

**PART I.****SECTION A. PERMIT APPLICABILITY AND COVERAGE CONDITIONS****1. DISCHARGES COVERED**

This permit regulates discharges from existing source and New Source oil and gas wells in the Coastal Subcategory of the Oil and Gas Extraction Point Source Category (40 CFR 435, Subpart D) in Texas. In addition, this permit authorizes discharges, including produced water, from Stripper Subcategory (40 CFR 435, Subpart F) wells to waters of Texas. This permit prohibits the discharge of Offshore Subcategory produced water to those coastal waters.

**2. NOTICE OF INTENT (NOI) TO BE COVERED**

Operators desiring authorization to discharge under this general NPDES permit must submit a Notice of Intent (NOI) to be covered. Facilities located in the same lease block (or state tract) may be filed under one NOI. A facility means any structure used for oil or gas extraction purpose (i.e., exploratory, development, and/or production activity) and meets NPDES “point source” or any structure or activity that is subject to regulation under the NPDES program. Facilities which do not discharge are not required to file an NOI for coverage and consequently are not covered by this permit.

“Operator” - for the purpose of this permit and only in the context of discharges associated with oil and gas exploration, development, and production activities regulated by this permit, means any party that meets any of the following three criteria:

- a. The party possesses the lease for the block where the exploration, development, or production activity will take place and has operational control over exploration, development, or production activities, including the ability to hire or fire contactors who conduct the actual work that results in discharges regulated by the permit; or
- b. The party has day-to-day operational control of those activities at an exploration, development, or production project which are necessary to ensure compliance with permit; or
- c. The party has operational control over a vessel or other mobile facility with cooling water intake structures subject to CWA 316(b).

A separate NOI is required for each lease block and that NOI shall include all discharges controlled by the operator within the block. EPA may deny an NOI within 45 days after the filing. All NOIs shall include, but not limited to, the following information:

- a) the legal names and contact information of the lessee or designated operator registered with the state of Texas;
- b) the legal name and contact information of the operator who files the eNOI;
- c) the permit number (if any) previously assigned to the operator;

- d) the lease block (including state tract) code and number assigned by the State ;
- e) the name and/or identification and location including geographic coordinates (latitude and longitude) of each facility operated by the operator;
- f) the types of discharges, estimated volumes, associated sources (facilities or wells) under the control of the operator, and the name of receiving water;
- g) expected/actual drill/discharge commence date and well locations;
- h) for facilities for which construction was commenced after July 17, 2006: design intake capacity (million gallons per day) of each cooling water intake structure (CWIS), the maximum designed intake through-screen velocity (feet per second) of each CWIS, and the percentage (%) of total intake water used for cooling purpose; and
- i) whether the NOI is being submitted to transfer coverage due to a merger or acquisition and if so, the identification of the affected parties, timing of the transfer of operational control, and confirmation that notice had been submitted to EPA;

For operators that determine they have a discharge to an impaired water (e.g., via <http://www.epa.gov/waters/ir/index.html>), the permit requires that the permittee provide the following supplemental information on the NOI:

- j) a list of all impaired waters in the lease block for which the NOI is submitted;
- k) the pollutant(s) for which the water is impaired;
- l) whether a TMDL has been approved or established by EPA for that pollutant; and
- m) if so, the title or reference of the TMDL document.

For facilities covered under the the 2007 permit, a new NOI must be submitted within 90 days of the effective date of this permit for continued coverage under this permit. For leases obtained subsequent to the effective date of this permit, or for which the operator did not have coverage under the 2007 permit, the NOI must be submitted prior to the commencement of any discharge.

If an owner or operator who operates under the 2007 permit does not file the NOI within 90 days from the permit effective date, that owner or operator is not authorized to discharge under this new permit and is required to file a new NOI before discharges will be authorized.

The EPA will accept late NOIs, but authorization to discharge will not begin until submittal of a complete NOI.

After submission of the NOI, operators requesting coverage are authorized to discharge under this general permit. However, EPA has up to 45 days to deny coverage for new NOIs.

Should this permit not be reissued prior to the expiration date, it will be administratively continued in accordance with the Administrative Procedure Act and remain in force and effect for discharges that were covered prior to expiration. Permittees granted permit coverage prior to the expiration date remain automatically covered by this permit until the earliest of:

- Submittal of a Notice of Termination; or
- Issuance or denial of an individual permit for the discharges; or

- A final permit decision by EPA not to reissue this general permit, at which time EPA will identify a reasonable time period for covered dischargers to seek coverage under an alternative general permit or an individual permit. Coverage under this permit will terminate at the end of this time period.

During the any administrative continuance period, existing coverage may be transferred in accordance with item 4(b) below during any administratively continued period of the permit, but NOIs for new coverage cannot be accepted.

All notices of intent to be covered and any subsequent reports shall be sent to the following address:

Water Enforcement Branch (6EN-WC)  
U.S. Environmental Protection Agency  
Region 6  
1445 Ross Avenue  
Dallas, TX 75202

### 3. TERMINATION OF PERMIT COVERAGE BY A PERMITTEE

Permittees shall notify EPA, by submission of a Notice of Termination (NOT), within 60 days after the permanent termination of discharges from a facility. NOTs shall be submitted to the same address as NOIs.

### 4. TRANSFERS DUE TO MERGER AND/OR ACQUISITION

Owner/operators who are involved in merger or acquisition shall transfer coverage in the following manner during the term of this permit, including any administrative continuance should the permit not be reissued prior to expiration.

