880 | 3029.494          | 6409.337          |
| Chrysene                                    | 5.4                 | 5.400    | 5.022    | 7.382             | 15.618            |
| Cresols                                     | 8744                | 8744.000 | 8131.920 | 11953.922         | 25290.271         |
| Cyanide (free)                              | N/A                 | N/A      | N/A      | N/A               | N/A               |
| 4,4'-DDD                                    | 0.007               | 0.007    | 0.007    | 0.010             | 0.020             |
| 4,4'-DDE                                    | 0.005               | 0.005    | 0.005    | 0.007             | 0.014             |
| 4,4'-DDT                                    | 0.005               | 0.005    | 0.005    | 0.007             | 0.014             |
| 2,4'-D                                      | N/A                 | N/A      | N/A      | N/A               | N/A               |
| Danitrol                                    | 0.481               | 0.481    | 0.447    | 0.658             | 1.391             |
| Dibromochloromethane                        | 47.7                | 47.700   | 44.361   | 65.211            | 137.963           |
| 1,2-Dibromoethane                           | 0.223               | 0.223    | 0.207    | 0.305             | 0.645             |
| 1,3-Dichloropropene (1,3-Dichloropropylene) | 107                 | 107.000  | 99.510   | 146.280           | 309.476           |
| Dieldrin                                    | 0.001               | 0.001    | 0.001    | 0.001             | 0.003             |
| <i>p</i> -Dichlorobenzene                   | N/A                 | N/A      | N/A      | N/A               | N/A               |
| 1,2-Dichloroethane                          | 49.3                | 49.300   | 45.849   | 67.398            | 142.590           |
| 1,1-Dichloroethylene                        | 3.90                | 3.900    | 3.627    | 5.332             | 11.280            |
| Dicofol                                     | 0.144               | 0.144    | 0.134    | 0.197             | 0.416             |
| Dioxins/Furans (TCDD Equivalents)           | 9.33e-08            | 9.33e-08 | 8.68e-08 | 1.28e-07          | 2.70e-07          |
| Endrin                                      | 0.893               | 0.893    | 0.830    | 1.221             | 2.583             |
| Fluoride                                    | N/A                 | N/A      | N/A      | N/A               | N/A               |
| Heptachlor                                  | 0.00177             | 0.002    | 0.002    | 0.002             | 0.005             |
| Heptachlor Epoxide                          | 0.723               | 0.723    | 0.672    | 0.988             | 2.091             |
| Hexachlorobenzene                           | 0.0132              | 0.013    | 0.012    | 0.018             | 0.038             |
| Hexachlorobutadiene                         | 2.4                 | 2.400    | 2.232    | 3.281             | 6.942             |
| Hexachlorocyclohexane (alpha)               | 0.275               | 0.275    | 0.256    | 0.376             | 0.795             |
| Hexachlorocyclohexane (beta)                | 0.964               | 0.964    | 0.897    | 1.318             | 2.788             |
| Hexachlorocyclohexane (gamma) (Lindane)     | 1.34                | 1.340    | 1.246    | 1.832             | 3.876             |
| Hexachloroethane                            | 185                 | 185.000  | 172.050  | 252.914           | 535.076           |
| Hexachlorophene                             | 0.036               | 0.036    | 0.033    | 0.049             | 0.104             |
| Lead <sup>d</sup>                           | 16.9                | 43.406   | 40.368   | 59.341            | 125.544           |
| Mercury                                     | 0.0250              | 0.025    | 0.023    | 0.034             | 0.072             |
| Methoxychlor                                | 1.48                | 1.480    | 1.376    | 2.023             | 4.281             |
| Methyl Ethyl Ketone                         | 6.63e+06            | 6.63e+06 | 6.17e+06 | 9.06e+06          | 1.92e+07          |
| Nitrate-Nitrogen (as Total Nitrogen)        | N/A                 | N/A      | N/A      | N/A               | N/A               |
| Nitrobenzene                                | 156                 | 156.000  | 145.080  | 213.268           | 451.199           |

## FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

| Parameter                           | SW Fish Only (ug/L) | WLAh     | LTAh     | Daily Avg. (ug/L) | Daily Max. (ug/L) |
|-------------------------------------|---------------------|----------|----------|-------------------|-------------------|
| N-Nitrosodiethylamine               | 5.12                | 5.120    | 4.762    | 7.000             | 14.809            |
| N-Nitroso-di-n-Butylamine           | 8.98                | 8.980    | 8.351    | 12.277            | 25.973            |
| PCB's (Polychlorinated Biphenyls)   | 8.85e-04            | 8.85e-04 | 8.23e-04 | 1.21e-03          | 2.56e-03          |
| Pentachlorobenzene                  | 4.45                | 4.450    | 4.139    | 6.084             | 12.871            |
| Pentachlorophenol                   | 90                  | 90.000   | 83.700   | 123.039           | 260.307           |
| Pyridine                            | 8889                | 8889.000 | 8266.770 | 12152.152         | 25709.655         |
| Selenium                            | N/A                 | N/A      | N/A      | N/A               | N/A               |
| 1,2,4,5-Tetrachlorobenzene          | 0.162               | 0.162    | 0.151    | 0.221             | 0.469             |
| Tetrachloroethylene                 | 215                 | 215.000  | 199.950  | 293.927           | 621.845           |
| Toxaphene                           | 0.009               | 0.009    | 0.008    | 0.012             | 0.026             |
| 2,4,5-TP (Silvex)                   | 33.6                | 33.600   | 31.248   | 45.935            | 97.181            |
| 2,4,5-Trichlorophenol               | 712                 | 712.000  | 662.160  | 973.375           | 2059.318          |
| Trichloroethylene                   | 408                 | 408.000  | 379.440  | 557.777           | 1180.058          |
| 1,1,1-Trichloroethane               | 8391                | 8391.000 | 7803.630 | 11471.336         | 24269.289         |
| TTHM (Sum of Total Trihalomethanes) | N/A                 | N/A      | N/A      | N/A               | N/A               |
| Vinyl Chloride                      | 277                 | 277.000  | 257.610  | 378.687           | 801.167           |

## CALCULATE 70% AND 85% OF DAILY AVERAGE EFFLUENT LIMITATIONS

| Parameter                           | 70%     | 85%     |
|-------------------------------------|---------|---------|
| <u>Aquatic Life</u>                 |         |         |
| Aldrin                              | 0.428   | 0.520   |
| Aluminum                            | N/A     | N/A     |
| Arsenic                             | 48.960  | 59.451  |
| Cadmium                             | 6.289   | 7.637   |
| Carbaryl                            | 201.849 | 245.102 |
| Chlordane                           | 0.003   | 0.003   |
| Chlorpyrifos                        | 0.004   | 0.004   |
| Chromium (+3)                       | N/A     | N/A     |
| Chromium (+6)                       | 31.385  | 38.110  |
| Copper                              | 8.572   | 10.409  |
| Copper <sup>d</sup> (oyster waters) | N/A     | N/A     |
| Cyanide (free)                      | 1.844   | 2.239   |
| 4,4'-DDT                            | 0.001   | 0.001   |
| Dementon                            | 0.063   | 0.076   |
| Dicofol                             | N/A     | N/A     |
| Dieldrin                            | 0.001   | 0.001   |
| Diuron                              | N/A     | N/A     |
| Endosulfan (alpha)                  | 0.005   | 0.007   |
| Endosulfan (beta)                   | 0.005   | 0.007   |
| Endosulfan sulfate                  | 0.005   | 0.007   |
| Endrin                              | 0.001   | 0.002   |
| Guthion                             | 0.006   | 0.008   |
| Heptachlor                          | 0.002   | 0.003   |
| Hexachlorocyclohexane (Lindane)     | 0.053   | 0.064   |
| Lead                                | 9.028   | 10.963  |
| Malathion                           | 0.006   | 0.008   |
| Mercury                             | 0.690   | 0.838   |
| Methoxychlor                        | 0.019   | 0.023   |
| Mirex                               | 0.001   | 0.001   |
| Nickel                              | 8.286   | 10.061  |

## FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

| Parameter                                   | 70%      | 85%       |
|---|----------|-----------|
| Parathion (ethyl)                           | N/A      | N/A       |
| Pentachlorophenol                           | 4.985    | 6.054     |
| Phenanthrene                                | 2.535    | 3.079     |
| Polychlorinated Biphenyls (PCBs)            | 0.019    | 0.023     |
| Selenium                                    | 85.366   | 103.659   |
| Silver, (free ion)                          | 18.923   | 22.978    |
| Toxaphene                                   | 0.0001   | 0.0002    |
| Tributyltin (TBT)                           | 0.027    | 0.033     |
| 2,4,5 Trichlorophenol                       | 7.532    | 9.146     |
| Zinc  | 104.095  | 126.401   |
| <i>Human Health</i>                         |          |           |
| Acrylonitrile                               | 6.986    | 8.483     |
| Aldrin                                      | 0.003    | 0.003     |
| Arsenic                                     | N/A      | N/A       |
| Barium                                      | N/A      | N/A       |
| Benzene                                     | 67.753   | 82.272    |
| Benzidine                                   | 0.002    | 0.003     |
| Benzo(a)anthracene                          | 0.517    | 0.628     |
| Benzo(a)pyrene                              | 0.517    | 0.628     |
| Bis(chloromethyl)ether                      | 0.012    | 0.015     |
| Cadmium                                     | N/A      | N/A       |
| Carbon Tetrachloride                        | 5.359    | 6.507     |
| Chlordane                                   | 0.020    | 0.025     |
| Chlorobenzene                               | 880.412  | 1069.072  |
| Chloroform                                  | 823.951  | 1000.512  |
| Chromium                                    | 2120.646 | 2575.070  |
| Chrysene                                    | 5.168    | 6.275     |
| Cresols                                     | 8367.746 | 10160.834 |
| Cyanide (free)                              | N/A      | N/A       |
| 4,4'-DDD                                    | 0.007    | 0.008     |
| 4,4'-DDE                                    | 0.005    | 0.006     |
| 4,4'-DDT                                    | 0.005    | 0.006     |
| 2,4'-D                                      | N/A      | N/A       |
| Danitol                                     | 0.460    | 0.559     |
| Dibromochloromethane                        | 45.647   | 55.429    |
| 1,2-Dibromoethane                           | 0.213    | 0.259     |
| 1,3-Dichloropropene (1,3-Dichloropropylene) | 102.396  | 124.338   |
| Dieldrin                                    | 0.001    | 0.001     |
| p-Dichlorobenzene                           | N/A      | N/A       |
| 1,2-Dichloroethane                          | 47.179   | 57.288    |
| 1,1-Dichloroethylene                        | 3.732    | 4.532     |
| Dicofol                                     | 0.138    | 0.167     |
| Dioxins/Furans (TCDD Equivalents)           | 8.93e-08 | 1.08e-07  |
| Endrin                                      | 0.855    | 1.038     |
| Fluoride                                    | N/A      | N/A       |
| Heptachlor                                  | 0.002    | 0.002     |
| Heptachlor Epoxide                          | 0.692    | 0.840     |
| Hexachlorobenzene                           | 0.013    | 0.015     |
| Hexachlorobutadiene                         | 2.297    | 2.789     |
| Hexachlorocyclohexane (alpha)               | 0.263    | 0.320     |
| Hexachlorocyclohexane (beta)                | 0.923    | 1.120     |

## FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

| Parameter                                  | 70%      | 85%       |
|--|----------|-----------|
| Hexachlorocyclohexane (gamma)<br>(Lindane) | 1.282    | 1.557     |
| Hexachloroethane                           | 177.039  | 214.976   |
| Hexachlorophene                            | 0.034    | 0.042     |
| Lead                                       | 41.539   | 50.440    |
| Mercury                                    | 0.024    | 0.029     |
| Methoxychlor                               | 1.416    | 1.720     |
| Methyl Ethyl Ketone                        | 6.34e+06 | 7.70e+06  |
| Nitrate-Nitrogen (as Total Nitrogen)       | N/A      | N/A       |
| Nitrobenzene                               | 149.287  | 181.277   |
| <i>N</i> -Nitrosodiethylamine              | 4.900    | 5.950     |
| <i>N</i> -Nitroso-di- <i>n</i> -Butylamine | 8.594    | 10.435    |
| PCB's (Polychlorinated Biphenyls)          | 8.47e-04 | 1.03e-03  |
| Pentachlorobenzene                         | 4.259    | 5.171     |
| Pentachlorophenol                          | 86.127   | 104.583   |
| Pyridine                                   | 8506.506 | 10329.329 |
| Selenium                                   | N/A      | N/A       |
| 1,2,4,5-Tetrachlorobenzene                 | 0.155    | 0.188     |
| Tetrachloroethylene                        | 205.749  | 249.838   |
| Toxaphene                                  | 0.009    | 0.010     |
| 2,4,5-TP (Silvex)                          | 32.154   | 39.044    |
| 2,4,5-Trichlorophenol                      | 681.363  | 827.369   |
| Trichloroethylene                          | 390.444  | 474.110   |
| 1,1,1-Trichloroethane                      | 8029.935 | 9750.636  |
| TTHM (Sum of Total<br>Trihalomethanes)     | N/A      | N/A       |
| Vinyl Chloride                             | 265.081  | 321.884   |

## FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

## Calculation of Water Quality-Based Mass Limitations for Selected Parameters @ Outfall 001:

Mass limitations are calculated by the following equation:

$$[(\text{conc. ug/l})/1000] * [\text{dly avg flow (MGD)}] * [8.345] = \text{Mass lbs/day}$$

Example - Dly Avg Total Copper:

$$[(12.246 \text{ ug/l})/1000] * [3.15 \text{ MGD}] * [8.345] = 0.116 \text{ lbs/day}$$

| <u>Pollutant</u>      | <u>Dly Avg<br/>ug/l</u> | <u>Dly Avg<br/>ug/l</u> | <u>Dly Avg<br/>lbs/day</u> | <u>Dly Avg<br/>lbs/day</u> |
|-----------------------|-------------------------|-------------------------|----------------------------|----------------------------|
| Total Copper          | 12.246                  | 25.907                  | 0.322                      | 0.681                      |
| Total Zinc            | 148.707                 | 314.612                 | 3.91                       | 8.27                       |
| Acrylonitrile         | 9.98                    | 21.114                  | 0.262                      | 0.555                      |
| Benzo(a)anthracene    | 0.738                   | 1.562                   | 0.019                      | 0.041                      |
| Benzo(a)pyrene        | 0.738                   | 1.562                   | 0.019                      | 0.041                      |
| 1,3-Dichloropropylene | 146.28                  | 309.476                 | 3.84                       | 8.14                       |
| 1,1-Dichloroethylene  | 5.332                   | 11.28                   | 0.140                      | 0.296                      |
| Hexachlorobenzene     | 0.018                   | 0.038                   | 0.00047                    | 0.0010                     |
| Hexachlorobutadiene   | 3.281                   | 6.942                   | 0.086                      | 0.182                      |
| Nitrobenzene          | 213.262                 | 451.199                 | 5.61                       | 11.9                       |
| Phenanthrene          | 3.622                   | 7.663                   | 0.095                      | 0.201                      |

Calculated water quality-based mass effluent limitations for the following pollutants are more stringent than the existing effluent limitations and/or calculated technology-based effluent limitations:

|                    |                      |
|--------------------|----------------------|
| Acrylonitrile      | 1,1-Dichloroethylene |
| Benzo(a)pyrene     | Hexachlorobutadiene  |
| Benzo(a)anthracene | Nitrobenzene         |

Calculated water quality-based concentration effluent limitations for the following pollutants are more stringent than the existing effluent limitations and/or calculated technology-based effluent limitations:

Total Copper (dly avg only)

## Compliance History

Customer/Respondent/Owner-Operator: CN600303614 Chevron Phillips Chemical Company LP Classification: AVERAGE Rating: 3.74

Regulated Entity: RN100215615 CHEVRON PHILLIPS CHEMICAL ORANGE POLYETHYLENE PLANT Classification: AVERAGE Site Rating: 2.56

ID Number(s):

