TPDES PERMIT NO. WQ0002430000
[For TCEQ office use only -
EPA I.D. No. TX0082651]

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

This is a renewal of TPDES Permit No. WQ0002430000, issued on December 15, 2009.

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

NRG Texas Power LLC

whose mailing address is

NRG Tower, 1201 Fannin Street
Houston, Texas 77002

is authorized to treat and discharge wastes from Limestone Electric Generating Station, a lignite/coal fired steam-electric generating station (SIC 4911)

located at 3964 Farm-to-Market Road 39, adjacent to and west of Farm-to-Market Road 39, approximately 2.5 miles southeast of Farrar, in Limestone County, Texas 75846

via Outfalls 001, 003, and 006 to the original channel of Lynn Creek, thence to Lambs Creek, thence to Lake Limestone in Segment No. 1252 of the Brazos River Basin; via Outfalls 002, 007, and 008 to the relocated channel of Lynn Creek, thence to Lambs Creek, thence to Lake Limestone in Segment No. 1252 of the Brazos River Basin; and via Outfalls 004 and 005 to unnamed tributaries of Lambs Creek, thence to Lambs Creek, thence to Lake Limestone in Segment No. 1252 of the Brazos 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 December 1, 2018.

ISSUED DATE:

For the Commission

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Outfall Number 001

1. During the period beginning upon date of permit issuance and lasting through date of permit expiration, the permittee is authorized to discharge low volume waste, cooling tower blowdown, coal pile runoff, and bottom ash transport water subject to the following effluent limitations:

The daily maximum flow of effluent shall not exceed 2.304 million gallons per day (MGD).

Effluent Characteristics	Discharge Limitations					Minimum Self-Monitoring Requirements	
	Daily Average		Daily Maximum		Single Grab	Report Daily Average and Daily Maximum	
	lbs/day	mg/L	lbs/day	mg/L	mg/L	Measurement Frequency	Sample Type
Flow	Report, MGD		2.304 MGD		N/A	1/day (*3)	Estimate
Temperature (*1) (*2)	N/A		93°F		N/A	1/day (*3)	In-Situ
Total Suspended Solids	N/A	30	N/A	100	100	1/week (*3)	Grab
Oil and Grease	N/A	15	N/A	20	20	1/week (*3)	Grab
Free Available Chlorine (*1)	N/A	0.2	N/A	0.5	0.5	1/week (*3)	Grab
Copper, Total	N/A	Report	N/A	Report	N/A	1/week (*3)	Grab
Selenium, Total	0.086	0.00448	0.182	0.00949	0.00949	2/month (*3)	Grab

(*1) Parameter applies only to cooling tower blowdown. Monitoring and analytical requirements apply only when cooling tower blowdown is present in the discharge.

(*2) See Other Requirements No. 8 and No. 10.

(*3) When discharge occurs.

2. The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored 1/week (*3) by grab sample.

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

4. Effluent monitoring samples shall be taken at the following location: At Outfall 001, near the southeast corner of the facility, south of stormwater retention pond "A," where ponded wastewater discharges to Lynn Creek, prior to mixing with other waters.

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Outfall Number 002

1. During the period beginning upon date of permit issuance and lasting through date of permit expiration, the permittee is authorized to discharge material handling area runoff, washdown and bottom ash transport water, and low volume waste subject to the following effluent limitations:

Volume: Intermittent and flow-variable.

Effluent Characteristics	Discharge Limitations					Minimum Self-Monitoring Requirements	
	Daily Average		Daily Maximum		Single Grab	Report Daily Average and Daily Maximum	
	lbs/day	mg/L	lbs/day	mg/L	mg/L	Measurement Frequency	Sample Type
Flow	Report, MGD		Report, MGD		N/A	1/occurrence (*1)	Estimate
Total Suspended Solids	N/A	30	N/A	50	50	1/occurrence (*1)	Grab
Oil and Grease	N/A	15	N/A	20	20	1/occurrence (*1)	Grab
Dissolved Oxygen	N/A	N/A	N/A	5.0 (Min.)	5.0 (Min.)	1/occurrence (*1)	Grab
Selenium, Total (*3)	0.87	0.0168	1.83	0.0356	0.0356	1/occurrence (*1)	Grab
Selenium, Total (*4)	0.029	0.0168	0.061	0.0356	0.0356	1/occurrence (*1)	Grab

(*1) When a discharge occurs, samples shall be taken within one hour after discharge begins and during normal working hours (*2).
(*2) See definition in Other Requirement No. 4.
(*3) Effective upon the date of permit issuance and lasting 364 days.
(*4) Effective 365 days after the date of permit issuance and lasting through the expiration date of the permit.

2. The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored 1/occurrence (*1) by grab sample.

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

4. Effluent monitoring samples shall be taken at the following location: At Outfall 002, on the east side of the facility in the southwest corner of the stormwater runoff retention pond, where the ponded wastewaters discharge to Lynn Creek, prior to mixing with any other waters.

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Outfall Number 003

1. During the period beginning upon date of permit issuance and lasting through date of permit expiration, the permittee is authorized to discharge bottom ash transport water, low volume waste, and stormwater runoff subject to the following effluent limitations:

The daily maximum flow shall not exceed 0.51 million gallons per day (MGD).

Effluent Characteristics	Discharge Limitations			Minimum Self-Monitoring Requirements	
	Daily Average mg/L	Daily Maximum mg/L	Single Grab mg/L	Report Daily Average and Daily Maximum Measurement Frequency	Sample Type
Flow	Report, MGD	0.51 MGD	N/A	1/day (*1)	Estimate
Total Suspended Solids	30	100	100	1/week (*1)	Grab
Oil and Grease	15	20	20	1/week (*1)	Grab

(*1) When discharge occurs.

2. The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored 1/week (*1) by grab sample.

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

4. Effluent monitoring samples shall be taken at the following location: At Outfall 003, located near the southeast corner of the facility, north of stormwater retention pond "B," where effluent discharges from the floor drainage treatment system, prior to mixing with any other waters.

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Outfall Number 004

1. During the period beginning upon date of permit issuance and lasting through date of permit expiration, the permittee is authorized to discharge bottom ash transport water, low volume waste, and stormwater runoff subject to the following effluent limitations:

The daily maximum flow of effluent shall not exceed 0.432 million gallons per day (MGD).

Effluent Characteristics	Discharge Limitations					Minimum Self-Monitoring Requirements	
	Daily Average		Daily Maximum		Single Grab	Report Daily Average and Daily Maximum	
	lbs/day	mg/L	lbs/day	mg/L	mg/L	Measurement Frequency	Sample Type
Flow	Report, MGD		0.432 MGD		N/A	1/day (*1)	Estimate
Total Suspended Solids	N/A	30	N/A	100	100	1/week (*1)	Grab
Oil and Grease	N/A	15	N/A	20	20	1/week (*1)	Grab
Selenium, Total	0.016	0.00448	0.034	0.00949	0.00949	2/month (*1)	Grab
Total Dissolved Solids	N/A	N/A	N/A	868	1500	1/year (*1)	Grab

(*1) When discharge occurs.

2. The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored 1/week (*1) by grab sample.

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

4. Effluent monitoring samples shall be taken at the following location: At Outfall 004, on the south side of the facility and west of the lake water treatment building, where treated effluent is discharged from the treatment system, prior to mixing with any other waters.

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Outfall Number 005

1. During the period beginning upon date of permit issuance and lasting through date of permit expiration, the permittee is authorized to discharge low volume waste, metal cleaning waste, bottom ash transport water, and utility wastewater subject to the following effluent limitations:

The daily maximum flow of effluent shall not exceed 0.216 million gallons per day (MGD).

Effluent Characteristics	Discharge Limitations					Minimum Self-Monitoring Requirements	
	Daily Average		Daily Maximum		Single Grab	Report Daily Average and Daily Maximum	
	lbs/day	mg/L	lbs/day	mg/L	mg/L	Measurement Frequency	Sample Type
Flow	Report, MGD		0.216 MGD		N/A	1/day (*2)	Estimate
Total Suspended Solids	N/A	30	N/A	100	100	1/week (*2)	Grab
Oil and Grease	N/A	15	N/A	20	20	1/week (*2)	Grab
Iron, Total (*1)	N/A	1.0	N/A	1.0	1.0	1/week (*2)	Grab
Copper, Total (*1) (*3)	N/A	0.0259	N/A	0.0547	0.0547	1/week (*2)	Grab
Copper, Total (*1) (*4)	N/A	0.0197	N/A	0.0416	0.0416	1/week (*2)	Grab
Selenium, Total (*1)	0.0081	0.00448	0.017	0.00949	0.00949	2/month (*2)	Grab

(*1) When discharging metal cleaning wastes.
(*2) When discharge occurs.
(*3) Effective upon the date of permit issuance and lasting 364 days.
(*4) Effective 365 days after the date of permit issuance and lasting through the expiration date of the permit.

2. The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored 1/week (*2) by grab sample.

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

4. Effluent monitoring samples shall be taken at the following location: At Outfall 005, on the south side of the facility and west of the lake water treatment building, where treated effluent is discharged from the treatment system, prior to mixing with any other waters.

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Outfall Number 006

1. During the period beginning upon date of permit issuance and lasting through date of permit expiration, the permittee is authorized to discharge treated domestic wastewater subject to the following effluent limitations:

The daily average flow of effluent shall not exceed 0.06 million gallons per day (MGD). The daily maximum flow shall not exceed 0.09 MGD.

Effluent Characteristics	Discharge Limitations				Minimum Self-Monitoring Requirements	
	Daily Average		Daily Maximum	Single Grab	Report Daily Average and Daily Maximum	
	lbs/day	mg/L	mg/L	mg/L	Measurement Frequency	Sample Type
Flow	0.06 MGD		0.09 MGD	N/A	1/day (*1)	Estimate
Total Suspended Solids	7.5	15	45	45	1/week (*1)	Grab
Biochemical Oxygen Demand (5-day)	5	10	35	35	1/week (*1)	Grab
Dissolved Oxygen	4.0 (Min.)			4.0 (Min.)	1/week (*1)	Grab
E coli (*2)	Report (*4)		Report (*4)	N/A	1/week (*1)	Grab
E. coli (*3)	126 (*4)		399 (*4)	N/A	1/week (*1)	Grab

(*1) When discharge occurs.
(*2) Effective beginning on the date of permit issuance and lasting for 364 days.
(*3) Effective beginning 365 days from the date of permit issuance and lasting through the date of permit expiration.
(*4) Colonies or most probable number per 100 milliliters (cols or MPN/100 ml).

2. The effluent shall contain a minimum chlorine residual of at least 1.0 mg/L and a maximum chlorine residual of 4.0 mg/L after a detention of at least 20 minutes (based on peak flow), and shall be monitored 1/day (*1) by grab sample. An equivalent method of disinfection may be substituted only with prior approval of the Executive Director.

3. The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored 1/week (*1) by grab sample.

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 006, near the southeast corner of the facility, north of stormwater retention pond "A," where treated effluent is discharged from the treatment system, prior to mixing with any other waters.

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Outfall Number 007

1. During the period beginning upon date of permit issuance and lasting through date of permit expiration, the permittee is authorized to discharge treated domestic wastewater subject to the following effluent limitations:

The daily average flow of effluent shall not exceed 0.003 million gallons per day (MGD). The daily maximum flow shall not exceed 0.006 MGD.

Effluent Characteristics	Discharge Limitations				Minimum Self-Monitoring Requirements	
	Daily Average		Daily Maximum	Single Grab	Report Daily Average and Daily Maximum	
	lbs/day	mg/L	mg/L	mg/L	Measurement Frequency	Sample Type
Flow	0.003 MGD		0.006 MGD	N/A	1/day (*1)	Estimate
Total Suspended Solids	0.38	15	45	45	1/week (*1)	Grab
Biochemical Oxygen Demand (5-day)	0.25	10	35	35	1/week (*1)	Grab
Dissolved Oxygen	4.0 (Min.)			4.0 (Min.)	1/week (*1)	Grab
E coli (*2)	Report (*4)		Report (*4)	N/A	1/week (*1)	Grab
E. coli (*3)	126 (*4)		399 (*4)	N/A	1/week (*1)	Grab

(*1) When discharge occurs.
(*2) Effective beginning on the date of permit issuance and lasting for 364 days.
(*3) Effective beginning 365 days from the date of permit issuance and lasting through the date of permit expiration.
(*4) Colonies or most probable number per 100 milliliters (cols or MPN/100 ml).

2. The effluent shall contain a chlorine residual of at least 1.0 mg/L and a maximum chlorine residual of 4.0 mg/L after a detention of at least 20 minutes (based on peak flow), and shall be monitored 1/day (*1) by grab sample. An equivalent method of disinfection may be substituted only with prior approval of the Executive Director.

3. The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored 1/week (*1) by grab sample.

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(s): At Outfall 007, on the east side of the facility, south of the stormwater runoff retention basin, where treated effluent is discharged from the treatment system, prior to mixing with any other waters.

FFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Outfall Number 008

1. During the period beginning upon date of permit issuance and lasting through date of permit expiration, the permittee is authorized to discharge bottom ash transport water and low volume waste subject to the following effluent limitations:

   The daily maximum flow shall not exceed 0.072 million gallons per day (MGD).

Effluent Characteristics	Discharge Limitations					Minimum Self-Monitoring Requirements	
	Daily Average		Daily Maximum		Single Grab	Report Daily Average and Daily Maximum	
	lbs/day	mg/L	lbs/day	mg/L	mg/L	Measurement Frequency	Sample Type
Flow	Report, MGD		0.072 MGD		N/A	1/day (*1)	Estimate
Total Suspended Solids	N/A	30	N/A	100	100	1/week (*1)	Grab
Oil and Grease	N/A	15	N/A	20	20	1/week (*1)	Grab
Selenium, Total	0.01	0.0168	0.02	0.0356	0.00356	2/month (*1)	Grab

(*1) When discharge occurs.

2. The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored 1/week (*1) by grab sample.

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

4. Effluent monitoring samples shall be taken at the following location(s): At Outfall 008, on the east side of the facility, between the de-watered sludge waste disposal area and the stormwater runoff retention basin, where commingled wastewater is discharged from the floor drainage treatment system, prior to mixing with any other waters.