- a) During the initial term of permit: New operator shall submit NOI prior to taking operational control and old operator shall submit NOT within 60 days of terminating operational control.
- b) During any 'administratively continued' term of the permit following the indicated expiration date: New operator shall submit NOI to transfer coverage at least 30 days prior to taking operational control and old operator shall submit NOT within 60 days of terminating operational control. The new operator shall submit a written agreement between the new and old permittees concerning the date of the transfer of permit responsibility, coverage, and liability between themselves.

**SECTION B-1. GENERAL PERMIT LIMITS FOR COASTAL SUBCATEGORY**

Permittees shall not discharge nor shall they cause or allow the discharge of pollutants regulated under this permit except in compliance with its limitations and terms. Permittees of facilities generating pollutants regulated under this permit shall take reasonable positive steps to assure pollutants are not unlawfully discharged to waters of the United States by third parties and shall maintain documentation of those steps for no less than three years.

Effluent limitations of this permit include (See also the limitations summary in subsection 12.)

1. DRILLING FLUID - No discharge.
2. DRILL CUTTINGS - No Discharge.
3. PRODUCED WATER – No Discharge.
4. PRODUCED SAND - No Discharge.
5. DEWATERING EFFLUENT - No Discharge.
6. DECK DRAINAGE - No Discharge of free oil, as determined by the presence of a film or sheen upon or a discoloration of the surface of the receiving water (visual sheen).

Monitoring shall be once per day, when discharging, during conditions when an observation of a sheen is possible and when the facility is manned. The number of days a sheen is detected must be recorded. Corrective actions must be taken and recorded when a sheen is observed.

7. FORMATION TEST FLUIDS - No Discharge, except to bays and estuaries where no chloride standards have been established.

Where discharges are allowed, the limits are:

No free oil as determined by the static sheen test. Monitoring shall be once per day.

pH ranges from 6.0 to 9.0 Standard Units. A grab sample must be taken once per discharge event.

8. WELL TREATMENT, COMPLETION AND WORKOVER FLUIDS - No Discharge
9. DOMESTIC WASTE - No discharge of floating solids or garbage or foam.
10. SANITARY WASTE -

No floating solids

BOD5 - 45 mg/l daily maximum. Monitoring shall be once per week using grab samples.

TSS - 45 mg/l daily maximum. Monitoring shall be once per week using grab samples.

Enterococci - 35 cfu (or MPN) per 100 ml daily average (geometric mean) and 104 per 100 ml daily maximum. Monitoring shall be once per week using grab samples. OR,

Enterococci - 35 cfu (or MPN) per 100 ml daily maximum. Monitoring shall be once per week using grab samples. (Applied to bacteria-impaired water only) OR,

Fecal Coliform - 14 cfu (or MPN) per 100 ml daily maximum. Monitoring shall be once per week using grab samples. (Applied to bacteria-impaired oyster water only)

Note: Total residual chlorine be maintained as close to 1 mg/l as possible for facilities continuously manned by ten or more persons.

11. MISCELLANEOUS DISCHARGES -  
Distillation and reverse osmosis brine  
Blowout preventer fluid  
Uncontaminated ballast and bilge water  
Mud, cuttings and cement at the sea floor  
Boiler blowdown  
Excess cement slurry  
Diatomaceous earth filter media  
Uncontaminated water

For miscellaneous discharges, the discharge of free oil is prohibited as determined by a visual sheen on the surface of the receiving water. Discharge is authorized only at times when visual sheen observation is possible. Discharge may occur at any time if the operator uses the static sheen method for detecting free oil. Monitoring shall be once per day, when discharging.

## 12. OTHER DISCHARGE CONDITIONS

- a. Prohibitions: Halogenated Phenol Compounds - There shall be no discharge of Halogenated Phenol Compounds.
- Rubbish, Trash and Other Refuse - The discharge of any solid material not authorized in the permit (as described above) is prohibited.
- b. Limitations: Floating Solids or Visible Foam - There shall be no discharge of floating

solids or visible foam in other than trace amounts.

Surfactants, Dispersants and Detergents - The discharge of surfactants, dispersants, and detergents used to wash working areas shall be minimized except as necessary to comply with applicable State and Federal safety requirements.

**13. TABLE - SUMMARY OF EFFLUENT LIMITATIONS, PROHIBITIONS AND MONITORING REQUIREMENTS FOR COASTAL SUBCATEGORY**

Discharge	Regulated & Monitored Discharged Parameter	Discharge Limitation/ Prohibition	Measurement Frequency	Sample Type/Method
Drilling Fluid		No Discharge		
Drill Cuttings		No Discharge		
Produced Water		No Discharge		
Deck Drainage	Free Oil	No Free Oil – report number of days sheen observed	Once/day(*1)	Visual Sheen
Formation Test Fluid (*2)	Free Oil	No Free Oil – report number of days sheen observed	Once/day(*1)	Visual Sheen
	pH	6.5-9.0 s.u	Once/discharge	Grab
Well treatment fluids, completion fluids, and workover fluids		No Discharge		
Domestic Waste	Ffloating solids or garbage or foam	No discharge		
Sanitary waste	Residual chlorine(*3)	1 mg/l (minimum)	Once/month	Grab
	Solids	No Floating Solids	Once/day	Observation.....
	BOD5	45 mg/l, Daily max.	Once/week	Grab
	TSS	45 mg/l, Daily max.	Once/week	Grab
	Enterococci (Only for discharges to non-bacteria impaired waterbodies)	104 cfu or MPN per 100 ml - Daily Max. 35 cfu or MPN per 100 ml – Daily Avg.	Once/week	Grab
	Enterococci (Only for discharges to bacteria impaired waterbodies)	35 cfu or MPN per 100 ml – Daily Max.	Once/week	Grab
	Fecal coliform (Only for discharges to bacteria impaired oyster waterbodies )	14 cfu or MPN per 100 ml - Daily Max.	Once/week	Grab
Miscellaneous discharges	Free oil	No free oil. Report number of days sheen observed	Once/day (*1)	Visual sheen or static sheen

Footnotes

- \*1 When discharging and facility is manned. Monitoring shall be accomplished during times when observation of a visual sheen on the surface of the receiving water is possible in the vicinity of the discharge.