|   |                                  |              |
|---|----------------------------------|--------------|
| AIR OPERATING PERMITS                     | ACCOUNT NUMBER                   | OC0012Q      |
| AIR OPERATING PERMITS                     | PERMIT                           | 1310         |
| WASTEWATER                                | PERMIT                           | WQ0000359000 |
| WASTEWATER                                | PERMIT                           | TPDES0004839 |
| WASTEWATER                                | PERMIT                           | TX0004839    |
| INDUSTRIAL AND HAZARDOUS WASTE GENERATION | EPA ID                           | TXD008088833 |
| INDUSTRIAL AND HAZARDOUS WASTE GENERATION | SOLID WASTE REGISTRATION # (SWR) | 30015        |
| AIR NEW SOURCE PERMITS                    | ACCOUNT NUMBER                   | OC0118W      |
| AIR NEW SOURCE PERMITS                    | PERMIT                           | 583A         |
| AIR NEW SOURCE PERMITS                    | PERMIT                           | 4140A        |
| AIR NEW SOURCE PERMITS                    | PERMIT                           | 2017A        |
| AIR NEW SOURCE PERMITS                    | PERMIT                           | 8335A        |
| AIR NEW SOURCE PERMITS                    | PERMIT                           | 13293A       |
| AIR NEW SOURCE PERMITS                    | PERMIT                           | 19394        |
| AIR NEW SOURCE PERMITS                    | PERMIT                           | 21116        |
| AIR NEW SOURCE PERMITS                    | PERMIT                           | 27481        |
| AIR NEW SOURCE PERMITS                    | PERMIT                           | 42293        |
| AIR NEW SOURCE PERMITS                    | PERMIT                           | 45682        |
| AIR NEW SOURCE PERMITS                    | REGISTRATION                     | 55298        |
| AIR NEW SOURCE PERMITS                    | REGISTRATION                     | 75444        |
| AIR NEW SOURCE PERMITS                    | AFS NUM                          | 0014         |
| AIR NEW SOURCE PERMITS                    | REGISTRATION                     | 70758        |
| AIR NEW SOURCE PERMITS                    | PERMIT                           | 71619        |
| AIR NEW SOURCE PERMITS                    | REGISTRATION                     | 73257        |
| AIR NEW SOURCE PERMITS                    | REGISTRATION                     | 78485        |
| PUBLIC WATER SYSTEM/SUPPLY                | REGISTRATION                     | 1810093      |
| WASTEWATER LICENSING                      | LICENSE                          | WQ0000359000 |
| IHW CORRECTIVE ACTION                     | SOLID WASTE REGISTRATION # (SWR) | 30015        |

Location: PO BOX 7400, ORANGE, TX, 77631 Rating Date: 9/1/2006 Repeat Violator: NO

TCEQ Region: REGION 10 - BEAUMONT

Date Compliance History Prepared: December 27, 2006

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

Compliance Period: August 29, 2000 to December 27, 2006

TCEQ Staff Member to Contact for Additional Information Regarding this Compliance History

Name: Michael Sunderlin Phone: (512) 239-4523

### Site Compliance History Components

1. Has the site been in existence and/or operation for the full five year compliance period? Yes
2. Has there been a (known) change in ownership of the site during the compliance period? Yes
3. If Yes, who is the current owner? Little Giant Manufacturing
4. If Yes, who was/were the prior owner(s)? Chevron Phillips Chemical Company LP
5. When did the change(s) in ownership occur? 11/16/2000

### Components (Multimedia) for the Site :

A. Final Enforcement Orders, court judgements, and consent decrees of the state of Texas and the federal government.

Effective Date: 06/15/2006

ADMINORDER 2005-1769-AIR-E

Classification: Moderate

Citation: 30 TAC Chapter 101, SubChapter A 101.20(1)  
 30 TAC Chapter 115, SubChapter D 115.352(4)  
 30 TAC Chapter 116, SubChapter B 116.115(c)(1)  
 30 TAC Chapter 122, SubChapter B 122.143(4)

1973

The first part of the report deals with the general situation in the country. It is noted that the economy is still in a state of stagnation, and that the government has failed to implement the necessary reforms. The report also mentions the political situation, which is described as unstable and chaotic. The author expresses concern over the future of the country and the well-being of its people.

In the second part, the author discusses the social and cultural aspects of the country. It is noted that there is a high level of illiteracy and a lack of access to education. The report also mentions the prevalence of poverty and the need for social reforms. The author calls for a more equitable distribution of resources and a focus on improving the quality of life for all citizens.

The third part of the report deals with the international situation. It is noted that the country is facing increasing international isolation and that its interests are being ignored by the major powers. The author calls for a more active role in international affairs and for the establishment of a new international order based on justice and equality.

In conclusion, the report expresses a pessimistic outlook for the future of the country. It calls for a complete overhaul of the political, economic, and social systems. The author urges the government to take immediate action to address the pressing issues facing the country and to ensure the long-term stability and prosperity of the nation.