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 (TWC) §§5.103 and 5.105, and the Texas Health and Safety Code (THSC) §§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 Texas Water Code §26.001 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 one 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. Bacteria concentration (Fecal coliform, *E. coli*, or Enterococci) – the number of colonies of bacteria per 100 milliliters effluent. The daily average 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 nth 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 bacteria equaling zero, a substitute value of one shall be made for input into either computation method. If specified, the 7-day average for 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 × Concentration, mg/L × 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(c).

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 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 that 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 that 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; TWC Chapters 26, 27, and

28; and THSC 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

   a. 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.

   b. All laboratory tests submitted to demonstrate compliance with this permit must meet the requirements of 30 TAC Chapter 25, Environmental Testing Laboratory Accreditation and Certification.

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 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 that 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 that 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 that 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 that 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) that 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 that would result in any discharge, on a nonroutine or infrequent basis, of a toxic pollutant that 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 that would be subject to CWA §301 or §306 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 that 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 TWC §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 that 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 CWA §§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 TWC Chapters 26, 27, and 28, and THSC 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

TWC §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 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 that are subject neither to effluent limitations in the permit, nor to notification requirements in Monitoring and Reporting Requirements No. 9; or

      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 that are not described in the permit application or that 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 TWC §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 CWA §307(a) for a toxic pollutant that 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 CWA §307(a) 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 that 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 Texas Water Code Chapter 11.

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 Municipal Permits 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 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, 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 TWC §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 that 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% of the permitted daily average or annual average flow for three consecutive months, the permittee must initiate engineering and financial planning for expansion or upgrading of the domestic wastewater treatment or collection facilities. Whenever the flow reaches 90% 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 or collection facilities. In the case of a domestic wastewater treatment facility that reaches 75% 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 judgment 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%, unless otherwise authorized by this permit.

11. Facilities that 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 Permitting and Remediation Support 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 THSC Code Chapter 361.

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OTHER REQUIREMENTS

1. Violations of daily maximum limitations for the following pollutants shall be reported orally or by facsimile to TCEQ Region 9, 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 9 and the Enforcement Division (MC 224):

POLLUTANT	*MAL (mg/L)
Chromium (Total)	0.010
Copper (Total)	0.010
Selenium (Total)	0.010
Zinc (Total)	0.005

*MAL – minimum analytical level

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 minimum analytical level (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.

2. There shall be no discharge of water from the flue gas desulphurization system.

3. There shall be no discharge of polychlorinated biphenyl compounds such as those commonly used for transformer fluid.

4. DEFINITIONS

   a. The term "free available chlorine" means the value obtained using any of the "chlorine—free available" methods in Table 1B in 40 CFR Part 136.3(a) where the method has the capability of measuring free available chlorine, or other methods approved by the permitting authority.

      Neither free available chlorine nor total residual chlorine may be discharged from any unit for more than two hours in any one day, and not more than one unit in any plant may discharge free available or total residual chlorine at any one time unless the permittee can demonstrate to the permitting Agency that the units in a particular location cannot operate at or below this level of chlorination.

b. The term "metal cleaning waste" means any wastewater resulting from cleaning (with or without chemical compound) any metal process equipment, including, but not limited to, boiler tube cleaning, boiler fireside cleaning, and air preheater cleaning.

c. The term "material handling area runoff" means the rainfall runoff from or through any coal, ash, or other material storage pile coming from the material handling area and discharged via Outfall 002.

d. Any untreated overflow from facilities designed, constructed, and operated to treat the volume of "material handling area runoff" which is associated with a 10-year, 24-hour rainfall event shall not be subject to the limitations specified (for material handling area runoff) in this permit.

The term "10-year, 24-hour rainfall event" shall mean a rainfall event with the probable reoccurrence interval of once in ten years as defined by the National Weather Service in Technical Paper No. 40, "Rainfall Frequency Atlas of the United States," May 1961, and subsequent amendments, or equivalent regional or state rainfall probability information developed therefrom.

e. The term *low volume waste sources* means, taken collectively as if from one source, except those for which specific limitations are otherwise established in 40 CFR Part 423. Low volume wastes sources include, but are not limited to: wastewaters from wet scrubber air pollution control systems, ion exchange water treatment system, water treatment evaporator blowdown, laboratory and sampling streams, boiler blowdown, floor drains, cooling tower basin cleaning wastes, and recirculating house service water systems. Sanitary and air conditioning wastes are not included.

f. The term "ash transport water" means water used in the transport of either fly ash or bottom ash.

g. The term "blowdown" means the minimum discharge of recirculating water for the purpose of discharging materials contained in the water, the further buildup of which would cause concentration in amounts exceeding limits established by best engineering practices.

h. The term "normal working hours," as it is used in the permit on the effluent limitations and monitoring requirements page for Outfall 002, means on Monday through Thursday from 6:30 AM to 5:00 PM.

5. This provision supersedes and replaces Provision 1 (Self-Reporting), Paragraph 1, Monitoring and Reporting Requirements found on Page 4 of this permit.

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 location(s) specified on the reporting form or the instruction sheet, by the 25th 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 the approved TPDES self-report form, Discharge Monitoring Report (DMR) Form EPA No. 3320-1, and signed and certified as required by Monitoring and Reporting Requirements No. 10.

6. There is no mixing zone established for discharges via Outfalls 001, 002, 003, 004, 005, and 008 to an intermittent stream. Acute toxic criteria apply at the point of discharge.

7. The domestic sewage plant (Outfalls 006 and 007) shall be operated and maintained by a wastewater treatment plant operator holding a valid certificate of competency. The certificate of competency for

the operator shall be a Class C certificate or higher for Outfall 006 and Class D or higher for Outfall 007 in accordance with 30 TAC §30.350.

8. The flow weighted average temperature (FWAT) shall be computed and recorded on a daily basis. FWAT shall be computed at equal time intervals not greater than two hours. The method of calculating FWAT is as follows:

$$\text{FWAT} = \frac{\text{SUMMATION (INSTANTANEOUS FLOW X INSTANTANEOUS TEMPERATURE)}}{\text{SUMMATION (INSTANTANEOUS FLOW)}}$$

The "daily average temperature" shall be the arithmetic average of all FWAT's calculated during a calendar month.

The "daily maximum temperature" shall be the highest FWAT calculated during a calendar month.

9. The following Best Management Practices shall be implemented by the permittee:
   a. The use of sodium bromide or any other bromide-based chemical compound in the cooling tower circulation system is prohibited.
   b. The following information for any new chemical to be used in the cooling tower circulation system shall be submitted to the Water Quality Assessment Team (MC-150) of the Water Quality Division at least 30 days prior to use in the cooling tower circulation system:
      (1) the technical name, trade name, active ingredient(s), and the CAS number(s);
      (2) the intended dosage rate and anticipated effluent concentration;
      (3) the manufacturer's toxicological data, if available, and other toxicity studies, if available; and
      (4) persistence and bio-accumulative characteristics, if available.

10. The permittee shall develop and submit to the TCEQ, within one year of the permit effective date, a plan to characterize the thermal plume in the receiving water through either the use of a model, mass balance, or via collected or existing in-stream temperature data. The permittee would then be required to implement the plan following its approval by the TCEQ.

    The permittee is hereby placed on notice that the Executive Director of the TCEQ will be initiating changes to evaluation procedures and/or rulemaking that may affect thermal requirements for this facility.

11. The 126 priority pollutants (Appendix A of 40 CFR Part 423) contained in chemicals added for cooling tower maintenance, except chromium and zinc, shall be limited in the discharge to "no detectable amount." If used, total chromium shall be limited to 0.2 mg/l at any time and total zinc shall be limited to 0.40 mg/l at any time. The use of other chemical additives, including phosphorous, is not authorized unless approval is obtained and limitations are established on a case-by-case basis in accordance with 40 CFR § 122.62(a) and reported according to the requirements given in Other Requirement No. 13 of this permit.

12. <u>COOLING WATER INTAKE STRUCTURE REQUIREMENTS: 316(b) of the Clean Water Act (CWA)</u>

    The permittee shall continue to operate and maintain the cooling water intake structure (CWIS) configuration consistent with the e-mails dated July 14, 2014, submitted as part of the major amendment application received on May 23, 2013, which include a description of how the facility meets Best Technology Available (BTA) for minimizing Adverse Environmental Impact (AEI).

    Specifically, the permittee shall adhere to the following conditions related to the operation, maintenance, and monitoring of the CWIS:

a. screens shall be in proper operating condition whenever the circulating water pumps are withdrawing water;

b. if any material is removed it shall be properly disposed in accordance with TCEQ regulations;

c. routine preventive maintenance shall be conducted to ensure proper operating condition of the screen(s) on an as needed basis, but at a minimum of once every five years; and

d. records documenting the operation and maintenance of the cooling water intake structure shall be kept on site for a minimum of five years, and made available to TCEQ personnel upon request.

Within six months of permit issuance, the permittee shall submit an Impingement Mortality and Entrainment Characterization Study to the Water Quality Division, Industrial Wastewater Permitting Team (MC-148). If it is later determined that the current CWIS configuration is not representative of BTA for minimizing AEI, this permit may be reopened to incorporate additional requirements.

13. After permit issuance, "Attachment A" (Tables 1, 2, 3, 4, and 5) shall be completed with the analytical results for Outfalls 001, 002, 003, 004, 005, 006, 007, and 008 and then sent to the TCEQ, Wastewater Permitting Section (MC-148). The analytical data shall be submitted within 60 days after it has been obtained by the permittee. Based on a technical review of the submitted analytical results, a permit amendment may be initiated by TCEQ staff to include additional effluent limitations or monitoring requirements, or both.

    Sample data submitted with the application and tested to the appropriate MAL (i.e. non-detect at less than the minimum analytical level) may be included in the table.

    Test methods utilized to determine compliance with the permit monitoring and reporting requirements and/or limitations shall be according to EPA methodology and sensitive enough to detect the parameters listed in the tables in Attachment A at the minimum analytical level (MAL). When an analysis of an effluent sample for these parameters results in a measurement of less than the MAL, that parameter shall be reported as "< (MAL value)," and this shall be interpreted as a value of zero (0) for compliance purposes.

14. Monitoring results shall be provided at the intervals specified in the permit. For pollutants which are monitored annually, effluent reports shall be submitted in September of each year. For pollutants which are monitored twice per year, the first effluent report shall be submitted six months after the date of permit issuance, and subsequent reports shall be submitted every six months thereafter. For pollutants which are monitored four times per year, the first effluent report shall be submitted three months after the date of permit issuance, and subsequent reports shall be submitted every three months thereafter.

15. This requirement is applicable to the treatment and disposal of domestic wastewater (sewage) at Outfalls 006 and 007 only.

    On-site disposal of sewage sludge is not authorized. The permittee shall ensure that all sewage sludge which is not a hazardous waste (as defined in 30 TAC Chapter 335) is handled, transported, and disposed of in compliance with the applicable provisions of 30 TAC Chapter 312. The permittee shall ensure that all sewage sludge which is a hazardous waste (as defined in 30 TAC Chapter 335) is handled, transported, and disposed of in compliance with the applicable provisions of 30 TAC Chapter 335.

    The sludge from the treatment process shall be digested, dewatered, and disposed of in accordance with all the applicable rules of the TCEQ. The permittee shall ensure that the disposal of sludge does not cause any contamination of the ground or surface waters in the state. The permittee shall keep records of all sludges removed from the wastewater treatment plant site. Such records include the

following information:

(a) Volume (dry-weight basis) of sludge disposed;
(b) Date of disposal;
(c) Identity and registration number of hauler;
(d) Location and registration or permit number of disposal site; and
(e) Method of final disposal.

The above records shall be maintained on a monthly basis and be available at the plant site for inspection by authorized representatives of the TCEQ for at least five years.

16. The permittee is hereby placed on notice that this permit may be reviewed by the TCEQ after the completion of any new intensive water quality survey on Segment No. 1252 of the Bazos River Basin and any subsequent updating of the water quality model for Segment No. 1252, in order to determine if the limitations and conditions contained herein are consistent with any such revised model. The permit may be amended, pursuant to 30 TAC Sections 305.62, as a result of such review.

17. BIOMONITORING

Limitations and requirements for biomonitoring are located in Attachment B of this permit.

ATTACHMENT A

Table 1

Outfall No.: □C □G	**Effluent Concentration (mg/l)**				
Pollutants	**Samp. 1**	**Samp. 2**	**Samp. 3**	**Samp. 4**	**Average**
BOD (5-day)					
CBOD (5-day)					
Chemical Oxygen Demand					
Total Organic Carbon					
Ammonia Nitrogen					
Total Suspended Solids					
Nitrate Nitrogen					
Total Organic Nitrogen					
Total Phosphorus					
Oil and Grease					
Total Residual Chlorine					
Total Dissolved Solids					
Sulfate					
Chloride					
Fluoride					
Temperature (°F)					
pH (Standard Units; min/max)					

	Effluent Concentration (µg/l)					**MAL (µg/l)**
Total Aluminum						30
Total Antimony						30
Total Arsenic						10
Total Barium						10
otal Beryllium						5
Total Cadmium						1
Total Chromium						10
Trivalent Chromium						N/A
Hexavalent Chromium						10
Total Copper						10
Cyanide						20
Total Lead						5
Total Mercury						0.2
Total Nickel						10
Total Selenium						10
Total Silver						2.0
Total Thallium						10
Total Zinc						5

ATTACHMENT A

Table 2

Outfall No.:	□C □G	**Effluent Concentration (µg/l) (*1)**					
Pollutants		**Samp. 1**	**Samp. 2**	**Samp. 3**	**Samp. 4**	**Average**	**MAL (µg/l)**
Benzene							10
Benzidine							50
Benzo(a)anthracene							10
Benzo(a)pyrene							10
Carbon Tetrachloride							10
Chlorobenzene							10
Chloroform							10
Chrysene							10
Cresols							(*2)
Dibromochloromethane							10
1.2-Dibromoethane							2
1.4-Dichlorobenzene							10
1.2-Dichloroethane							10
1.1-Dichloroethylene							10
Fluoride							500
Hexachlorobenzene							10
Hexachlorobutadiene							10
Hexachloroethane							20
Methyl Ethyl Ketone							50
Nitrobenzene							10
n-Nitrosodiethylamine							20
n-Nitroso-di-n-Butylamine							20
PCB's, Total (*3)							1
Pentachlorobenzene							20
Pentachlorophenol							50
Phenanthrene							10
Pyridine							20
1.2.4.5-Tetrachlorobenzene							20

ATTACHMENT A

Table 2 (cont'd)

Tetrachloroethylene						10
Trichloroethylene						10
1.1.1-Trichloroethane						10
2.4.5-Trichlorophenol						50
TTHM (Total Trihalomethanes)						10
Vinyl Chloride						10

(*1) Indicate units if different from µg/l.
(*2) MAL's for Cresols: p-Chloro-m-Cresol 10 µg/l; 4,6-Dinitro-o-Cresol 50 µg/l; p-Cresol 10 µg/l
(*3) Total of PCB-1242, PCB-1254, PCB-1221, PCB-1232, PCB-1248, PCB-1260, PCB-1016.