- \*2 Formation test fluids may only discharge to bays or estuaries where no chloride standards have been established.
- \*3 Total residual chlorine limit only applies to a facility continually manned with 10 or more person. Minimum of 1 mg/l and maintained as close to this concentration as possible.

#### 14. REQUIRING AN INDIVIDUAL PERMIT OR ADDITIONAL LIMITATIONS

A permittee who discharges to impaired waters may be informed if coverage under an individual permit is necessary in accordance with new information available.

**SECTION B-2. GENERAL PERMIT LIMITS FOR STRIPPER SUBCATEGORY**

Permittees shall not discharge nor shall they cause or allow the discharge of pollutants regulated under this permit except in compliance with its limitations and terms. Permittees of facilities generating pollutants regulated under this permit shall take reasonable positive steps to assure pollutants are not unlawfully discharged to waters of the United States by third parties and shall maintain documentation of those steps for no less than three years.

Effluent limitations of this permit include (See also the limitations summary in Table 1):

1. DRILLING FLUID - No discharge.
2. DRILL CUTTINGS - No Discharge.
3. PRODUCED WATER

(A) Produced water from existing stripper facilities in the Stripper Subcategory located east of the 98<sup>th</sup> meridian whose produced water comes from the Carrizo/Wilcox, Reklaw or Bartosh formations in Texas and whose produced water does not exceed 3000 mg/l total dissolved solids may discharge produced water subject to the following limits and conditions.

- (1) Monitor flow once per month and report an estimate of the flow in MGD (million gallons per day).
- (2) Monitor total dissolved solids once per year and report as the daily maximum (mg/l). The sample type may be either grab, or a 24-hour composite consisting of the arithmetic average of the results of 4 grab samples taken over a 24-hour period. Discharges of produced water are not authorized if the daily maximum total dissolved solids exceed 3000 mg/l.
- (3) Oil and grease shall not exceed 25 mg/l monthly average and 35 mg/l daily maximum. Monitor oil and grease once per month by grab sample.
- (4) An acute toxicity test at the 100% of critical dilution shall be performed once per year as described below:
  - a. For Existing Facilities Discharge To Coastal Waters: The existing stripper well facility must conduct the first 24-hour acute toxicity test (see Section C-1 below for details) within 60 days from the effective date of permit coverage for each existing produced water discharge outfall to the coastal water. If a facility collects produced waters from varied wells and disposes the combined waste at one outfall, only one toxicity test is required. Discharges of produced water are not authorized if the facility either fails to conduct the test or fails the test result. After the failure of the toxicity test, the discharge of produced water can only be resumed after it passes two confirmation tests.



- b. For Existing Facilities Discharge To Freshwaters: The existing stripper well facility must conduct the first 48-hour acute toxicity test (see Section C-2 below for details) within 60 days from the effective date of permit coverage for each existing produced water discharge outfall. If a facility collects produced waters from varied wells and disposes the combined waste at one outfall, only one toxicity test is required. Discharges of produced water are not authorized if the facility either fails to conduct the test or fails the test result. After the failure of the toxicity test, the discharge of produced water can only be resumed after it passes two confirmation tests.
- c. For New Facilities Discharge To Freshwaters: New stripper wells must pass the 48-hour toxicity test (see Section C-2 below for details) prior to discharging produced waters. For the purposes of this limitation, a new stripper well is one that either did not meet the definition of a stripper well until after the effective date of this permit or has not discharged produced water prior to the effective date of this permit.
- d. The sample type for 24-hour or 48-hour acute toxicity tests may be either grab, or a 24-hour composite consisting of the arithmetic average of the results of 4 grab samples taken over a 24-hour period.
- e. For produced water discharged to impaired waters, additional conditions are established below.
- (1) For authorized discharges to an impaired waterbody that is impaired for zinc, the produced water discharges must also be monitored once per month for total zinc. The sample type for above tests may be either grab, or a 24-hour composite consisting of the arithmetic average of the results of 4 grab samples taken over a 24-hour period. The analytical method used for zinc analyses must be sufficiently sensitive to detect 20 µg/l or below.
  - (2) For authorized discharges to an impaired waterbody that is impaired for mercury, the produced water discharges must also be monitored once per month for total mercury. The sample type for above tests may be either grab, or a 24-hour composite consisting of the arithmetic average of the results of 4 grab samples taken over a 24-hour period. The analytical method used for mercury analyses must be sufficiently sensitive to detect 0.005 µg/l or below.
  - (3) For authorized discharges to an impaired waterbody that is impaired for metals other than mercury or zinc, the produced water discharges must also be monitored once per month for that (those) metal(s). The sample type for above tests may be either grab, or a 24-hour composite consisting of the arithmetic average of the results of 4 grab samples taken over a 24-hour period.
  - (4) New stripper wells are prohibited from discharging produced waters to an impaired waterbody that is impaired for dissolved oxygen. For the purposes of this limitation, a new stripper well is one that either did not meet the definition of

a stripper well until after the effective date of this permit or has not discharged produced water prior to the effective date of this permit.

(B) Produced waters from facilities that do not meet the requirements established under this subsection B-2.3 are not authorized for discharge.

4. PRODUCED SAND - No Discharge.
5. DEWATERING EFFLUENT - No Discharge.
6. DECK DRAINAGE - No Discharge of free oil, as determined by the presence of a film or sheen upon or a discoloration of the surface of the receiving water (visual sheen).