1974

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5C THC Chapter 382, SubChapter A 382.085(b)  
 Rqmt Prov: FOP O-01310, SC 10 OP  
 FOP O-01310, SC 1A OP  
 Permit 4140A, SC 4E PERMIT  
 Description: Failed to install a second valve, a blind flange or a tightly-fitting plug or cap on 31 open ended lines.  
 Classification: Moderate  
 Citation: 30 TAC Chapter 101, SubChapter A 101.20(1)  
 30 TAC Chapter 116, SubChapter B 116.115(c)(1)  
 30 TAC Chapter 122, SubChapter B 122.143(4)  
 40 CFR Chapter 60, SubChapter C, PT 60, SubPT A 60.18(c)(2)  
 5C THC Chapter 382, SubChapter A 382.085(b)  
 Rqmt Prov: FOP O-01310, SC 10 OP  
 FOP O-01310, SC 1A OP  
 Permit 4140A, SC 6 PERMIT  
 Description: Failed to maintain a pilot flame during flare operation. Specifically, failed to maintain a pilot flame while Flare 47 was being operated on eleven occasions during the period May 11, 2004 to August 30, 2004.  
 Classification: Moderate  
 Citation: 30 TAC Chapter 101, SubChapter A 101.20(1)  
 30 TAC Chapter 122, SubChapter B 122.143(4)  
 30 TAC Chapter 122, SubChapter B 122.145(2)(A)  
 30 TAC Chapter 122, SubChapter B 122.145(2)(C)  
 40 CFR Chapter 60, SubChapter C, PT 60, SubPT DDD 60.565(k)(4)  
 5C THC Chapter 382, SubChapter A 382.085(b)  
 Rqmt Prov: Special Condition 1A OP  
 Description: Failure to submit a timely deviation report. Specifically, failed to report deviations for the reporting period April 10, 2004 to September 30, 2004 within 30 days.  
 Classification: Moderate  
 Citation: 30 TAC Chapter 101, SubChapter A 101.20(1)  
 30 TAC Chapter 122, SubChapter B 122.143(4)  
 40 CFR Chapter 60, SubChapter C, PT 60, SubPT VV 60.482-7(a)  
 5C THC Chapter 382, SubChapter A 382.085(b)  
 Rqmt Prov: FOP O-01310, SC 1A OP  
 Description: Failed to conduct fugitive monitoring. Specifically, failed to monitor 28 valves monthly.

B. Any criminal convictions of the state of Texas and the federal government.

N/A

C. Chronic excessive emissions events.

N/A

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

|    |            |          |
|----|------------|----------|
| 1  | 08/21/2006 | (520132) |
| 2  | 01/07/2003 | (19939)  |
| 3  | 05/27/2004 | (268050) |
| 4  | 06/23/2006 | (483857) |
| 5  | 01/07/2003 | (18458)  |
| 6  | 04/18/2005 | (419636) |
| 7  | 05/21/2003 | (37924)  |
| 8  | 05/24/2006 | (465267) |
| 9  | 05/20/2005 | (419637) |
| 10 | 02/18/2004 | (295187) |
| 11 | 06/20/2005 | (419638) |
| 12 | 03/11/2005 | (347803) |
| 13 | 04/18/2005 | (419639) |
| 14 | 10/13/2004 | (334872) |
| 15 | 03/19/2004 | (295189) |
| 16 | 08/22/2005 | (440771) |
| 17 | 09/16/2005 | (440772) |
| 18 | 10/21/2005 | (440773) |
| 19 | 02/22/2001 | (157635) |
| 20 | 10/21/2005 | (440774) |
| 21 | 04/21/2004 | (295190) |
| 22 | 05/17/2005 | (376383) |
| 23 | 02/19/2002 | (157636) |
| 24 | 02/20/2003 | (157637) |