Table 3

Outfall No.:	□C □G	**Effluent Concentration (µg/l) (*1)**				
Pollutants		**Believed Present**	**Believed Absent**	**Average**	**Maximum**	**No. of Samples**
Bromide						
Color (PCU)						
Nitrate-Nitrite						
Sulfide (as S)						
Sulfite (as SO_3)						
Surfactants						
Total Boron						
Total Cobalt						
Total Iron						
Total Magnesium						
Total Molybdenum						
Total Manganese						

(*1) Indicate units if different from µg/l.

ATTACHMENT A

Table 4

Outfall No.: ☐C ☐G	Effluent Concentration (µg/L)*			
Pollutants	**Average**	**Maximum**	**No. of Samples**	**MAL (µg/L)**
VOLATILE COMPOUNDS				
Acrolein				50
Acrylonitrile				50
Benzene				10
Bromoform				10
Carbon Tetrachloride				10
Chlorobenzene				10
Chlorodibromomethane				10
Chloroethane				50
2-Chloroethylvinyl Ether				10
Chloroform				10
Dichlorobromomethane				10
1,1-Dichloroethane				10
1,2-Dichloroethane				10
1,1-Dichloroethylene				10
1,2-Dichloropropane				10
1,3-Dichloropropylene				10
Ethylbenzene				10
Methyl Bromide				50
Methyl Chloride				50
Methylene Chloride				20
1,1,2,2-Tetrachloroethane				10
Tetrachloroethylene				10
Toluene				10
1,2-Trans-Dichloroethylene				10
1,1,1-Trichloroethane				10
1,1,2-Trichloroethane				10
Trichloroethylene				10
Vinyl Chloride				10

* Indicate units if different from (µg/L).

ATTACHMENT A

Table 5

Pollutants	Effluent Concentration (µg/L)*			MAL (µg/L)
	Average	Maximum	No. of Samples	
ACID COMPOUNDS				
2-Chlorophenol				10
2,4-Dichlorophenol				10
2,4-Dimethylphenol				10
4,6-Dinitro-o-Cresol				50
2,4-Dinitrophenol				50
2-Nitrophenol				20
4-Nitrophenol				50
P-Chloro-m-Cresol				10
Pentalchlorophenol				50
Phenol				10
2,4,6-Trichlorophenol				10

* Indicate units if different from (µg/L).

ATTACHMENT B

48-HOUR ACUTE BIOMONITORING REQUIREMENTS: FRESHWATER

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

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 of the test organisms.

   b. 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 its most recent update:

      1) Acute static renewal 48-hour definitive toxicity test using the water flea (*Daphnia pulex* or *Ceriodaphnia dubia*). 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.

      2) Acute static renewal 48-hour definitive toxicity test using the fathead minnow (*Pimephales promelas*). 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 submit a valid test for each test species during the required reporting period for that species. A minimum of five replicates with eight organisms per replicate shall be used in the control and each dilution. A repeat test shall include the control and all effluent dilutions and use the appropriate number of organisms and replicates, as specified above. 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.

   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 WET limit, a Chemical-Specific (CS) limit, a Best Management Practice (BMP), or other appropriate actions to address toxicity. The permittee may be required to conduct a Toxicity Reduction Evaluation after multiple toxic events.

   e. Testing Frequency Reduction

      1) If none of the first four consecutive quarterly tests demonstrates significant lethal effects, the permittee may submit this information in writing and, upon approval, reduce the testing frequency to once per six months for the invertebrate test species and once per year for the vertebrate test species.

      2) If one or more of the first four consecutive quarterly tests demonstrates significant lethal effects, the permittee shall continue quarterly testing for that species 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 for that species until the permit is reissued.

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 90% or greater;

2) a Coefficient of Variation percent (CV%) of 40 or less for both the control and critical dilution. However, if significant lethality is demonstrated, a CV% greater than 40 shall not invalidate the test. The CV% requirement does not apply when significant lethality occurs.

b. Statistical Interpretation

1) For the water flea and fathead minnow 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 manual referenced above, or its most recent update.

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 90% 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 lethality is demonstrated. The Lowest Observed Effect Concentration (LOEC) is defined as the lowest effluent dilution at which significant lethality is demonstrated. Significant lethality is herein defined as a statistically significant difference the survival of the test organism(s) in a specified effluent dilution compared to the survival 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.

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) Staff will review test results for consistency with rules, procedures, and permit requirements.

ATTACHMENT B

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 preexisting 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;

c) the permittee submitted all test results indicating receiving water toxicity with the reports and information required in Part 3 of this Section.

3) The synthetic dilution water shall consist of standard, moderately hard, reconstituted water. 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 two composite samples from Outfall 001. The second composite sample will be used for the renewal of the dilution concentrations for each toxicity test.

2) The permittee shall collect the 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 composite sample. The holding time for the subsequent 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 Outfall 001 ceases discharging during the collection of effluent samples, the requirements for the minimum number of effluent samples, the minimum numbers 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

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 sample collection duration and the static renewal protocol associated with the abbreviated sample collection must be documented in the full report.

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 Standards Implementation Team (MC 150) of the Water Quality Division.

a. The permittee shall prepare a full report of the results of all tests conducted in accordance with the manual referenced above, or its most recent update, for every valid and invalid toxicity test initiated whether carried to completion or not.

b. The permittee shall routinely report the results of each biomonitoring test on the Table 1 forms provided with 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 for the appropriate parameters for valid tests only:

1) For the water flea, Parameter TEM3D, enter a "1" if the NOEC for survival is less than the critical dilution; otherwise, enter a "0."

2) For the water flea, Parameter TOM3D, report the NOEC for survival.

3) For the water flea, Parameter TXM3D, report the LOEC for survival.

4) For the fathead minnow, Parameter TEM6C, enter a "1" if the NOEC for survival is less than the critical dilution; otherwise, enter a "0."

5) For the fathead minnow, Parameter TOM6C, report the NOEC for survival.

6) For the fathead minnow, Parameter TXM6C, report the LOEC for survival.

d. Enter the following codes 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."

4. Persistent Toxicity

The requirements of this Part apply only when a toxicity test demonstrates significant lethality. Significant lethality is defined as a statistically significant difference between the

survival of the test organisms at the critical dilution when compared to the survival of the test organisms in the control.

a. The permittee shall conduct a total of two additional tests (retests) for any species that demonstrates significant lethality. 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.

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.

c. 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 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 Toxicity Reduction Evaluation (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 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 TRE 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 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.

ATTACHMENT B

Where the permittee has identified or suspects specific pollutant(s) and source(s) of effluent toxicity, the permittee shall conduct, concurrent with toxicity testing, chemical-specific analyses for the identified and suspected pollutant(s) and 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 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 substantiating documentation which identifies the pollutant(s) and 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 accommodates 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 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 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 to specify CS limits.

ATTACHMENT B

TABLE 1 (SHEET 1 OF 2)

WATER FLEA SURVIVAL

		Date Time		Date Time
Dates and Times Composites Collected	No. 1 FROM:	_____	TO:	_____
	No. 2 FROM:	_____	TO:	_____

Test initiated: _____ am/pm _____ date
Dilution water used: _____ Receiving water _____ Synthetic Dilution water

PERCENT SURVIVAL

Time	Rep	Percent effluent					
		0%	32%	42%	56%	75%	100%
24h	A						
	B						
	C						
	D						
	E						
48h	A						
	B						
	C						
	D						
	E						
Mean at test end							
CV%*							

*Coefficient of Variation = Standard Deviation x 100/mean

Dunnett's Procedure or Steel's Many-One Rank Test as appropriate:

Is the mean survival at 48 hours significantly less than the control survival?

CRITICAL DILUTION (100%): _____ YES _____ NO

Enter percent effluent corresponding to the NOEC below:

1) NOEC survival = _____% effluent

2) LOEC survival = _____% effluent

ATTACHMENT B

TABLE 1 (SHEET 2 OF 2)

FATHEAD MINNOW SURVIVAL

		Date Time		Date Time
Dates and Times Composites Collected	No. 1	FROM: _____	TO: _____	
	No. 2	FROM: _____	TO: _____	

Test initiated: _____ am/pm _____ date

Dilution water used: _____ Receiving water _____ Synthetic Dilution water

PERCENT SURVIVAL

Time	Rep	Percent effluent					
		0%	32%	42%	56%	75%	100%
24h	A						
	B						
	C						
	D						
	E						
48h	A						
	B						
	C						
	D						
	E						
Mean at test end							
CV%*							

* Coefficient of Variation = standard deviation x 100/mean

Dunnett's Procedure or Steel's Many-One Rank Test as appropriate:

Is the mean survival at 48 hours significantly less than the control survival?

CRITICAL DILUTION (100%): _____ YES _____ NO

Enter percent effluent corresponding to the NOEC below:

1) NOEC survival = _____% effluent

2) LOEC survival = _____% effluent

ATTACHMENT B

24-HOUR ACUTE BIOMONITORING REQUIREMENTS: FRESHWATER

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 lethality in accordance with the provisions in this Section. Such testing will determine compliance with the Surface Water Quality Standard, 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 its most recent update:

      1) Acute 24-hour static toxicity test using the water flea (*Daphnia pulex* or *Ceriodaphnia dubia*). 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 fathead minnow (*Pimephales promelas*). 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. The control and dilution water shall consist of standard, synthetic, moderately hard, reconstituted water.

   d. This permit may be amended to require a WET limit, a Best Management Practice (BMP), Chemical-Specific (CS) limits, or other appropriate actions to address toxicity. The permittee may be required to conduct a Toxicity Reduction Evaluation after multiple toxic events.

   e. As the dilution series specified in the 48-Hour Acute 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 dilution water shall consist of standard, synthetic, moderately hard, reconstituted water.

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c. Samples and Composites

1) The permittee shall collect one composite sample from Outfall 001.

2) The permittee shall collect the 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 composite sample. Samples shall be maintained at a temperature of 0-6 degrees Centigrade during collection, shipping, and storage.

4) If Outfall 001 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 Standards Implementation Team (MC 150) of the Water Quality Division.

a. The permittee shall prepare a full report of the results of all tests conducted pursuant to this permit in accordance with the manual referenced above, or its most recent update, for every valid and invalid toxicity test initiated.

b. The permittee shall routinely report the results of each biomonitoring test on the Table 2 forms provided with 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 for the appropriate parameters for valid tests only:

1) For the water flea, Parameter TIE3D, 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 "1."

2) For the fathead minnow, Parameter TIE6C, 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 "1."

d. Enter the following codes 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 "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 "1."

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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 are 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.

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 Toxicity Reduction Evaluation (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 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 TRE 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 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;

ATTACHMENT B

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 source(s) of effluent toxicity, the permittee shall conduct, concurrent with toxicity testing, chemical-specific analyses for the identified and suspected pollutant(s) and 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, 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 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 substantiating documentation which identifies the pollutant(s) and 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 accommodates 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 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 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 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 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 to specify a CS limit.

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TABLE 2 (SHEET 1 OF 2)

WATER FLEA SURVIVAL

GENERAL INFORMATION

	Time	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*						

Enter percent effluent corresponding to the LC50 below:

24 hour LC50 = _____% effluent

ATTACHMENT B

TABLE 2 (SHEET 2 OF 2)

FATHEAD MINNOW SURVIVAL

GENERAL INFORMATION

	Time	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						

Enter percent effluent corresponding to the LC50 below:

24 hour LC50 = _____% effluent

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

For draft Texas Pollutant Discharge Elimination System TPDES Permit No. WQ0002430000, EPA ID No. TX0082651 to discharge to water in the state.

Issuing Office:	Texas Commission on Environmental Quality P.O. Box 13087 Austin, Texas 78711-3087
Applicant:	NRG Texas Power LLC NRG Tower, 1201 Fannin Street Houston, Texas 77002
Prepared By:	Gordon Cooper Wastewater Permitting Section Water Quality Division (512) 239-1963
Date:	December 13, 2013
Permit Action:	Renewal; TPDES Permit No. WQ0002430000

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 December 1, 2018, following the requirements of 30 Texas Administrative Code (TAC) §305.71.

II. APPLICANT ACTIVITY

The applicant currently operates Limestone Electric Generating Station, a coal fired steam-electric generating station.

III. DISCHARGE LOCATION

As described in the application, the plant site is located at 3964 Farm-to-Market Road 39, adjacent to and west of Farm-to-Market Road 39, approximately 2.5 miles southeast of Farrar, in Limestone County, Texas 75846. Discharge is via Outfalls 001, 003, and 006 to the original channel of Lynn Creek, thence to Lambs Creek, thence to Lake Limestone in Segment No. 1252 of the Brazos River Basin; via Outfalls 002, 007, and 008 to the relocated channel of Lynn Creek, thence to Lambs Creek, thence to Lake Limestone in Segment No. 1252 of the Brazos River Basin; and via Outfalls 004 and 005 to unnamed tributaries of Lambs Creek, thence to Lambs Creek, thence to Lake Limestone in Segment No. 1252 of the Brazos River Basin.