Monitoring shall be once per day, when discharging, during conditions when an observation of a sheen is possible and when the facility is manned. The number of days a sheen is detected must be recorded. Corrective actions must be taken and recorded when a sheen is observed.

7. FORMATION TEST FLUIDS - No Discharge, except to bays and estuaries where no chloride standards have been established.

Where discharges are allowed, the limits are:

No free oil as determined by the static sheen test. Monitoring shall be once per day.

pH ranges from 6.0 to 9.0 Standard Units. A grab sample must be taken once per discharge event.

8. WELL TREATMENT, COMPLETION AND WORKOVER FLUIDS - No Discharge
9. DOMESTIC WASTE - No discharge of floating solids or garbage or foam.
10. SANITARY WASTE -

No floating solids

BOD5 - 45 mg/l daily maximum. Monitoring shall be once per week using grab samples.

TSS - 45 mg/l daily maximum. Monitoring shall be once per week using grab samples.

Enterococci – 35 cfu or MPN per 100 ml daily average, and 104 cfu or MPN per 100 ml daily maximum. Monitoring shall be once per week using grab samples. (Applied to coastal waters)

Enterococci – 35 cfu or MPN per 100 ml daily maximum. Monitoring shall be once per week using grab samples. (Applied to bacteria-impaired coastal waters)

E. coli – 126 cfu or MPN per 100 ml daily average, and 399 cfu or MPN per 100 ml daily maximum. Monitoring shall be once per week using grab samples. (Applied to fresh waters)

Fecal Coliform - 14 per 100 ml daily maximum. Monitoring shall be once per week using grab samples. (Applied to bacteria-impaired oyster water)

Note: Total residual chlorine be maintained as close to 1 mg/l as possible for facilities continuously manned by ten or more persons.

#### 11. MISCELLANEOUS DISCHARGES -

Distillation and reverse osmosis brine  
Blowout preventer fluid  
Uncontaminated ballast and bilge water  
Mud, cuttings and cement at the sea floor  
Boiler blowdown  
Excess cement slurry  
Diatomaceous earth filter media  
Uncontaminated water

For miscellaneous discharges, the discharge of free oil is prohibited as determined by a visual sheen on the surface of the receiving water. Discharge is authorized only at times when visual sheen observation is possible. Discharge may occur at any time if the operator uses the static sheen method for detecting free oil. Monitoring shall be once per day, when discharging.

#### 12. OTHER DISCHARGE CONDITIONS

- a. Prohibitions:
- Halogenated Phenol Compounds - There shall be no discharge of Halogenated Phenol Compounds.
  - Rubbish, Trash and Other Refuse - The discharge of any solid material not authorized in the permit (as described above) is prohibited.
- b. Limitations:
- Floating Solids or Visible Foam - There shall be no discharge of floating solids or visible foam in other than trace amounts.
  - Surfactants, Dispersants and Detergents - The discharge of surfactants, dispersants, and detergents used to wash working areas shall be minimized except as necessary to comply with applicable State and Federal safety requirements.

13. TABLE - SUMMARY OF EFFLUENT LIMITATIONS, PROHIBITIONS AND MONITORING REQUIREMENTS FOR STRIPPER SUBCATEGORY

Discharge	Regulated & Monitored Discharged Parameter	Discharge Limitation/ Prohibition	Measurement Frequency	Sample Type/Method
Drilling Fluid		No Discharge		
Drill Cuttings		No Discharge		
Produced Water (Stripper Subcategory) (*4)	Oil and grease	35 mg/l daily max., 25 mg/l monthly average	Once/month	Grab
	Total Dissolved Solids	Monitor & Report. No discharge if TDS > 3000 mg/l	Once/year	Grab or 24-hr composite
	Acute Toxicity	24-hour LC50 at 100% effluent for discharging to coastal waters; OR 48-hour LC50 at 100% effluent for discharging to fresh waters. No discharge if fail to conduct test or fail test.	Once/year	Grab or 24-hr composite
	Flow	Report	Once/month	Estimate
	Total Zinc (Only for Discharges to Zinc Impaired Waterbodies )	Report	Once/month	Grab or 24-hr composite
	Total Mercury (Only for discharges to mercury impaired waterbodies )	Report	Once/month	Grab or 24-hr composite
	Only for Discharges to dissolved oxygen impaired waterbodies	No Discharge		
Deck Drainage	Free Oil	No Free Oil – report number of days sheen observed	Once/day(*1)	Visual Sheen
Formation Test Fluid (*2)	Free Oil	No Free Oil – report number of days sheen observed	Once/day(*1)	Visual Sheen
	pH	6.5-9.0 s.u	Once/discharge	Grab
Well treatment fluids, completion fluids, and workover fluids		No Discharge		
Domestic Waste (Discharges to coastal waters)	Floating solids or garbage or foam	No discharge		
Sanitary waste and/or Domestic waste for discharges to freshwater	Residual chlorine(*3)	1 mg/l (minimum)	Once/month	Grab
	Solids	No Floating Solids	Once/day	Observation.....
	BOD5	45 mg/l, Daily max.	Once/week	Grab
	TSS	45 mg/l, Daily max.	Once/week	Grab
	Enterococci (Only for discharges to non-bacteria impaired coastal waterbodies)	104 cfu or MPN per 100 ml - Daily Max. 35 cfu or MPN per 100 ml – Daily Avg	Once/week	Grab
	Enterococci (Only for	35 cfu or MPN per 100	Once/week	Grab

	discharges to bacteria impaired coastal waterbodies)	ml - Daily Max.		
	E. coli (Only for discharges to fresh waterbodies )	35 colonies/ 100 ml, Daily max.	Once/week	Grab
	Fecal coliform (Only for discharges to bacteria (oyster) impaired waterbodies )	14 colonies/ 100 ml, Daily max.	Once/week	Grab
Miscellaneous discharges	Free oil	No free oil. Report number of days sheen observed	Once/day (*1)	Visual sheen or static sheen