|    |            |          |
|----|------------|----------|
| 25 | 12/05/2005 | (434578) |
| 26 | 03/19/2001 | (157638) |
| 27 | 05/21/2004 | (295192) |
| 28 | 03/15/2002 | (157639) |
| 29 | 03/19/2003 | (157640) |
| 30 | 12/15/2006 | (533428) |
| 31 | 07/21/2006 | (480959) |
| 32 | 06/21/2004 | (295194) |
| 33 | 04/16/2001 | (157643) |
| 34 | 03/31/2002 | (157644) |
| 35 | 08/21/2003 | (147570) |
| 36 | 08/18/2004 | (351994) |
| 37 | 04/23/2003 | (157645) |
| 38 | 04/21/2004 | (295196) |
| 39 | 09/21/2004 | (351995) |
| 40 | 08/19/2003 | (295198) |
| 41 | 05/23/2001 | (157647) |
| 42 | 05/22/2002 | (157648) |
| 43 | 05/22/2003 | (157649) |
| 44 | 09/19/2003 | (295200) |
| 45 | 10/19/2004 | (351996) |
| 46 | 06/21/2001 | (157651) |
| 47 | 04/26/2006 | (498121) |
| 48 | 06/24/2002 | (157652) |
| 49 | 02/22/2005 | (381806) |
| 50 | 05/23/2006 | (498122) |
| 51 | 11/23/2004 | (351997) |
| 52 | 06/23/2003 | (157653) |
| 53 | 03/22/2005 | (381807) |
| 54 | 06/22/2006 | (498123) |
| 55 | 04/28/2004 | (264091) |
| 56 | 12/20/2004 | (381808) |
| 57 | 07/18/2006 | (498124) |
| 58 | 07/20/2001 | (157655) |
| 59 | 01/25/2005 | (342331) |
| 60 | 07/22/2002 | (157656) |
| 61 | 10/20/2003 | (295202) |
| 62 | 07/07/2003 | (157657) |
| 63 | 10/19/2004 | (351998) |
| 64 | 03/08/2005 | (350824) |
| 65 | 08/21/2001 | (157659) |
| 66 | 11/21/2003 | (295203) |
| 67 | 08/16/2002 | (157660) |
| 68 | 09/25/2000 | (157661) |
| 69 | 02/05/2004 | (295204) |
| 70 | 09/20/2001 | (157662) |
| 71 | 02/22/2006 | (468325) |
| 72 | 01/20/2004 | (295205) |
| 73 | 09/20/2002 | (157663) |
| 74 | 03/22/2006 | (468326) |
| 75 | 10/23/2000 | (157664) |
| 76 | 01/07/2003 | (20071)  |
| 77 | 11/22/2005 | (468327) |
| 78 | 11/20/2006 | (514665) |
| 79 | 11/01/2001 | (157665) |
| 80 | 12/21/2005 | (468328) |
| 81 | 10/21/2002 | (157666) |
| 82 | 07/27/2001 | (39476)  |
| 83 | 07/26/2005 | (394337) |
| 84 | 11/17/2000 | (157668) |
| 85 | 11/19/2001 | (157669) |
| 86 | 06/25/2002 | (90473)  |
| 87 | 11/18/2002 | (157670) |
| 88 | 05/03/2002 | (90472)  |
| 89 | 01/11/2002 | (90471)  |
| 90 | 01/03/2002 | (90470)  |
| 91 | 12/14/2001 | (90469)  |
| 92 | 12/11/2001 | (90468)  |



93 12/12/2000 (157672)  
 94 10/26/2001 (90467)  
 95 12/21/2001 (157673)  
 96 06/29/2006 (464688)  
 97 10/04/2001 (90466)  
 98 08/29/2001 (90465)  
 99 12/17/2002 (157674)  
 100 08/29/2001 (90464)  
 101 05/17/2001 (90463)  
 102 06/10/2004 (273967)  
 103 03/08/2001 (90462)  
 104 01/23/2001 (157676)  
 105 01/11/2001 (90461)  
 106 11/15/2000 (90460)  
 107 01/23/2002 (157677)  
 108 11/09/2000 (90459)  
 109 10/12/2000 (90458)  
 110 01/17/2003 (157678)  
 111 09/21/2006 (488834)