IV. RECEIVING STREAM USES

The unclassified receiving waters at Lynn Creek (original), Lynn Creek (relocated), unnamed tributaries of Lambs Creek, and Lambs Creek have minimal aquatic life use. The designated uses for Segment No. 1252 are primary contact recreation, public water supply, and high aquatic life use.

V. STREAM STANDARDS

The general criteria and numerical criteria that make up the stream standards are provided in 30 TAC §§307.1 - 307.10, effective July 22, 2010.

VI. DISCHARGE DESCRIPTION

The following is a quantitative description of the discharge described in the Monthly Effluent Report data for the period of May 2008 through April 2013. 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

Outfall	Frequency	Average of Daily Avg, MGD	Maximum of Daily Max, MGD
001	1/day	*ND	*ND
002	1/occurrence	0.164 MGD	0.569 MGD
003	1/day	*ND	*ND
004	1/day	*ND	*ND
005	1/day	*ND	*ND
006	1/day	*ND	*ND
007	1/day	*ND	*ND
008	1/day	*ND	*ND

B. Temperature

Outfall	Daily Avg, °F	Daily Max, °F
001	ND	ND

C. Effluent Characteristics

Outfall	Parameter	Average of Daily Avg	Maximum of Daily Max
001	Total Suspended Solids (TSS)	*ND	*ND
	Oil and Grease	*ND	*ND
	Free Available Chlorine	*ND	*ND
	Selenium, Total	*ND	*ND
	Copper, Total	*ND	*ND
	pH	*ND	*ND
002	TSS	6 mg/L	10 mg/L
	Oil and Grease	5 mg/L	5 mg/L
	Dissolved Oxygen (DO)	N/A	8.3 mg/L (Min.)
	Selenium, Total	0.01 mg/L 0.013 lb/day	0.01 mg/L 0.15 lb/day
	pH	6.0 S.U (Min.)	9.0 S.U.
003	TSS	*ND	*ND
	Oil and Grease	*ND	*ND
	pH	*ND	*ND

Outfall	Parameter	Average of Daily Avg	Maximum of Daily Max
004	TSS	*ND	*ND
	Oil and Grease	*ND	*ND
	Total Dissolved Solids (TDS)	*ND	*ND
	Selenium, Total	*ND	*ND
	pH	*ND	*ND
005	TSS	*ND	*ND
	Oil and Grease	*ND	*ND
	Iron, Total	*ND	*ND
	Selenium, Total	*ND	*ND
	Copper, Total	*ND	*ND
	pH	*ND	*ND
006	TSS	*ND	*ND
	Biochemical Oxygen Demand (5-day) (BOD5)	*ND	*ND
	Dissolved Oxygen	*ND	*ND
	Residual Chlorine	*ND	*ND
	pH	*ND	*ND
007	TSS	*ND	*ND
	BOD5	*ND	*ND
	Dissolved Oxygen	*ND	*ND
	Residual Chlorine	*ND	*ND
	pH	*ND	*ND
008	TSS	*ND	*ND
	Oil and Grease	*ND	*ND
	Selenium, Total	*ND	*ND
	pH	*ND	*ND

*ND – No discharge occurred at this outfall during the period of May 2008 through April 2013.

There were no exceedances in effluent limitations reported during the reporting period queried.

VII. DRAFT EFFLUENT LIMITATIONS

Final effluent limitations established in the draft permit and can be viewed in Appendix C of this fact sheet and executive director's preliminary decision.

VIII. SUMMARY OF CHANGES FROM APPLICATION

The following changes have been made from the application that make the draft permit more stringent:

1. Due to discharges of treated domestic wastewater being made by this facility, effluent limitations for *E. coli* were placed at Outfalls 006 and 007, based on requirements in 30 TAC

§307.7(b)(1)(A). A one-year compliance period was given for the permittee to meet the effluent limitations for *E. coli* at Outfalls 006 and 007.

2. A more stringent daily maximum concentration effluent limitation for TSS of 45 mg/L was placed in the draft permit for Outfalls 006 and 007 to meet the effluent requirements for domestic wastewater receiving secondary treatment located in 30 TAC §309.4.

3. More stringent water quality-based concentration effluent limitations for total copper of 0.0197 mg/L (daily average) and 0.0416 mg/L (daily maximum) were placed in the draft permit for Outfall 005 based on comparisons in Appendix C (of this factsheet) of the calculated water quality-based concentration effluent limitations for total copper calculated in Appendix B (of this factsheet) with the existing effluent limitations for total copper.

4. More stringent water quality-based mass effluent limitations for total selenium of 0.029 lb/day (daily average) and 0.061 lb/day (daily maximum) were placed in the draft permit for Outfall 002 based on comparisons in Appendix C of the calculated water quality-based mass effluent limitations for total selenium (calculated from water quality-based concentration effluent limitations in Appendix B and the reported maximum daily average flow at Outfall 002, as reported in Section VI.A. of this fact sheet) with the existing mass effluent limitations for total selenium.

5. A more stringent water quality-based effluent limitation for total dissolved solids was placed in the permit, based on the results of screening for total dissolved solids (TDS) for discharges to an intermittent stream within 3 miles of a lake. Based on the calculations made using the formulas in screening spreadsheet, the daily maximum effluent limitation of 868 mg/L, placed at Outfall 004, is protective of the TDS level of Lake Limestone, in Segment No. 1252 of the Brazos River Basin. A single grab limit of 1500 mg/L was also placed at Outfall 004 to replace the existing single grab limit of 3000 mg/L, based on calculations using TCEQ policies and implementation procedures.

6. Other Requirement No. 12 has been added to the draft permit to indicate how the facility and its cooling water intake structure are subject to the rules and requirements in section 316(b) of the Clean Water Act and the rules and requirements for cooling water intake structures located in 40 CFR 125.

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

IX. SUMMARY OF CHANGES FROM EXISTING PERMIT

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

1. The physical address of the facility, the city name of Jewett, and the zip code have been added to the location description on page 1 of the permit, based on information provided in the application.

2. The statement "a lignite/coal fired steam-electric generating station" was added to the authorization statement on the front page of the permit, to clarify the type electric- generating facility that the Limestone Electric Generating Station is.

3. The term "low volume wastewater" as an authorized waste stream at Outfalls 001, 002, 003, 004, 005, and 008 has been changed in the permit to "low volume waste" to more accurately describe the type of waste and be consistent with the federal effluent guidelines regulating low volume waste located in 40 CFR part 423 - *Steam Electric Power Generating Point Source Category*.

4. The term "lignite coal pile runoff" as an authorized waste stream at Outfall 001 has been changed in the permit to "coal pile runoff" to be consistent with the federal effluent guidelines regulating coal pile runoff located in 40 CFR part 423 - *Steam Electric Power Generating Point Source Category*.

5. The parameters in the effluent limitations tables for Outfalls 001 and 004 have been re-ordered according to measurement frequency for clarity.

6. Because the compliance periods for meeting the water quality-based effluent limitations for total selenium (at Outfalls 001, 004, and 005) and total copper (at Outfall 005) have expired, the compliance period footnotes (*4) and (*5) at Outfall 001, (*2) and (*3) at Outfall 004, and (*3) and (*4) at Outfall 005 have been removed from the draft permit.

7. Other Requirement No. 8 of the existing permit was not included in the permit due to the requirement becoming obsolete, when the facility closed its Class III landfill, and redundant, due to the effluent limitation for barium, set forth in the requirement, being already present in the effluent limitations located in 30 TAC 319 and already required in the permit under Operational Requirements No. 2 on page 11 of the permit.

8. Other Requirement No. 16 of the existing permit is not included in the draft permit because the compliance periods for water quality-based effluent limitations for total selenium at Outfalls 001, 004, and 005 and total copper at Outfall 005 have expired.

9. Additional location description information has been added to the effluent monitoring locations for Outfalls 001, 002, 003, 004, 005, 006, 007, and 008 for clarity.

10. Other Requirements No. 3 was revised to be consistent with the rules for not discharging polychlorinated bi-phenyls (PCBs), located in 40 CFR §423.13(a).

11. The definition of "free available chlorine " in Other Requirement No. 5 was revised to be consistent with the methods for measuring "free available chlorine" provided in Table 1B of 40 CFR §136.3(a).

12. Other Requirement No. 4.c. was revised by removing the term and definition of "area runoff," because it was redundant to definition "material handling area runoff," located within the same subpart of the requirement. The term and definition of "material handling area runoff" in Other Requirement No.4.c. was revised for clarity, to indicate that the waste stream is authorized to be discharged via Outfall 002.

13. The definition of "low volume waste" in Other Requirement No. 4.e. has been revised to be consistent with the specialized definition for low volume waste located in 40 CFR §423.11

14. Foot note (*2) was added to the effluent limitations and monitoring requirements page for Outfall 002 that references definition of "normal business hours" of the facility in Other Requirement No. 4.

15. The definition of "normal working hours" was added to Other Requirement No. 4 as subpart h. to provide clarity as to which days of the week and the beginning and ending times of the day that "normal working hours" occur at the facility.

16. Other Requirement No. 10 has been added to the draft permit in accordance with the agreement reached by the TCEQ and the EPA on temperature limits in a TPDES permit.

17. Other Requirement No. 13 was placed in the draft permit, which requires the permittee to collect and submit analytical data for screening and technical review at Outfalls 001, 002, 003, 004, 005, 006, 007, and 008. Based on a technical review of the submitted analytical

results, an amendment may be initiated by TCEQ staff to include additional effluent limitations or monitoring requirements.

18. Other Requirement No. 17 has been placed in the draft permit to indicate that requirements for biomonitoring are in the permit and to indicate their location.
19. The Other Requirements section was renumbered based on changes made to the requirements.
20. Other Requirement 4.a. was revised to include an updated definition of free available chlorine, that allows testing a method which complies with methods in Table 1B in 40 CFR §136.3(a).

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 renewal of Permit No. WQ0002430000, which authorizes the discharge of low volume waste, cooling tower blowdown, coal pile runoff and bottom ash transport water at a daily maximum flow not to exceed 2.304 MGD via Outfall 001; material handling area runoff, washdown and bottom ash transport water, and low volume waste on an intermittent and flow-variable basis via Outfall 002; bottom ash transport water, low volume waste, and stormwater runoff at a daily maximum flow not to exceed 0.51 MGD via Outfall 003; bottom ash transport water, low volume waste, and stormwater runoff at a daily maximum flow not to exceed 0.432 MGD via Outfall 004; low volume waste, metal cleaning waste, bottom ash transport water, and utility wastewater at a daily maximum flow not to exceed 0.216 MGD via Outfall 005; treated domestic wastewater at a daily average flow not to exceed 0.06 MGD via Outfall 006; treated domestic wastewater at daily average flow not to exceed 0.003 MGD via Outfall 007; and bottom ash transport water and low volume waste at a daily maximum flow not to exceed 0.072 MGD via Outfall 008.

B. WATER QUALITY SUMMARY

The discharge route is via Outfalls 001, 003, and 006 to the original channel of Lynn Creek, thence to Lambs Creek, thence to Lake Limestone in Segment No. 1252 of the Brazos River Basin; via Outfalls 002, 007, and 008 to the relocated channel of Lynn Creek, thence to Lambs Creek, thence to Lake Limestone in Segment No. 1252 of the Brazos River Basin; and via Outfalls 004 and 005 to unnamed tributaries of Lambs Creek, thence to Lambs Creek, thence to Lake Limestone in Segment No. 1252 of the Brazos River Basin. The unclassified receiving waters at Lynn Creek (original), Lynn Creek (relocated), unnamed tributaries of Lambs Creek, and Lambs Creek have minimal aquatic life use. The designated uses for Segment No. 1252 are primary contact recreation, public water supply, and high aquatic life use. Effluent limitations and 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 are found at Section X.D. of this fact sheet.

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 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. 1252 is not currently listed on the State's inventory of impaired and threatened waters, Texas 2012 Clean Water Act Section 303(d) list.

C. TECHNOLOGY-BASED EFFLUENT LIMITATIONS/CONDITIONS

1. GENERAL COMMENTS

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

The discharge of low volume waste, cooling tower blowdown, coal pile runoff, and bottom ash transport water via Outfall 001; washdown and bottom ash transport water and low volume waste via Outfall 002; bottom ash transport water and low volume waste via Outfall 003; bottom ash transport water and low volume waste via Outfall 004; low volume waste, metal cleaning waste, and bottom ash transport water via Outfall 005; and bottom ash transport water and low volume waste via Outfall 008 from this facility is subject to federal effluent limitation guidelines at 40 CFR part 423 - *Steam Electric Power Generating Point Source Category*. The discharge of domestic wastewater via Outfalls 006 and 007 from this facility is subject to federal effluent limitations guidelines at 40 CFR part 133 - Secondary Treatment Regulation and 30 TAC §309.4 - Table 1, Effluent Limitations for Domestic Wastewater Treatment Plants. A new source determination was performed, and the discharge of low volume waste, cooling tower blowdown, coal pile runoff, bottom ash transport water, washdown and bottom ash transport water, metal cleaning waste, and treated domestic wastewater is a new source as defined at 40 CFR §122.2 and in an EPA memorandum dated September 28, 2006,where direct dischargers subject to the federal effluent guidelines in 40 CFR part 423 (Steam Electric Power Generating Point Source Category) are subject to new source performance standards if they began construction and started discharging after November 19, 1982. This facility was constructed and began discharging in 1983; therefore, new source performance standards (NSPS) are required for discharges from this facility.

The discharge of material handling area runoff via Outfall 002, stormwater runoff via Outfalls 003 and 004, and utility wastewater via Outfall 005 is not subject to federal effluent limitation guidelines. Development of effluent limitations in the

draft permit, including calculations and comparisons, are provided in Appendices A and C of this fact sheet.

The wastewater system at this facility consists of the following:

Outfall 001: Low volume waste, cooling tower blowdown, coal pile runoff, and bottom ash transport water are collected in retention ponds for treatment by sedimentation and equalization, where it is then either routed through a clarifier and discharged to Lynn Creek or routed for re-use in the cooling water system.