### Footnotes

- \*1 When discharging and facility is manned. Monitoring shall be accomplished during times when observation of a visual sheen on the surface of the receiving water is possible in the vicinity of the discharge.
- \*2 Formation test fluids may only discharge to bays or estuaries where no chloride standards have been established.
- \*3 Total residual chlorine limit only applies to a facility continually manned with 10 or more person. Minimum of 1 mg/l and maintained as close to this concentration as possible.
- \*4 Facilities that do not meet the requirements of Section B-2.3 are prohibited from discharging produced water.

#### 14. REQUIRING AN INDIVIDUAL PERMIT OR ADDITIONAL LIMITATIONS

A permittee who discharges to impaired waters may be informed if coverage under an individual permit is necessary in accordance with new information available.

**SECTION C-1. 24-HOUR ACUTE TOXICITY TESTING REQUIREMENTS (24-HOUR ACUTE LC-50 MARINE LIMITS)**

The approved test methods for permit compliance are identified in 40 CFR Part 136.

**SCOPE, FREQUENCY AND METHODOLOGY**

- a) The permittee shall utilize the Mysidopsis bahia (Mysid shrimp) acute static nonrenewal 24-hour toxicity test 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. A minimum of five (5) replicates with eight (8) organisms per replicate must be used in the control and in each effluent dilution of this test.
- b) The permittee shall utilize the Menidia beryllina (Inland Silverside minnow) acute static nonrenewal 24-hour definitive toxicity test 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. A minimum of five (5) replicates with eight (8) organisms per replicate must be used in the control and in each effluent dilution of this test.
- c) If any other test conducted under biomonitoring requirements elsewhere in this permit includes the 100% effluent concentration in the dilution series, the mean survival results at 24 hours from that test, for each species, may be submitted to fulfill the requirements of this section. See Reporting of this section for acceptable test substitutions. 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 for compliance with the minimum testing frequency.
- d) The permittee shall test the effluent for lethality in accordance with the provisions of this section. Such testing will determine if an effluent sample meets the Texas Surface Water Quality Standard listed at 30 TAC §307.6(e)(2)(B) of greater than 50% survival of the appropriate test organisms in 100% effluent for a 24-hour period.
- e) The permittee shall submit the results of these tests on the Discharge Monitoring Report (DMR) due at the end of the reporting period.
- f) In addition to an appropriate control (0% effluent), a 100% effluent concentration shall be used in the toxicity tests.
- g) This permit may be reopened to require whole effluent toxicity limits, chemical specific effluent limits, additional testing, and/or other appropriate actions to address toxicity.

**CONTROL/DILUTION WATER**

Control and/or dilution water used in the test shall normally consist of a standard, synthetic,

reconstituted seawater. If the permittee is utilizing the results of a 48-hour acute test to satisfy these 24-hour acute biomonitoring requirements in accordance with Item c above, the permittee may use receiving water as the control and dilution water if the control meets the requirements of subsection Control Survival below.

#### Control Survival

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

#### Repeat Test

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

#### Samples

The samples shall be collected at a point following the last treatment unit.

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

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

#### REPORTING

a) The permittee shall prepare a full report of the results of all tests conducted pursuant to this Part in accordance with the Report Preparation section of EPA-821-R-02-012, or the most recent update thereof: for every valid or invalid toxicity test initiated, whether carried to completion or not. The permittee shall retain each full report pursuant to the provisions of PART II.D.4 of this permit. A copy of the full report for any test failure must be submitted to EPA within 30 (thirty) days of receipt from the lab that performed the test. The permittee shall submit the information contained in any full report upon the specific request of the Environmental Protection Agency.

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

- i. Menidia beryllina (Inland Silverside minnow)

Enter the following codes on the DMR for Parameter No. TIE6B:

"0" if mean survival at 24 hrs. is greater than 50% in 100% effluent;

"1" if the mean survival at 24 hrs. is less than or equal to 50% in 100% effluent.

In cases of test substitution (See 24 HOUR ACUTE TEST SUBSTITUTIONS, Item 1.c, above), mean survival results in 100% effluent from the 48 hr. acute or 7 day chronic Menidia beryllina or Cyprinodon variegatus tests, determined at 24 hrs., shall be reported on the DMR under Parameter No. TIE6B.

ii. Mysidopsis bahia (Mysid shrimp)

Enter the following codes on the DMR for Parameter No. TIE3E:

"0" if mean survival at 24 hrs. is greater than 50% in 100% effluent;

"1" if the mean survival at 24 hrs. is less than or equal to 50% in 100% effluent.

In cases of test substitution (See 24-HOUR ACUTE TEST SUBSTITUTIONS, Item 1.c, above), mean survival results in 100% effluent from the 7 day chronic Mysidopsis bahia tests, determined at 24 hrs., shall be reported on the DMR under Parameter No. TIE3E.



**SECTION C-2. WHOLE EFFLUENT TOXICITY LIMITS (48-HOUR ACUTE NOEC FRESHWATER)**

The permittee shall test the effluent for toxicity in accordance with 40 CFR Part 136.