E. Written notices of violations (NOV). (CCEDS Inv. Track. No.)

Date: 12/31/2005 (440774)  
 Self Report? YES Classification: Moderate  
 Citation: 30 TAC Chapter 305, SubChapter F 305.125(1)  
 TWC Chapter 26 26.121(a)[G]  
 Description: Failure to meet the limit for one or more permit parameter  
 Date: 06/30/2006 (464688)  
 Self Report? NO Classification: Moderate  
 Citation: 30 TAC Chapter 101, SubChapter A 101.20(1)  
 30 TAC Chapter 115, SubChapter D 115.352(4)  
 30 TAC Chapter 116, SubChapter B 116.115(c)(1)  
 30 TAC Chapter 122, SubChapter B 122.143(4)  
 40 CFR Chapter 60, SubChapter C, PT 60, SubPT VV 60.482-6(a)(1)  
 5C THC Chapter 382, SubChapter A 382.085(b)  
 Rqmt Prov: OP IA  
 PERMIT IA  
 Description: Failure to install a cap cap/plug on an open-ended line or valve.  
 Self Report? NO Classification: Moderate  
 Citation: 30 TAC Chapter 101, SubChapter A 101.20(1)  
 30 TAC Chapter 116, SubChapter B 116.115(c)(1)  
 30 TAC Chapter 122, SubChapter B 122.143(4)  
 40 CFR Chapter 60, SubChapter C, PT 60, SubPT A 60.18(c)(3)(ii)  
 40 CFR Chapter 60, SubChapter C, PT 60, SubPT DDD 60.562-1(a)(1)(i)(C)  
 40 CFR Chapter 60, SubChapter C, PT 60, SubPT VV 60.482-10(d)  
 5C THC Chapter 382, SubChapter D 382.085(b)  
 Rqmt Prov: OP IA  
 PERMIT IA  
 Description: Failure to maintain the net heating value of the gas being combusted in flare FL58  
 at 11.2 MJ/scm  
 (300 Btu/scf) or greater.  
 Date: 01/11/2005 (350824)  
 Self Report? NO Classification: Moderate  
 Rqmt Prov: PERMIT IA  
 Description: Failure to discharge wastewater generated by hydroblasting through a permitted  
 outfall.  
 Date: 06/30/2005 (419639)  
 Self Report? YES Classification: Moderate  
 Citation: 30 TAC Chapter 305, SubChapter F 305.125(1)  
 TWC Chapter 26 26.121(a)[G]  
 Description: Failure to meet the limit for one or more permit parameter



Date: 09/30/2002 (157666)  
 Self Report? YES Classification: Moderate  
 Citation: 30 TAC Chapter 305, SubChapter F 305.125(1)  
 TWC Chapter 26 26.121(a)[G]  
 Description: Failure to meet the limit for one or more permit parameter  
 Date: 03/24/2005 (376383)  
 Self Report? NO Classification: Minor  
 Citation: 30 TAC Chapter 290, SubChapter D 290.42(e)(5)  
 Description: Failure to replace the vent screen on the bleach container.

F. Environmental audits.

Notice of Intent Date: 10/18/2000 (35638)  
 Disclosure Date: 05/08/2001

Viol. Classification: Moderate  
 Citation: 30 TAC Chapter 116, SubChapter B 116.110(a)(4)  
 40 CFR Chapter 265, SubChapter I, PT 265, SubPT  
 I 265.173(a)  
 30 TAC Chapter 335, SubChapter E 335.112(a)(8)

Description: Spent catalyst was temporarily placed in open drums. The spent catalyst included residual amounts of isobutane, which is classified as a hazardous waste. The drums were not sealed properly.  
 Viol. Classification: Minor

Req Prpv: PERMITCond No 1  
 PERMITCond No 2  
 PERMITCond No 4

Description: Failure to average backup monitoring data for flow, pH, and temperature with primary monitoring equipment data.  
 Viol. Classification: Major  
 Citation: TWC Chapter 26 26.121(a)[G]

Description: A concrete wall with small drain pipes at railroad tracks constitutes an area of industrial activity that requires storm water discharge authorization.

Notice of Intent Date: 04/19/2006 (464641)  
 Disclosure Date: 07/18/2006

Viol. Classification: Moderate  
 Citation: 40 CFR Chapter 60, SubChapter C, PT 60, SubPT  
 VV 60.482-10(f)(1)(ii)  
 40 CFR Chapter 60, SubChapter C, PT 60, SubPT  
 VV 60.482-10(f)(5)

Description: Failure to maintain records of audio, visual and olfactory (AVO) inspections of closed vent systems beyond the process operating units of the flare.

G. Type of environmental management systems (EMSs).

N/A

H. Voluntary on-site compliance assessment dates.

N/A

I. Participation in a voluntary pollution reduction program.

| Type                | Tier        | Certification Date |
|---------------------|-------------|--------------------|
| CLEAN TEXAS PROGRAM | PARTNERSHIP | 11/26/2002         |
| CLEAN TEXAS PROGRAM | PARTNER     | 11/26/2002         |

J. Early compliance.

N/A

Sites Outside of Texas

N/A