Outfall 002: Material handling area runoff, washdown and bottom ash transport water, and low volume waste are collected in a sedimentation pond for the removal of solids and equalization and then discharged either to Lynn Creek or routed for re-use in the Flue Gas Desulphurization (FGD) system. The material handling area is located within a Class 2 on-site landfill, located at the facility. The Class 2 landfill is used for disposal of coal combustion by-products, produced from burning coal to generate electricity. Material area handling runoff is composed of stormwater runoff from or through any coal, ash, or other material storage pile coming from the material handling area and is authorized to be discharged via Outfall 002.

Outfall 003: Low volume waste, bottom ash transport water, and stormwater runoff are routed to an oil/water separator and a Dissolved Air Floatation Unit for treatment and then is discharged to Lynn Creek, routed back to the stormwater treatment system for further treatment, or routed for re-use in the cooling water system.

Outfall 004: Low volume waste, bottom ash transport water, and stormwater runoff are collected and routed through a chemical waste equalization basin, a coarse pH adjustment tank, and a fine pH adjustment tank for treatment prior to either discharge to Lynn Creek or routing for re-use in the FGD system or the bottom ash transport system.

Outfall 005: Low volume waste, metal cleaning waste, bottom ash transport water, and utility wastewater are collected in an Inorganic Chemical (IC) retention basin and routed for treatment through a caustic addition tank, then to an IC clarifier, then to IC clean water pH adjustment tanks, and then to IC sand filters. The treated effluent is then either discharged to an unnamed tributary of Lynn Creek or is routed for re-use in either the FGD system or the bottom ash transport system.

Outfall 006: Domestic wastewater is collected in a surge pit and then routed through an aeration basin, a clarifier, a slot settler, a sand filter, and a chlorine contact chamber for treatment prior to being discharged to Lynn Creek or re-used by being routed to the FGD system.

Outfall 007: Domestic wastewater is collected in a surge pit and then routed through an aeration basin, a clarifier, a slot settler, a sand filter, and a chlorine contact chamber for treatment prior to being discharged to Lynn Creek or re-used by being routed to the FGD system.

Outfall 008: Low volume waste and bottom ash transport water are routed to an API separator and a Dissolved Air Floatation Unit for treatment prior to discharge to Lynn Creek.

Wastewaters routed for re-use in the flue gas desulphurization system are not discharged.

The waste stream *low volume waste* includes multiple waste streams that are taken collectively as if from one source. Low volume wastes sources from the facility include, but are not limited to the following:

Outfall 001 - Wastewaters from, but not limited to, the main plant floor drainage treatment system, recirculating house service water system blowdown, overflows from various water and wastewater systems, and other miscellaneous low volume wastes.

Outfall 002 - Wastewaters from, but not limited to, washdown water and other miscellaneous low volume wastes.

Outfall 003 - Wastewaters from, but not limited to, floor drainage and washdown water, overflows from various water and wastewater systems, and other miscellaneous low volume wastes.

Outfall 004 - Wastewaters from, but not limited to, demineralizer regenerant, laboratory and sampling streams, battery room drainage, chemical storage area drainage, and other miscellaneous low volume wastes.

Outfall 005 - Wastewaters from, but not limited to, boiler blowdown, condensate polisher powdered resin backwash, demineralizer regenerant, and other miscellaneous low volume wastes.

Outfall 008 - Wastewaters from, but not limited to, floor drainage and washdown water, overflows from various water and wastewater systems, and other miscellaneous low volume wastes.

"Other miscellaneous low volume wastes" include, but are not limited to, wastewaters from cooling tower basin cleaning , wet scrubber air pollution control systems, and any type or combination of low volume wastes listed above that are discharged via Outfalls 001, 002, 003, 004, 005, or 008.

"Demineralizer regenerant" includes wastewater from the ion exchange water treatment system and water treatment evaporator blowdown.

2. CALCULATIONS

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

D. WATER QUALITY-BASED EFFLUENT LIMITATIONS/CONDITIONS

1. GENERAL COMMENTS

The Texas Surface Water Quality Standards found at 30 TAC Chapter 307 states that "surface waters must 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 TCEQ guidance document *Procedures to*

Implement the Texas Surface Water Quality Standards (IP) is designed to ensure compliance with 30 TAC Chapter 307. Specifically, the methodology is designed to insure that no source will be allowed to discharge any wastewater that: (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 that threatens human health. Calculated water quality-based effluent limits can be found in Appendix B of this fact sheet.

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 or conditions are included. State narrative and numerical water quality standards are used in conjunction with EPA criteria and other toxicity databases to determine the adequacy of technology-based permit limits and the need for additional water quality-based controls. A comparison of technology-based effluent limits and calculated water quality-based effluent limits can be found in Appendix C of this fact sheet.

2. AQUATIC LIFE CRITERIA

a. SCREENING

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

Outfalls 001, 002, 003, and 008

There is no mixing zone or zone of initial dilution (ZID) for this discharge directly to an intermittent stream; acute freshwater criteria apply at the end of pipe. Chronic freshwater criteria do not apply to discharges to intermittent streams where there is no perennial waterbody within three miles downstream from the point of discharge. The following critical effluent percentage is being used:

Acute Effluent %: 100%

Outfalls 004 and 005

There is no mixing zone or zone of initial dilution (ZID) for this discharge directly to an intermittent stream; acute freshwater criteria apply at the end of pipe. Acute and chronic freshwater criteria are applied in the lake or reservoir.

For the intermittent stream, the percent effluent for acute protection of aquatic life is 100% since the critical low flow (7Q2) of the intermittent stream is 0.0 cfs. TCEQ uses the EPA horizontal jet plume model to estimate the dilution for acute and chronic protection of aquatic life for discharges into sections of lakes and reservoirs that are less than 200 feet wide. General assumptions used in the horizontal jet plume model are: a non-buoyant discharge, a submersed pipe, and no cross flow. The following critical effluent percentages are calculated based on the final permitted flow of <10 MGD:

Acute Effluent % (stream)	100 %
Acute Effluent % (lake)	100 %
Chronic Effluent % (lake)	100 %

Outfalls 006 and 007

Outfalls 006 and 007 discharge less than 1 MGD of treated domestic wastewater.

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 that can be discharged when after mixing in the receiving stream, the instream numerical criteria will not be exceeded. 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, chloride, pH, and total suspended solids (TSS) according to the segment-specific values contained in the *IP*. The segment values are 68 mg/L calcium carbonate ($CaCO_3$) for hardness, 20 mg/L for chloride, 7.1 standard units for pH, and 4.0 mg/L for TSS. For additional details on the calculation of water quality-based effluent limitations, refer to the *IP*.

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.

b. PERMIT ACTION

No analytical data is available for screening against water quality-based effluent limitations since the facility has not discharged for the last two years. The facility re-uses the wastewater for cooling water systems, the Flue Gas Desulphurization (FGD) system, or the bottom ash transport system.

Other Requirement No. 12 was added to the draft permit, requiring the permittee to perform sampling at Outfalls 001, 002, 003, 004, 005, 006, 007, and 008 and to submit the analytical results for screening against the calculated water quality-based effluent limitations in Appendix B. Based on a technical review of the submitted analytical results, an amendment may be initiated by TCEQ staff to include additional effluent limitations and monitoring requirements.

A more stringent water quality-based effluent limitation for total dissolved solids (TDS) of 868 mg/L daily maximum has been placed at Outfall 004, based on the results of TDS screening located in Appendix B of the fact sheet, which has determined that the existing effluent limit of 3000 mg/L is not protective of the water quality of Lake Limestone.

3. AQUATIC ORGANISM TOXICITY CRITERIA

a. SCREENING

The existing permit includes 48-hour acute freshwater biomonitoring requirements at Outfall 001. There have not been any discharges made via Outfall 001 during the term of the existing permit; therefore, no biomonitoring tests have been performed by the permittee. Forty-eight-hour acute freshwater biomonitoring conditions required for EPA classified major facilities are proposed in the draft permit as outlined below.

b. PERMIT ACTION

The provisions of this section apply to Outfall 001.

Based on information contained in the permit application, the TCEQ has determined that there may be pollutants present in the effluent(s) that 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) Acute static renewal 48-hour definitive toxicity tests using a water flea (*Ceriodaphnia dubia or Daphnia pulex*). The frequency of the testing is once per quarter.

ii) Acute static renewal 48-hour definitive toxicity tests using fathead minnow (*Pimephales promelas*). The frequency of the testing shall be once per quarter.

Toxicity tests shall be performed in accordance with protocols described in *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms, Fourth Edition* (EPA-821-R-02-013) or the latest revision. 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, 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.

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.

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

a. SCREENING

The existing permit includes 24-hour acute freshwater biomonitoring language for Outfall 001. Minimum 24-hour acute freshwater biomonitoring requirements are proposed in the draft permit as outlined below.

b. PERMIT ACTION

Twenty-four-hour 100% acute biomonitoring tests are required at Outfall 001 at a frequency of once per six months for the life of the permit.

The biomonitoring procedures stipulated as a condition of this permit are as follows:

i) Acute 24-hour static toxicity test using the water flea or (*Daphnia pulex* or *Ceriodaphnia dubia*). 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 fathead minnow (*Pimephales promelas*). A minimum of five (5) replicates with eight (8) organisms per replicate shall be used for this test.

Toxicity tests shall be performed in accordance with protocols described in *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 revision.

5. AQUATIC ORGANISM BIOACCUMULATION CRITERIA

a. SCREENING

Outfalls 001, 002, 003, and 008

The discharge point is located at a distance greater than three miles upstream of perennial waters. Human health screening is not applicable because of the distance between the discharge point and perennial waters that support fisheries.

Outfalls 004 and 008

Water quality-based effluent limitations for the protection of human health are calculated using criteria for the consumption of fish tissue found in Table 2 of the Texas Surface Water Quality Standards (30 TAC Chapter

307). Fish tissue bioaccumulation criteria are applied in the lake or reservoir for a discharge to an intermittent stream that enters the lake or reservoir within 3 miles downstream of the discharge point. TCEQ uses the EPA horizontal jet plume model to estimate dilution for discharges into sections of lakes or reservoirs that are less than 200 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%

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

No analytical data is available for screening against water quality-based effluent limitations since the facility has not discharged for the last two years. The facility re-uses the wastewater for cooling water systems, the FGD system, or the bottom ash transport system.

Other Requirement No. 13 was added to the draft permit requiring the permittee to perform sampling at Outfalls 001, 002, 003, 004, 005, 006, 007, and 008 and to submit the analytical results for screening against the calculated water quality-based effluent limitations in Appendix B. Based on a technical review of the submitted analytical results, an amendment may be initiated by TCEQ staff to include additional effluent limitations and/or monitoring requirements.

6. DRINKING WATER SUPPLY PROTECTION

a. SCREENING

Water Quality Segment No. 1252, which receives discharges from this facility, is designated as a public water supply. No analytical data was submitted with the application for Outfalls 001, 002, 003, 004, 005, 006, 007 and 008 since the facility has not discharged for the last two years. Analytical data will be screened with the calculated water quality-based effluent limitations (see Appendix B) to determine if effluent limits need to be added to the permit for the protection of public water supply.

b. PERMIT ACTION

Other Requirement No. 12 was added to the draft permit requiring the permittee to perform sampling at Outfalls 001, 002, 003, 004, 005, 006, 007, and 008. Analytical data will be screened with the calculated water

quality-based effluent limitations (see Appendix B) to determine if effluent limits need to be added to the permit for the protection of public water supply. Based on a technical review of the submitted analytical results, an amendment may be initiated by TCEQ staff to include additional effluent limitations and/or monitoring requirements.

7. BACTERIA PROTECTION

a. SCREENING

The existing permit indicates, and the permittee reported in the application, that the facility treats, monitors, and discharges treated domestic wastewater via Outfalls 006 and 007.

b. PERMIT ACTION

Effluent limitations for *E. coli* were placed at Outfalls 006 and 007 based on rules and requirements located at 30 TAC §§307.7(b)(1)(A) and 309.3(h).

A one-year compliance period is being established for meeting the effluent limitations for *E. coli* at Outfalls 006 and 007 based on rules located at 30 TAC §307.2(f).

The following water quality-based effluent limitations for *E. coli* were placed in the draft permit for Outfalls 006 and 007 for the protection of human health based on rules located in 30 TAC§309.3(h) and effluent requirements in 30 TAC 307.7(b)(1)(A)(i):

Parameter	Daily Avg	Daily Max
E. coli (*1)	Report (*3)	Report (*3)
E. coli (*2)	126 (*3)	399 (*3)

(*1) Effective beginning upon the date of permit issuance and lasting 364 days.

(*2) Effective beginning 365 days from the date of permit issuance and lasting through the date of permit expiration.

(*3) Colonies per 100 milliliters or Most Probable Number (cols/100 mls or MPN)

8. TEMPERATURE PROTECTION

The existing temperature limits of 93°F at Outfall 001 have been continued in the draft permit. However, Other Requirement No. 10 has been added to the draft permit in accordance with the agreement reached by the TCEQ and the EPA in their April 29, 2014 and May 12, 2014 letters, respectively. Temperature limits may be revised at a future date.

E. COOLING WATER INTAKE STRUCTURE

a. SCREENING

The facility operates a cooling water intake structure (CIWS) that meets the applicability requirements located in 40 CFR §125.80(a) and is required to operate the CIWS in a manner that meets the requirements for Best Technology Available (BTA) for minimizing adverse environmental impact (AI) to the aquatic life in the receiving water body. Using the "Determination of BPJ-based Section

316(b) Permit Conditions" screening for a CIWS, located in Appendix B of the fact sheet, based on BPJ, the CIWS for the facility currently meets Best Technology Available (BTA) for minimizing adverse environmental impact (AI) to the aquatic life in Lake Limestone, Segment No. 1252 of the Brazos River Basin.

b. PERMIT ACTION

Other Requirement No. 12 was placed in the permit to provide information and requirements for how the facility's cooling water intake structure (CIWS) is subject to the rules and requirements in section 316(b) of the Clean Water Act and how the facility meets BTA for minimizing AEI at a Phase II CIWS.

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 reviewing 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, the 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.