**SCOPE AND METHODOLOGY**

- a) The permittee shall utilize Daphnia pulex acute static renewal 48-hour definitive toxicity test in accordance "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 latest update thereof. A minimum of five (5) replicates with eight (8) organisms per replicate must be used in the control and in each effluent dilution of this test.
- b) The permittee shall utilize Pimephales promelas (Fathead minnow) acute static renewal 48-hour definitive toxicity test in accordance "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 latest update thereof. A minimum of five (5) replicates with eight (8) organisms per replicate must be used in the control and in each effluent dilution of this test.
- c) The NOEC (No Observed Lethal Effect Concentration) is defined as the greatest effluent dilution at and below which lethality that is statistically different from the control (0% effluent) at the 95% confidence level does not occur. Acute test failure is defined as a demonstration of a statistically significant lethal effect at test completion to a test species at or below the critical dilution. The conditions of this item are effective beginning with the coverage of the permit.
- d) This permit may be reopened to require chemical specific effluent limits, additional testing, and/or other appropriate actions to address toxicity.

**TEST ACCEPTANCE**

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

- a) Each toxicity test control (0% effluent) must have a survival equal to or greater than 90%.
- b) The percent coefficient of variation between replicates shall be 40% or less in the control (0% effluent) for the Daphnia pulex survival test and fathead minnow survival test.
- c) The percent coefficient of variation between replicates shall be 40% or less in the critical dilution unless significant lethal effects are exhibited for the Daphnia pulex survival test and/or the fathead minnow survival test.

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

### STATISTICAL INTERPRETATION

For the Daphnia pulex survival test and the Fathead minnow survival test, the statistical analyses used to determine if there is a statistically significant difference between the control and the critical dilution shall be in accordance with the methods for determining the NOEC as described in EPA-821-R-02-012 or the most recent update thereof.

If the conditions of Test Acceptability are met above and the percent survival of the test organism is equal to or greater than 90% in the critical dilution concentration and all lower dilution concentrations, the test shall be considered to be a passing test, and the permittee shall report an NOEC of not less than the critical dilution for the DMR reporting requirements found below.

### DILUTION WATER

a) Dilution water used in the toxicity tests will be receiving water collected as close to the point of discharge as possible but unaffected by the discharge. The permittee shall substitute synthetic dilution water of similar pH, hardness, and alkalinity to the closest downstream perennial water where the receiving stream is classified as intermittent or where the receiving stream has no flow due to zero flow conditions.

b) If the receiving water is unsatisfactory as a result of instream toxicity (fails to fulfill the test acceptance criteria of Item 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:

### SAMPLES AND COMPOSITES

a) The permittee shall collect two flow-weighted composite samples from the outfall.

b) The permittee shall collect a second composite sample for use during the 24-hour renewal of each dilution concentration for both tests. The permittee must collect the composite samples so that the maximum holding time for any effluent sample shall not exceed 36 hours. The permittee must have initiated the toxicity test within 36 hours after the collection of the last portion of the first composite sample. Samples shall be chilled to 6 degrees Centigrade during collection, shipping, and/or storage.

c) The permittee must collect the composite samples such that the effluent samples are representative of any other potentially toxic substance discharged on an intermittent basis.

### REPORTING

a) The permittee shall prepare a full report of the results of all tests conducted pursuant to this Part in accordance with the Report Preparation Section of EPA-821-R-02-012, for every

valid or invalid toxicity test initiated, whether carried to completion or not. The permittee shall retain each full report pursuant to the provisions of PART II.D.4 of this permit. The permittee shall submit full reports upon the specific request of the Agency. For any test which fails, is considered invalid or which is terminated early for any reason, the full report must be submitted for agency review.

b) The permittee shall submit the results of the valid toxicity test on the DMR for that reporting period in accordance with PART II.D.4 of this permit'.

i. Pimephales promelas (Fathead minnow)

- (A) If the No Observed Effect Concentration (NOEC) for survival is less than the critical dilution, enter a "1"; otherwise, enter a "0" for Parameter No. TEM6C.
- (B) Report the NOEC value for survival, Parameter No. TOM6C.
- (C) Report the highest (critical dilution or control) Coefficient of Variation, Parameter No. TQM6C.

ii. Daphnia pulex

- (A) If the NOEC for survival is less than the critical dilution, enter a "1"; otherwise, enter a "0" for Parameter No. TEM3D.
- (B) Report the NOEC value for survival, Parameter No. TOM3D.
- (C) Report the highest (critical dilution or control) Coefficient of Variation, Parameter No. TQM3D.

## **SECTION D. COOLING WATER INTAKE STRUCTURE REQUIREMENTS (Coastal Subcategory Only)**

**Applicability:** These requirements apply only to new facilities for which construction was commenced after July 17, 2006, with a cooling water intake structure having a design intake capacity of greater than 2 million gallons of water per day, of which at least 25% is used for cooling purposes.

*Fixed facility* means a bottom founded offshore oil and gas extraction facility permanently attached to the seabed or subsoil of the outer continental shelf (e.g., platforms, guyed towers, articulated gravity platforms) or a buoyant facility securely and substantially moored so that it cannot be moved without a special effort (e.g., tension leg platforms, permanently moored semi-submersibles) and which is not intended to be moved during the production life of the well. This definition does not include mobile offshore drilling units (MODUs) (e.g., drill ships, temporarily moored semi-submersibles, jack-ups, submersibles, tender-assisted rigs, and drill barges).

Other special definitions that apply to this section can be found in 40 CFR 125.83 and 125.133.

### **1. Application Information**

The owner or operator of a new offshore oil and gas extraction facility must provide the following information with the NOI prior to commencing discharges.

a. New non-fixed facilities must submit source water physical data, cooling water intake structure data, and velocity information:

#### i. Source Water Physical Data

A narrative description and/or maps showing the physical configuration of all source water bodies used by your facility, and the source water body's hydrological and geomorphological features. This information is only required to be submitted once for any facility.