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.

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 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 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 Gordon Cooper at (512) 239-1963.

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

TCEQ Permit No. WQ0002430000 issued on December 15, 2009

B. APPLICATION

TPDES wastewater permit application received on May 23, 2013.

C. 40 CFR CITATIONS

40 CFR 423 - *Steam Electric Power Generating Point Source Category*

40 CFR 133 - *Secondary Treatment Regulation*

D. LETTERS/MEMORANDA/RECORDS OF COMMUNICATION

Mr. James Michalk, Water Quality Assessment Team, Water Quality Division, Modeling Memo dated July 24, 2013

Ms. Nancy Vignali, Water Quality Assessment Team, Water Quality Division, Critical Conditions Memo, dated July 11, 2013

Ms. Brittany M. Lee, Standards Implementation Team, Water Quality Division, Standards Memo, dated May 23, 2013

Mr. Michael B. Pfeil, Standards Implementation Team, Water Quality Division, Biomonitoring Memo, dated July 25, 2013

E-mails from Mr. Robert Eyeington, NRG Texas Power LLC, dated August 28, 2013, January 13, 2014, February 6, 2014, February 10, 2014, February 19, 2014, February 24, 2014, and March 19, 2014; and Mr. Ted Long, NRG Texas Power LLC, dated December 13, 2013.

Telephone conversation with Mr. Robert Eyeington, NRG Texas Power LLC, dated March 18, 2014

Letter dated April 29, 2014, from L'Oreal W. Stepney, P.E., Deputy Director, Office of Water, TCEQ, to Bill Honker, Director, Water Quality Protection Division, EPA (TCEQ proposed development strategy for thermal evaluation procedures)

Letter dated May 12, 2014, from William K. Honker, P.E., Director, Water Quality Protection Division, EPA, to L'Oreal W. Stepney, P.E., Deputy Director, Office of Water, TCEQ (Approval of TCEQ proposed development strategy for thermal evaluation procedures)

E. MISCELLANEOUS

The State of Texas 2012 Integrated Report – Texas 303(d) List (Category 5), TCEQ, approved by EPA Region 6 on May 9, 2013.

Texas Surface Water Quality Standards, 30 TAC §§307.1 - 307.10, TCEQ, effective July 22, 2012, as approved by EPA Region 6.

Texas Surface Water Quality Standards, 30 TAC §§307.1 - 307.10, TCEQ, effective August 17, 2000, and Appendix E, effective February 27, 2002, for portions of the 2010 Standards not yet approved by EPA Region 6.

Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms, Fourth Edition (EPA-821-R-02-013).

Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms, Fifth Edition, (EPA-821-R-02-012).

Procedures to Implement the Texas Surface Water Quality Standards, TCEQ, June 2010, as approved by EPA Region 6.

Procedures to Implement the Texas Surface Water Quality Standards, TCEQ, January 2003, for portions of the 2010 IP not approved by EPA Region 6.

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

Technology-Based Effluent Limits

NRG Texas Power LLC operates the Limestone Electric Generating Station. The Limestone Electric Generating Station consists of two coal-fired electric generating units, which currently burn lignite coal and Powder River sub-bituminous coal for electrical generation. The combined generating capacity from the two units is 1803 megawatts.

The Limestone Electric Generating Station is subject to New Source Performance Standards (NSPS).

The discharge of low volume waste, cooling tower blowdown, coal pile runoff and bottom ash transport water via Outfall 001; material handling area runoff, washdown and bottom ash transport water, and low volume waste via Outfall 002; bottom ash transport water, low volume waste via Outfall 003; bottom ash transport water, low volume waste via Outfall 004; low volume waste, metal cleaning waste, bottom ash transport water via Outfall 005; and bottom ash transport water and low volume waste via Outfall 008 are subject to effluent limitations guidelines at 40 CFR 423 - *Steam Electric Power Generating Point Source Category (NSPS).*

The discharge of treated domestic wastewater via Outfalls 006 and 007 are subject to effluent limitations guidelines at 40 CFR 133 - *Secondary Treatment Regulation* and 30 TAC 309.4-Domestic Wastewater Treatment Limitations.

The discharge of material handling area runoff via Outfall 002, stormwater runoff via Outfalls 003 and 004, and utility wastewater via Outfall 005 are not subject to federal effluent limitation guidelines.

The basis and application of technology-based effluent limitations in the permit are as follows:

Outfall 001:

a. The discharge of low volume waste is subject to new source performance standards (NSPS)-40 CFR 423.15(c).

Parameter	Daily Average	Daily Maximum
Total Suspended Solids	30 mg/L	100 mg/L
Oil and Grease	15 mg/L	20 mg/L

b. The discharge of cooling tower blowdown is subject to NSPS-40 CFR 423.15 (h)(2)(i)(1).

Parameter	Daily Average	Daily Maximum
Free Available Chlorine	0.2 mg/L	0.5 mg/L

c. The discharge of bottom ash transport water is subject to NSPS-40 CFR 423.15(f).

Parameter	Daily Average	Daily Maximum
Total Suspended Solids	30 mg/L	100 mg/L
Oil and Grease	15 mg/L	20 mg/L

d. The discharge of coal pile runoff is subject to NSPS 40 CFR 423.15 (k).

Parameter	Daily Average	Daily Maximum
Total Suspended Solids	N/A	50 mg/L

The coal pile runoff is collected in a retention pond for treatment by sedimentation and equalization. Under 40 CFR 423.15 (l), the overflow from a stormwater detention pond designed to treat the runoff from a 10-year, 24 hour storm is not subject to the limitations in 40 CFR 423.15 (k).

e. Effluent Limitations for pH are based on NSPS 40 CFR 423.15(a). The pH of all discharges, except once through cooling water, shall be within the range of 6.0 and 9.0 standard units (SU).

Technology based limitations included in the permit at Outfall 001 as follows:

Parameter	Daily Average	Daily Maximum
Total Suspended Solids	30 mg/L	100 mg/L
Oil and Grease	15 mg/L	20 mg/L
Free Available Chlorine	0.2 mg/L	0.5 mg/L
pH	Between 6.0 and 9.0 S.U.	

Outfall 002:

a. The discharge of low volume waste is subject to new source performance standards (NSPS)-40 CFR 423.15(c).

Parameter	Daily Average	Daily Maximum
Total Suspended Solids	30 mg/L	100 mg/L
Oil and Grease	15 mg/L	20 mg/L

b. The discharge of bottom ash transport water is subject to NSPS-40 CFR 423.15(f).

Parameter	Daily Average	Daily Maximum
Total Suspended Solids	30 mg/L	100 mg/L
Oil and Grease	15 mg/L	20 mg/L

c. Effluent Limitations for pH are based on NSPS 40 CFR 423.15(a). The pH of all discharges, except once through cooling water, shall be within the range of 6.0 and 9.0 standard units (SU).

Technology based limitations included in the permit at Outfall 002 as follows:

Parameter	Daily Average	Daily Maximum
Total Suspended Solids	30 mg/L	50 mg/L
Oil and Grease	15 mg/L	20 mg/L
pH	Between 6.0 and 9.0 S.U.	

Outfall 003:

a. The discharge of low volume waste is subject to new source performance standards (NSPS)-40 CFR 423.15(c).

Parameter	Daily Average	Daily Maximum
Total Suspended Solids	30 mg/L	100 mg/L
Oil and Grease	15 mg/L	20 mg/L

b. The discharge of bottom ash transport water is subject to NSPS-40 CFR 423.15(f).

Parameter	Daily Average	Daily Maximum
Total Suspended Solids	30 mg/L	100 mg/L
Oil and Grease	15 mg/L	20 mg/L

c. Effluent Limitations for pH are based on NSPS 40 CFR 423.15(a). The pH of all discharges, except once through cooling water, shall be within the range of 6.0 and 9.0 standard units (SU).

Technology based limitations included in the permit at Outfall 003 as follows:

Parameter	Daily Average	Daily Maximum
Total Suspended Solids	30 mg/L	100 mg/L
Oil and Grease	15 mg/L	20 mg/L
pH	Between 6.0 and 9.0 S.U.	

Outfall 004:

a. The discharge of low volume waste is subject to new source performance standards (NSPS)-40 CFR 423.15(c).

Parameter	Daily Average	Daily Maximum
Total Suspended Solids	30 mg/L	100 mg/L
Oil and Grease	15 mg/L	20 mg/L

b. The discharge of bottom ash transport water is subject to NSPS-40 CFR 423.15(f).

Parameter	Daily Average	Daily Maximum
Total Suspended Solids	30 mg/L	100 mg/L
Oil and Grease	15 mg/L	20 mg/L

c. Effluent Limitations for pH are based on NSPS 40 CFR 423.15(a). The pH of all discharges, except once through cooling water, shall be within the range of 6.0 and 9.0 standard units (SU).

Technology based limitations included in the permit at Outfall 004 as follows:

Parameter	Daily Average	Daily Maximum
Total Suspended Solids	30 mg/L	100 mg/L
Oil and Grease	15 mg/L	20 mg/L
pH	Between 6.0 and 9.0 S.U.	

Outfall 005:

a. The discharge of low volume waste is subject to new source performance standards (NSPS)-40 CFR 423.15(c).

Parameter	Daily Average	Daily Maximum
Total Suspended Solids	30 mg/L	100 mg/L
Oil and Grease	15 mg/L	20 mg/L

b. The discharge of bottom ash transport water is subject to NSPS-40 CFR 423.15(f).

Parameter	Daily Average	Daily Maximum
Total Suspended Solids	30 mg/L	100 mg/L
Oil and Grease	15 mg/L	20 mg/L

c. The discharge of metal cleaning waste is subject to NSPS-40 CFR 423.15(d).

Parameter	Daily Average	Daily Maximum
Total Suspended Solids	30 mg/L	100 mg/L
Oil and Grease	15 mg/L	20 mg/L
Copper, Total	1.0 mg/L	1.0 mg/L
Iron, Total	1.0 mg/L	1.0 mg/L

The calculated water quality-based effluent limits (APPENDIX B) for total copper limits are more stringent than the technology based. Therefore, effluent limits for total copper established in the draft permit are based on water-quality effluent limitations.

d. Effluent Limitations for pH are based on NSPS 40 CFR 423.15(a). The pH of all discharges, except once through cooling water, shall be within the range of 6.0 and 9.0 standard units (SU).

Technology based limitations included in the permit at Outfall 005 as follows:

Parameter	Daily Average	Daily Maximum
Total Suspended Solids	30 mg/L	100 mg/L
Oil and Grease	15 mg/L	20 mg/L
Iron, Total	1.0 mg/L	1.0 mg/L
pH	Between 6.0 and 9.0 S.U.	

Outfalls 006 and 007

a. The discharge of treated domestic wastewater is subject to 40 CFR §133.102-Secondary Treatment Regulation and 30 TAC 309-Domestic Wastewater Effluent Limitations.

40 CFR 133.102

Parameter	Daily Average
Biochemical Oxygen Demand (5-day)	30 mg/L
Total Suspended Solids	30 mg/L
pH	Between 6.0 and 9.0 S.U.

30 TAC §309.4

Parameter	Daily Average	Daily Maximum
Biochemical Oxygen Demand (5-day)	20 mg/L	45 mg/L
Total Suspended Solids	20 mg/L	45 mg/L

b. The effluent shall contain a chlorine residual of at least 1.0 mg/L and shall not exceed a chlorine residual of 4.0 mg/L after a detention time of at least 20 minutes (based on peak flow), and shall be monitored daily, when discharging domestic wastewater, by grab sample. An equivalent method of disinfection may be substituted only with prior approval of the Executive Director.

Technology based limitations included in the permit at Outfalls 006 and 007 as follows:

Parameter	Daily Average	Daily Maximum
Biochemical Oxygen Demand (5-day)	10 mg/L	35 mg/L
Total Suspended Solids	15 mg/L	40 mg/L
Chlorine Residual	1.0 mg/L (min)	4.0 mg/L (max)
pH	Between 6.0 and 9.0 S.U.	

Outfall 008:

a. The discharge of low volume waste is subject to new source performance standards (NSPS)-40 CFR 423.15(c).

Parameter	Daily Average	Daily Maximum
Total Suspended Solids	30 mg/L	100 mg/L
Oil and Grease	15 mg/L	20 mg/L

b. The discharge of bottom ash transport water is subject to NSPS-40 CFR 423.15(f).

Parameter	Daily Average	Daily Maximum
Total Suspended Solids	30 mg/L	100 mg/L
Oil and Grease	15 mg/L	20 mg/L

c. Effluent Limitations for pH are based on NSPS 40 CFR 423.15(a). The pH of all discharges, except once through cooling water, shall be within the range of 6.0 and 9.0 standard units (SU).

Technology based limitations included in the permit at Outfall 008 as follows:

Parameter	Daily Average	Daily Maximum
Total Suspended Solids	30 mg/L	100 mg/L
Oil and Grease	15 mg/L	20 mg/L
pH	Between 6.0 and 9.0 S.U.	

Determination of BPJ-Based Section 316(b) Permit Conditions

On August 13, 2014, EPA issued its final Cooling Water Intake Structure (CWIS) 316(b) Rule, which was posted in the Federal Register on August 15, 2014. This rule establishes requirements under section 316(b) of the Clean Water Act (CWA) for all existing power generating facilities and existing manufacturing and industrial facilities which are a point source that withdraw more than 2 million gallons per day (MGD) of water from waters of the U.S. through a cooling water intake structure and use at least twenty-five (25) percent of the water they withdraw exclusively for cooling purposes. This rule is implemented through National Pollutant Discharge Elimination System (NPDES) permits and establishes national requirements applicable to the location, design, construction, and capacity of cooling water intake structures at these facilities by setting requirements that reflect the Best Technology Available (BTA) for minimizing adverse environmental impact. A TPDES permit for any new or existing facility operating a cooling water intake structure (CWIS) must contain permit conditions meeting the requirements applicable to a CWIS under section 316(b) of the CWA.