#### ii. Cooling Water Intake Structure Data

(a) Design and construction technology plans and a description of operational measures which will be implemented to minimize impingement, including:

(i) A narrative description of the design, operation of the design, and construction technologies, including fish handling and return systems, that the facility will utilize to maximize the survival of species expected to be most susceptible to impingement. Provide species specific information that demonstrates the efficacy of the technology;

(ii) A narrative description of the design, operation of the design, and construction technologies that the facility will utilize to minimize entrainment of those species expected to be most susceptible to entrainment; and

(iii) Design calculations, drawings, and estimates to support the descriptions above.

(b) A narrative description of the configuration of each of the cooling water intake structures and its location in the water body and in the water column;

(c) A narrative description of the operation of each of the cooling water intake structures, including design intake flows, daily hours of operation, number of days of the year in operation, and seasonal changes, if applicable;

(d) A flow distribution and water balance diagram that includes all sources of water to the facility, recirculating flows, and discharges; and

(e) Engineering drawings of the cooling water intake structure.

### iii. Velocity Information

(a) A narrative description of the design, structure, equipment, and operation used to meet the requirements of a maximum through screen intake velocity of 0.5 ft/s at each cooling water intake structure; and

(b) A design calculations showing that the velocity requirement will be met at the minimum ambient source water surface elevation and maximum head loss across the screens or other device.

b. New fixed facilities must submit source water baseline biological characterization data, source water physical data, cooling water intake structure data, and velocity information:

#### i. Baseline Study requirements for new fixed facilities

Operators must complete the baseline study within three (3) years after they submit their NOI for coverage.

As described below, operators of cooling water intake structures subject to Part I.B.11 may either conduct a study at each new fixed facility or they may participate in an industry wide study. Operators may participate after the close of the study.

Operators of new fixed facilities must submit sufficient information to characterize the biological community of commercial, recreational, and forage base fish and shellfish in the vicinity of the intake structure and to characterize the effects of the cooling water intake structure's operation on aquatic life. This biological characterization must include any available existing information along with field studies to obtain localized data. At a minimum, the information must include:

(a) A list of the data required by this section that are not available and efforts made to identify sources of the data;

(b) A list of species (or relevant taxa) for all life stages and their relative abundance in the vicinity of the cooling water intake structure;

(c) Identification of the species and life stages that would be most susceptible to impingement and entrainment. Species evaluated should include the forage base as well as those most important in terms of significance to commercial and recreational fisheries;

(d) Identification and evaluation of the primary period of reproduction, larval recruitment, and period of peak abundance for relevant taxa;

(e) Data representative of the seasonal and daily activities (e.g., feeding and water column migration) of biological organisms in the vicinity of the cooling water intake structure;

(f) Identification of all threatened, endangered, and other protected species that might be susceptible to impingement and entrainment at the cooling water intake structures;

(g) If the information above is supplemented with data from field studies, the supplemental data must include a description of all methods and quality assurance procedures for sampling and data analysis including a description of the study area; taxonomic identification of sampled and evaluated biological assemblages (including all life stages of fish and shellfish); and sampling and data analysis methods. The sampling and/or data analysis methods you use must be appropriate for a quantitative survey and based on consideration of methods used in other biological studies performed within the same source water body. The study area should include, at a minimum, the area of influence of the cooling water intake structure.

#### ii. Source Water Physical Data

(a) A narrative description and scaled drawings showing the physical configuration of all source water bodies used by your facility, including aerial dimensions, depths, salinity and temperature regimes, and other documentation that supports your determination of the water body type where each cooling water intake structure is located;

(b) Identification and characterization of the source water body's hydrological and geomorphological features, as well as the methods you used to conduct any studies to determine your intake's area of influence within the water body and the results of such studies; and

(c) Location maps.

#### iii. Cooling Water Intake Structure Data

(a) Design and construction technology plans and a description of operational measures which will be implemented to minimize impingement, including:

(i) A narrative description of the design, operation of the design, and construction technologies including fish handling and return systems that the facility will utilize

to maximize the survival of species expected to be most susceptible to impingement. Provide species specific information that demonstrates the efficacy of the technology; and

(ii) A narrative description of the design, operation of the design, and construction technologies that the permittee will utilize to minimize entrainment of those species expected to be most susceptible to entrainment; and

(iii) Design calculations, drawings, and estimates to support the descriptions above.

(b) A narrative description of the configuration of each of the cooling water intake structures and the respective location in the water body and in the water column;

(c) A narrative description of the operation of each of the cooling water intake structures, including design intake flows, daily hours of operation, number of days of the year in operation, and seasonal changes, if applicable;

(d) A flow distribution and water balance diagram that includes all sources of water to the facility, recirculating flows, and discharges; and

(e) Engineering drawings of the cooling water intake structure.

#### iv. Velocity Information

(a) A narrative description of the design, structure, equipment, and operation used to meet the requirements of a maximum through screen intake velocity of 0.5 ft/s at each cooling water intake structure; and

(b) A design calculations showing that the velocity requirement will be met at the minimum ambient source water surface elevation and maximum head loss across the screens or other device.

## 2. Cooling Water Intake Structure Operation Requirements

### a. New non-Fixed Facilities

i. The cooling water intake structure(s) must be designed and constructed so that the maximum through-screen design intake velocity is 0.5 ft/s or less;

ii. The permittee must minimize impingement mortality of fish and shellfish through use of cooling water intake design and construction technologies or operational measures.

### b. New Fixed Facilities that do not employ sea chests as intake structures

i. The cooling water intake structure must be designed and constructed so that the maximum through-screen design intake velocity is 0.5 ft/s; and

ii. The operator must minimize impingement mortality of fish and shellfish and minimize entrainment of entrainable life stages of fish and shellfish through the use of cooling water intake design and construction technologies or operational measures.

c. New Fixed Facilities that Employ Sea Chests as Intake Structures

i. The cooling water intake structure(s) must be designed and constructed so that the maximum through-screen design intake velocity is 0.5 ft/s or less; and

ii. The operator must minimize impingement mortality of fish and shellfish through cooling water intake design and construction technologies or operational measures.

### **3. Monitoring Requirements**

a. New non-Fixed Facilities

i. Visual or remote inspections. Beginning the coverage of this permit, the operator must conduct either visual inspections or use remote monitoring devices (e.g., remotely operated vehicles (ROV), subsea cameras, etc.) during the period the cooling water intake structure is in operation. The operator must conduct visual or remote inspections at least monthly to ensure that the required design and construction technologies are maintained and operated so they continue to function as designed. Visual or remote monitoring is not required when conditions such as storms, high seas, evacuation, or other factors make it unduly hazardous to personnel, the facility, or the equipment utilized. The operator must provide an explanation for any such failure to visually or remotely monitor with the subsequent DMR submittal.

i(a). Alternative to visual or remote inspections. Alternatively, the operator may install proper devices (e.g., differential pressure device, etc.) to continuously monitor intake screens while the intake structure is operating, to ensure that the intake screens are functioning as designed. The operator must also maintain every individual screen at 85% or above efficiency (less than 15% screen blockage) all the time to minimize impingement mortality. The operator must also conduct visual or remote inspection semi-annually.

ii. Velocity monitoring. The operator must monitor intake flow velocity across the intake screens to ensure the maximum intake flow velocity does not exceed 0.5 ft/s. The intake flow velocity shall be monitored continuously.

b. New Fixed Facilities that do not employ sea chests as intake structures

i. Visual or remote inspections. Beginning the coverage of this permit, the operator must conduct either visual inspections or use remote monitoring devices (e.g., remotely operated vehicles (ROV), subsea cameras, etc.) during the period the cooling water intake structure is in operation. The operator must conduct visual or remote inspections at least monthly to ensure that the required design and construction technologies are maintained and operated so they continue to function as designed. Visual or remote monitoring is not required when conditions such as



storms, high seas, evacuation, or other factors make it unduly hazardous to personnel, the facility, or the equipment utilized. The operator must provide an explanation for any such failure to visually or remotely monitor with the subsequent DMR submittal.

i(a). Alternative to visual or remote inspections. Alternatively, the operator may install proper devices (e.g., differential pressure device, etc.) to continuously monitor intake screens while the intake structure is operating, to ensure that the intake screens are functioning as designed. The operator must also maintain every individual screen at 85% or above efficiency (less than 15% screen blockage) all the time to minimize impingement mortality. The operator must also conduct visual or remote inspection semi-annually.

ii. Entrainment monitoring/sampling. After commencement of operations, the operator must monitor for entrainment. The operator must collect samples to monitor entrainment rates (simple enumeration) for each species over a 24-hour period and no less than biweekly during the primary period of reproduction, larval recruitment, and peak abundance identified during the Source Water Baseline Biological Characterization Study. Representative species may be utilized for this monitoring consistent with their use in the Source Water Baseline Characterization Study. The operator must collect samples only when the cooling water intake structure is in operation. After 24 months of monitoring, the permittee may reduce the monitoring frequency to once per month for the remainder of the permit.

iii. Velocity monitoring. The operator must monitor intake flow velocity across the intake screens to ensure the maximum intake flow velocity does not exceed 0.5 ft/s. The intake flow velocity shall be monitored continuously.

c. New Fixed Facilities that Employ Sea Chests as Intake Structures

i. Visual or remote inspections. Beginning the coverage of this permit, the operator must conduct either visual inspections or use remote monitoring devices (e.g., remotely operated vehicles (ROV), subsea cameras, etc.) during the period the cooling water intake structure is in operation. The operator must conduct visual or remote inspections at least monthly to ensure that the required design and construction technologies are maintained and operated so they continue to function as designed. Visual or remote monitoring is not required when conditions such as storms, high seas, evacuation, or other factors make it unduly hazardous to personnel, the facility, or the equipment utilized. The operator must provide an explanation for any such failure to visually or remotely monitor with the subsequent DMR submittal.

i(a). Alternative to visual or remote inspections. Alternatively, the operator may install proper devices (e.g., differential pressure device, etc.) to continuously monitor intake screens while the intake structure is operating, to ensure that the intake screens are functioning as designed. The operator must also maintain every individual screen at 85% or above efficiency (less than 15% screen blockage) all the time to minimize impingement mortality. The operator must also conduct visual or remote inspection semi-annually.

ii. Velocity monitoring. The operator must monitor intake flow velocity across the intake screens to ensure the maximum intake flow velocity does not exceed 0.5 ft/s. The intake flow velocity shall be monitored continuously.

#### **4. Reporting Requirements**

a. An annual status report of the required biological (entrainment) monitoring for each cooling water intake structure must be provided to EPA for fixed facilities that do not employ sea chests.

b. All new facilities required to comply with intake structure monitoring requirements must submit the following information monthly:

1) Visual or remote device inspection: Number of fish/shellfish impinged and screen area blockage for each screen; or

2) Intake screen monitoring as alternate inspection: Number of days on which the screen efficiency is below 85%; and

3) Intake velocity monitoring: Number of days on which the maximum intake velocity is greater than 0.5 ft/s.

c. All reports shall be submitted in accordance with section D. Reporting Requirements, Part II of this permit.