The CWIS for NRG Texas Power LLC Limestone Electric Generating Station (the permittee) was constructed to supply cooling water, drawn from Lake Limestone, to the cooling system (cooling towers) for the facility. The CWIS meets the definition of an *Existing Facility* located in 40 CFR §125.92 and the applicability requirements in 40 CFR §125.91(a). The CWIS meets the requirements for an existing facility as it was built and placed into service before January 17, 2002 and no modifications of, or any additions to, the CWIS have been made.

The new rules for compliance located in 40 CFR §125.93 state that the owner or operator of a CWIS with a design intake flow (DIF) greater than 2 MGD is subject to the BTA standards for impingement and must comply with the applicable standards located in 40 CFR §125.94(b) as soon as possible, based on the schedule of requirements set by the Director, but in no event later than [date 8 years after the effective date of the final rule]. The new rules for compliance located in 40 CFR §125.93 also state that the owner or operator of a facility subject to the BTA standards for entrainment mortality must comply with the applicable standards located in 40 CFR §125.94(c) as soon as possible, based on the schedule of requirements set by the Director.

Based on information supplied by the permittee, the TCEQ has determined that the CWIS operated by the permittee meets the new BTA standards for impingement mortality, by having a designed maximum through-screen intake velocity of 0.3 ft/sec; by operating its CWIS with actual intake velocity of 0.3 ft/sec (or less) and by employing the use of a passive screen system at the intake of the CWIS.

Based on BPJ, the TCEQ has made a preliminary determination that the CWIS operated by the permittee meets the new BTA standards for entrainment mortality by operating its cooling system, at a flow commensurate with a closed-cycle recirculating system. This is accomplished through the operation of cooling towers and by recycling the wastewater back into the facility's cooling water system. A requirement for submitting additional information to meet the requirements of 40 CFR §125.98 and 40 CFR §122.21(r) was placed in Other Requirements No. 12 of the draft permit. If with the additional information submitted by the permittee to meet the requirements of 40 CFR §125.98 and 40 CFR §122.21(r), it is later determined that the current CWIS configuration is not representative of BTA for minimizing AEI, this permit may be reopened to incorporate additional requirements.

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

Appendix B

Calculated Water Quality-Based Effluent Limits

Outfalls 001, 002, 003, and 008

TEXTOX MENU #1 - INTERMITTENT STREAM

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

Table 1, 2010 Texas Surface Water Quality Standards (30 TAC 307) for Freshwater Aquatic Life
"Procedures to Implement the Texas Surface Water Quality Standards," Texas Commission on Environmental Quality, January 2003
"Procedures to Implement the Texas Surface Water Quality Standards," Appendix D, Texas Commission on Environmental Quality, June 2010

PERMIT INFORMATION

TPDES Permit No:	WQ0002430000
Permittee Name:	NRG Texas Power LLC
Outfall No:	001, 002, 003, and 008
Prepared By:	Gordon Cooper
Date:	July 26, 2013

DISCHARGE INFORMATION

Intermittent Receiving Waterbody:	Lynn Creek
Segment No:	1252
TSS (mg/L):	4
pH (Standard Units):	7.4
Hardness (mg/L as $CaCO_3$):	68
Chloride (mg/L):	20
Effluent Flow for Aquatic Life (MGD):	0.204
Critical Low Flow [7Q2] (cfs):	0
Percent Effluent for Acute Aquatic Life:	100

CALCULATE DISSOLVED FRACTION (AND ENTER WATER EFFECT RATIO IF APPLICABLE):

Stream/River Metal	*Intercept (b)*	*Slope (m)*	*Partition Coefficient (Kp)*	*Dissolved Fraction (Cd/Ct)*		*Water Effect Ratio (WER)*	
Aluminum	N/A	N/A	N/A	1.00	Assumed	1	Assumed
Arsenic	5.68	-0.730	173979	0.590		1	Assumed
Cadmium	6.60	-1.13	831136	0.231		1	Assumed
Chromium (Total)	6.52	-0.930	912188	0.215		1	Assumed
Chromium (+3)	6.52	-0.930	912188	0.215		1	Assumed
Chromium (+6)	N/A	N/A	N/A	1.000	Assumed	1	Assumed
Copper	6.02	-0.740	375384	0.400		1	Assumed
Lead	6.45	-0.800	929720	0.212		1	Assumed
Mercury	N/A	N/A	N/A	1.00	Assumed	1	Assumed
Nickel	5.69	-0.570	222242	0.529		1	Assumed
Selenium	N/A	N/A	N/A	1.00	Assumed	1	Assumed
Silver	6.38	-1.03	575279	0.303		1	Assumed
Zinc	6.10	-0.700	477044	0.344		1	Assumed

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
Appendix B

AQUATIC LIFE

CALCULATE DAILY AVERAGE AND DAILY MAXIMUM EFFLUENT LIMITATIONS:

Parameter	*FW Acute Criterion (ug/L)*	*WLAa*	*LTAa*	*Daily Avg. (ug/L)*	*Daily Max. (ug/L)*
Aldrin	3.00	3.00	1.72	2.53	5.35
Aluminum	991	991	568	835	1766
Arsenic	340	577	330	486	1028
Cadmium	5.90	25.5	14.6	21.5	45.5
Carbaryl	2.00	2.00	1.15	1.68	3.56
Chlordane	2.40	2.40	1.38	2.02	4.28
Chlorpyrifos	0.083	0.083	0.048	0.070	0.148
Chromium (+3)	415	1931	1107	1627	3442
Chromium (+6)	15.7	15.7	9.00	13.2	28.0
Copper	9.9	24.7	14.2	20.8	44.0
Cyanide	45.8	45.8	26.2	38.6	81.6
4,4'-DDT	1.10	1.10	0.630	0.927	1.96
Demeton	N/A	N/A	N/A	N/A	N/A
Diazinon	0.170	0.170	0.097	0.143	0.303
Dicofol	59.3	59.3	34.0	49.9	106
Dieldrin	0.240	0.240	0.138	0.202	0.428
Diuron	210	210	120	177	374
Endosulfan I (alpha)	0.220	0.220	0.126	0.185	0.392
Endosulfan II (beta)	0.220	0.220	0.126	0.185	0.392
Endosulfan sulfate	0.220	0.220	0.126	0.185	0.392
Endrin	0.086	0.086	0.049	0.072	0.153
Guthion	N/A	N/A	N/A	N/A	N/A
Heptachlor	0.520	0.520	0.298	0.438	0.927
Hexachlorocyclohexane (Lindane)	1.13	1.13	0.645	0.948	2.01
Lead	42.3	200	114	168	356
Malathion	N/A	N/A	N/A	N/A	N/A
Mercury	2.40	2.40	1.38	2.02	4.28
Methoxychlor	N/A	N/A	N/A	N/A	N/A
Mirex	N/A	N/A	N/A	N/A	N/A
Nickel	338	638	366	538	1137
Nonylphenol	28.0	28.0	16.0	23.6	49.9
Parathion (ethyl)	0.065	0.065	0.037	0.055	0.116
Pentachlorophenol	13.0	13.0	7.47	11.0	23.2
Phenanthrene	30.0	30.0	17.2	25.3	53.5
Polychlorinated Biphenyls (PCBs)	2.00	2.00	1.15	1.68	3.56
Selenium	20.0	20.0	11.5	16.8	35.6
Silver (free ion)	0.800	5.70	3.27	4.80	10.16
Toxaphene	0.780	0.780	0.447	0.657	1.39
Tributyltin (TBT)	0.130	0.130	0.074	0.110	0.232
2,4,5 Trichlorophenol	136	136	77.9	115	242
Zinc	84.5	246	141	207	438

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

Aquatic Life

Parameter	*70%*	*85%*
Aldrin	1.77	2.15
Aluminum	584	710
Arsenic	340	413
Cadmium	15.0	18.3
Carbaryl	1.18	1.43

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
Appendix B

Chlordane	1.42	1.72
Aquatic Life		
Parameter	***70%***	***85%***
Chlorpyrifos	0.049	0.059
Chromium (+3)	1139	1383
Chromium (+6)	9.26	11.2
Copper	14.6	17.7
Cyanide	27.0	32.8
4,4'-DDT	0.649	0.788
Demeton	N/A	N/A
Diazinon	0.100	0.122
Dicofol	35.0	42.5
Dieldrin	0.142	0.172
Diuron	124	150
Endosulfan I (alpha)	0.130	0.158
Endosulfan II (beta)	0.130	0.158
Endosulfan sulfate	0.130	0.158
Endrin	0.051	0.062
Guthion	N/A	N/A
Heptachlor	0.307	0.372
Hexachlorocyclohexane (Lindane)	0.664	0.806
Lead	118	143
Malathion	N/A	N/A
Mercury	1.42	1.72
Methoxychlor	N/A	N/A
Mirex	N/A	N/A
Nickel	376	457
Nonylphenol	16.5	20.0
Parathion (ethyl)	0.038	0.047
Pentachlorophenol	7.69	9.34
Phenanthrene	17.7	21.5
Polychlorinated Biphenyls (PCBs)	1.18	1.43
Selenium	11.8	14.3
Silver (free ion)	3.36	4.08
Toxaphene	0.460	0.558
Tributyltin (TBT)	0.077	0.093
2,4,5 Trichlorophenol	80.2	97.4
Zinc	145	176

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

Appendix B

Calculated Water Quality-Based Effluent Limits

Outfalls 004 and 005

TEXTOX MENU #8 - INTERMITTENT STREAM WITHIN 3 MILES OF A LAKE/RESERVOIR

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

Table 1, 2010 Texas Surface Water Quality Standards (30 TAC 307) for Freshwater Aquatic Life
Table 2, 2010 Texas Surface Water Quality Standards for Human Health (except Mercury)
Table 3, 2000 Texas Surface Water Quality Standards for Human Health (Mercury)
"Procedures to Implement the Texas Surface Water Quality Standards," Texas Commission on Environmental Quality, June 2010
"Procedures to Implement the Texas Surface Water Quality Standards," Appendix D, Texas Commission on Environmental Quality, June 2010.

PERMIT INFORMATION

Permittee Name:	NRG Texas Power LLC
TPDES Permit No:	WQ0002430000
Outfall No:	004 and 005
Prepared by:	Gordon Cooper
Date:	July 26, 2013

DISCHARGE INFORMATION

Intermittent Receiving Waterbody:	Lynn Creek	
TSS (mg/L) (Intermittent):	4	
pH (Standard Units) (Intermittent):	7.4	
Hardness (mg/L as $CaCO_3$) (Intermittent):	68	
Chloride (mg/L) (Intermittent):	20	
Effluent Flow for Aquatic Life (MGD)	0.437	used permitted value
Percent Effluent for Zone of Initial Dilution:	100	
Lake/Reservoir within 3 miles:	Lake Limestone	
Segment No.:	1252	
TSS (mg/L) (Lake/Reservoir):	4	
pH (Standard Units) (Lake/Reservoir):	7.4	
Hardness (mg/L as CaCO3) (Lake/Reservoir):	68	
Chloride (mg/L) (Lake/Reservoir):	20	
Percent Effluent for Mixing Zone:	100	
Percent Effluent for Zone of Initial Dilution:	100	
Effluent Flow for Human Health (MGD):	<10	
Percent Effluent for Human Health:	100	
Public Water Supply Use?:	yes	

CALCULATE DISSOLVED FRACTION (AND ENTER WATER EFFECT RATIO IF APPLICABLE):

Stream/River Metal	*Intercept (b)*	*Slope (m)*	*Partition Coefficient (Kp)*	*Dissolved Fraction (Cd/Ct)*		*Water Effect Ratio (WER)*	
Aluminum	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Arsenic	5.68	-0.730	173979	0.590		1.00	Assumed
Cadmium	6.60	-1.13	831136	0.231		1.00	Assumed
Chromium (Total)	6.52	-0.930	912188	0.215		1.00	Assumed

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
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Stream/River Metal	*Intercept (b)*	*Slope (m)*	*Partition Coefficient (Kp)*	*Dissolved Fraction (Cd/Ct)*		*Water Effect Ratio (WER)*	
Chromium (+3)	6.52	-0.930	912188	0.215		1.00	Assumed
Chromium (+6)	N/A	N/A	N/A	1.000	Assumed	1.00	Assumed
Copper	6.02	-0.740	375384	0.400		1.00	Assumed
Lead	6.45	-0.800	929720	0.212		1.00	Assumed
Mercury	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Nickel	5.69	-0.570	222242	0.529		1.00	Assumed
Selenium	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Silver	6.38	-1.03	575279	0.303		1.00	Assumed
Zinc	6.10	-0.700	477044	0.344		1.00	Assumed

Lake Metal	*Intercept (b)*	*Slope (m)*	*Partition Coefficient (Kp)*	*Dissolved Fraction (Cd/Ct)*		*Water Effect Ratio (WER)*	
Aluminum	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Arsenic	5.68	-0.730	173979	0.590		1.00	Assumed
Cadmium	6.55	-0.920	991071	0.201		1.00	Assumed
Chromium (Total)	6.34	-0.270	1504679	0.142		1.00	Assumed
Chromium (+3)	6.34	-0.270	1504679	0.142		1.00	Assumed
Chromium (+6)	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Copper	6.45	-0.900	809368	0.236		1.00	Assumed
Lead	6.31	-0.530	979283	0.203		1.00	Assumed
Mercury	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Nickel	6.34	-0.760	762842	0.247		1.00	Assumed
Selenium	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Silver	6.38	-1.03	575279	0.303		1.00	Assumed
Zinc	6.52	-0.680	1290028	0.162		1.00	Assumed

CONVERT TISSUE-BASED CRITERIA TO WATER COLUMN CRITERIA:

Parameter	*Water and Fish Criterion (ug/kg)*	*Fish Only Criterion (ug/kg)*	*BCF (l/kg)*	*Water and Fish Criterion (ug/L)*	*Fish Only Criterion (ug/L)*
4,4'-DDD	166	166	53600	0.0031	0.0031
4,4'-DDE	214	214	53600	0.0040	0.0040
4,4'-DDT	209	209	53600	0.0039	0.0039
Dioxins/Furans	0.00040	0.00040	5000	8.00E-08	8.00E-08
Mercury					
Polychlorinated Biphenyls (PCBs)	20.0	20.0	31200	6.40E-04	6.40E-04

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
Appendix B

AQUATIC LIFE

CALCULATE DAILY AVERAGE AND DAILY MAXIMUM EFFLUENT LIMITATIONS:

Parameter	*FW Acute Criterion (Int. stream) (ug/L)*	*FW Acute Criterion (lake) (ug/L)*	*FW Chronic Criterion (lake) (ug/L)*	*WLAa (Int. stream)*	*WLAa (lake)*	*WLAc (lake)*	*LTAa (int. stream)*	*LTAa (lake)*	*LTAc (lake)*	*Daily Avg. (ug/L)*	*Daily Max. (ug/L)*
Aldrin	3.00	3.00	N/A	3.00	3.00	N/A	1.72	0.960	N/A	1.41	2.99
Aluminum	991	991	N/A	991	991	N/A	568	317	N/A	466	986
Arsenic	340	340	150	577	577	254	330	185	155	228	483
Cadmium	5.90	5.90	0.188	25.5	29.3	0.934	14.6	9.37	0.570	0.837	1.77
Carbaryl	2.00	2.00	N/A	2.00	2.00	N/A	1.15	0.640	N/A	0.941	1.99
Chlordane	2.40	2.40	0.0040	2.40	2.40	0.0040	1.38	0.768	0.0024	0.0036	0.0076
Chlorpyrifos	0.083	0.083	0.041	0.083	0.083	0.041	0.048	0.027	0.025	0.037	0.078
Chromium (+3)	415	415	54.0	1931	2916	379	1107	933	231	340	720
Chromium (+6)	15.7	15.7	10.6	15.7	15.7	10.6	9.00	5.02	6.47	7.39	15.6
Copper	9.87	9.87	6.81	24.7	41.8	28.9	14.2	13.4	17.6	19.7	41.6
Cyanide	45.8	45.8	10.7	45.8	45.8	10.7	26.2	14.7	6.53	9.59	20.3
4,4'-DDT	1.10	1.10	0.0010	1.10	1.10	0.0010	0.630	0.352	0.00061	0.00090	0.0019
Demeton	N/A	N/A	0.100	N/A	N/A	0.100	N/A	N/A	0.061	0.090	0.190
Diazinon	0.170	0.170	0.170	0.170	0.170	0.170	0.097	0.054	0.104	0.080	0.169
Dicofol	59.3	59.3	19.8	59.3	59.3	19.8	34.0	19.0	12.1	17.8	37.6
Dieldrin	0.240	0.240	0.0020	0.240	0.240	0.0020	0.138	0.077	0.0012	0.0018	0.0038
Diuron	210	210	70.0	210	210	70.0	120	67.2	42.7	62.8	132.8
Endosulfan I (alpha)	0.220	0.220	0.056	0.220	0.220	0.056	0.126	0.070	0.034	0.050	0.106
Endosulfan II (beta)	0.220	0.220	0.056	0.220	0.220	0.056	0.126	0.070	0.034	0.050	0.106
Endosulfan sulfate	0.220	0.220	0.056	0.220	0.220	0.056	0.126	0.070	0.034	0.050	0.106
Endrin	0.086	0.086	0.0020	0.086	0.086	0.0020	0.049	0.028	0.0012	0.0018	0.0038
Guthion	N/A	N/A	0.010	N/A	N/A	0.010	N/A	N/A	0.0061	0.0090	0.019
Heptachlor	0.520	0.520	0.0040	0.520	0.520	0.0040	0.298	0.166	0.0024	0.0036	0.0076
Hexachlorocyclohexane (Lindane)	1.126	1.126	0.080	1.13	1.13	0.080	0.645	0.360	0.049	0.072	0.152
Lead	42.3	42.3	1.65	200	208	8.11	114	66.6	4.95	7.27	15.4
Malathion	N/A	N/A	0.01	N/A	N/A	0.010	N/A	N/A	0.0061	0.0090	0.019
Mercury	2.40	2.40	1.30	2.40	2.40	1.30	1.38	0.768	0.793	1.13	2.39
Methoxychlor	N/A	N/A	0.030	N/A	N/A	0.030	N/A	N/A	0.018	0.027	0.057
Mirex	N/A	N/A	0.0010	N/A	N/A	0.0010	N/A	N/A	0.00061	0.00090	0.0019
Nickel	338	338	37.5	638	1369	152	366	438	92.7	136	288
Nonylphenol	28.0	28.0	6.60	28.0	28.0	6.60	16.0	8.96	4.03	5.92	12.5
Parathion (ethyl)	0.065	0.065	0.013	0.065	0.065	0.013	0.037	0.021	0.0079	0.012	0.025
Pentachlorophenol	13.0	13.0	10.0	13.0	13.0	10.0	7.47	4.17	6.10	6.13	13.0
Phenanthrene	30.0	30.0	30.0	30.0	30.0	30.0	17.2	9.60	18.3	14.1	29.9
Polychlorinated Biphenyls (PCBs)	2.00	2.00	0.014	2.00	2.00	0.014	1.15	0.640	0.0085	0.013	0.027
Selenium	20.0	20.0	5.00	20.0	20.0	5.00	11.5	6.40	3.05	4.48	9.49
Silver (free ion)	0.800	0.800	N/A	5.70	5.70	N/A	3.27	1.82	N/A	2.68	5.68
Toxaphene	0.780	0.780	0.00020	0.780	0.780	0.00020	0.447	0.250	0.00012	0.00018	0.00038
Tributyltin (TBT)	0.130	0.130	0.024	0.130	0.130	0.024	0.074	0.042	0.015	0.022	0.046
2,4,5 Trichlorophenol	136	136	64.0	136	136	64.0	77.9	43.5	39.0	57.4	121
Zinc	84.5	84.5	85.2	246	521	525	141	167	320	207	438

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
Appendix B

HUMAN HEALTH

CALCULATE DAILY AVERAGE AND DAILY MAXIMUM EFFLUENT LIMITATIONS

Parameter	*Water and Fish Criterion (ug/L)*	*Fish Only Criterion (ug/L)*	*WLAh*	*LTAh*	*Daily Avg. (ug/L)*	*Daily Max. (ug/L)*
Acrylonitrile	0.800	3.80	0.800	0.744	1.09	2.31
Aldrin	0.00094	0.0010	0.00094	0.00087	0.0013	0.0027
Anthracene	5569	N/A	5569	5179	7613	16107
Antimony	6.00	1071	6.00	5.58	8.20	17.4
Arsenic	10.0	N/A	17.0	15.8	23.2	49.1
Barium	2000	N/A	2000	1860	2734	5785
Benzene	5.00	513	5.00	4.65	6.84	14.5
Benzidine	0.00086	0.0020	0.00086	0.00080	0.0012	0.0025
Benzo(a)anthracene	0.068	0.330	0.068	0.063	0.093	0.197
Benzo(a)pyrene	0.068	0.330	0.068	0.063	0.093	0.197
Bis(chloromethyl)ether	0.0024	0.440	0.0024	0.0022	0.0033	0.0069
Bis(2-chloroethyl)ether	0.300	5.27	0.300	0.279	0.410	0.868
Bis(2-ethylhexyl)phthalate	6.00	41.0	6.00	5.58	8.20	17.4
Bromodichloromethane	10.2	322	10.2	9.49	13.9	29.5
Bromoform	69.1	2175	69.1	64.3	94.5	200
Cadmium	5.00	N/A	24.8	23.1	33.9	71.8
Carbon Tetrachloride	4.10	29.0	4.10	3.81	5.61	11.9
Chlordane	0.0080	0.0081	0.0080	0.0074	0.011	0.023
Chlorobenzene	100	5201	100	93.0	137	289
Chlorodibromomethane (Dibromochloromethane)	7.60	239	7.60	7.07	10.4	22.0
Chloroform	70.0	7143	70.0	65.1	95.7	202
Chromium (+6)	62.0	502	62.0	57.7	84.8	179
Chrysene	68.1	327	68.1	63.4	93.1	197
Cresols	736	1981	736	684	1006	2129
Cyanide	200	N/A	200	186	273	578
4,4'-DDD	0.0031	0.0031	0.0031	0.0029	0.0042	0.0090
4,4'-DDE	0.0040	0.0040	0.0040	0.0037	0.0055	0.012
4,4'-DDT	0.0039	0.0039	0.0039	0.0036	0.0053	0.011
2,4'-D	70.0	N/A	70.0	65.1	95.7	202
Danitol	5.39	5.44	5.39	5.01	7.37	15.6
1,2-Dibromoethane	0.160	2.13	0.160	0.149	0.219	0.463
m-Dichlorobenzene	473	1445	473	440	647	1368
o-Dichlorobenzene	600	4336	600	558	820	1735
p-Dichlorobenzene	75.0	N/A	75.0	69.8	103	217
3,3'-Dichlorobenzidine	0.320	0.440	0.320	0.298	0.437	0.926
1,2-Dichloroethane	5.00	553	5.00	4.65	6.84	14.5
1,1-Dichloroethylene	7.00	23916	7.00	6.51	9.57	20.2
Dichloromethane	5.00	5926	5.00	4.65	6.84	14.5
1,2-Dichloropropane	5.00	226	5.00	4.65	6.84	14.5
1,3-Dichloropropene (1,3- Dichloropropylene)	3.40	211	3.40	3.16	4.65	9.83
Dicofol	0.076	0.076	0.076	0.071	0.104	0.220
Dieldrin	0.00050	0.00050	0.00050	0.00047	0.00068	0.0014
2,4-Dimethylphenol	257	571	257	239	351	743
Di-n-Butyl Phthalate	1318	3010	1318	1226	1802	3812
Dioxins/Furans (TCDD Equivalents)	8.00E-08	8.00E-08	8.00E-08	7.44E-08	1.09E-07	2.31E-07
Endrin	0.200	0.200	0.200	0.186	0.273	0.578
Ethylbenzene	700	7143	700	651	957	2025
Fluoride	4000	N/A	4000	3720	5468	11569
Heptachlor	0.0015	0.0015	0.0015	0.0014	0.0021	0.0043
Heptachlor Epoxide	0.00074	0.00075	0.00074	0.00069	0.0010	0.0021
Hexachlorobenzene	0.0044	0.0045	0.0044	0.0041	0.0060	0.013

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
Appendix B

HUMAN HEALTH

CALCULATE DAILY AVERAGE AND DAILY MAXIMUM EFFLUENT LIMITATIONS

Parameter	*Water and Fish Criterion (ug/L)*	*Fish Only Criterion (ug/L)*	*WLAh*	*LTAh*	*Daily Avg. (ug/L)*	*Daily Max. (ug/L)*
Hexachlorobutadiene	6.50	274	6.50	6.05	8.89	18.8
Hexachlorocyclohexane (alpha)	0.050	0.093	0.050	0.047	0.068	0.145
Hexachlorocyclohexane (beta)	0.170	0.330	0.170	0.158	0.232	0.492
Hexachlorocyclohexane (gamma) (Lindane)	0.200	6.20	0.200	0.186	0.273	0.578
Hexachlorocyclopentadiene	50.0	N/A	50.0	46.5	68.4	145
Hexachloroethane	27.0	62.0	27.0	25.1	36.9	78.1
Hexachlorophene	0.0080	0.0080	0.0080	0.0074	0.011	0.023
Lead	1.15	3.83	5.65	5.26	7.73	16.4
Mercury	0.012	0.012	0.012	0.011	0.017	0.035
Methoxychlor	0.330	0.330	0.330	0.307	0.451	0.954
Methyl Ethyl Ketone	13932	1500000	1.39E+04	1.30E+04	1.90E+04	4.03E+04
Nickel	332	1140	1345	1251	1839	3890
Nitrate-Nitrogen (as Total Nitrogen)	10000	N/A	10000	9300	13671	28923
Nitrobenzene	11.0	463	11.0	10.2	15.0	31.8
N-Nitrosodiethylamine	0.0037	2.10	0.0037	0.0034	0.0051	0.011
N-Nitroso-di-n-Butylamine	0.119	4.20	0.119	0.111	0.163	0.344
Pentachlorobenzene	1.00	1.00	1.00	0.930	1.37	2.89
Pentachlorophenol	1.00	57.0	1.00	0.930	1.37	2.89
Polychlorinated Biphenyls (PCBs)	6.40E-04	6.40E-04	0.00064	0.00059	0.00087	0.0019
Pyridine	23.0	2014	23.0	21.4	31.4	66.5
Selenium	50.0	N/A	50.0	46.5	68.4	145
1,2,4,5-Tetrachlorobenzene	0.650	0.710	0.650	0.605	0.889	1.88
1,1,2,2-Tetrachloroethane	3.20	76.0	3.20	2.98	4.37	9.26
Tetrachloroethylene	5.00	49.0	5.00	4.65	6.84	14.46
Thallium	0.750	1.50	0.750	0.698	1.03	2.17
Toluene	1000	N/A	1000	930	1367	2892
Toxaphene	0.0053	0.0053	0.0053	0.0049	0.0072	0.015
2,4,5-TP (Silvex)	7.30	7.60	7.30	6.79	9.98	21.1
1,1,1-Trichloroethane	200	956663	200	186	273	578
1,1,2-Trichloroethane	5.00	295	5.00	4.65	6.84	14.5
Trichloroethylene	5.00	649	5.00	4.65	6.84	14.5
2,4,5-Trichlorophenol	1194	2435	1194	1110	1632	3453
TTHM (Sum of Total Trihalomethanes)	80.0	N/A	80.0	74.4	109	231
Vinyl Chloride	0.250	24.0	0.250	0.233	0.342	0.723

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

Aquatic Life

Parameter	*70%*	*85%*
Aldrin	0.988	1.20
Aluminum	326	396
Arsenic	160	194
Cadmium	0.586	0.712
Carbaryl	0.659	0.800
Chlordane	0.0025	0.0030
Chlorpyrifos	0.026	0.031
Chromium (+3)	238	289
Chromium (+6)	5.17	6.28
Copper	13.8	16.7
Cyanide	6.72	8.16
4,4'-DDT	0.0006	0.0008
Demeton	0.063	0.076
Diazinon	0.056	0.068

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
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CALCULATE 70% AND 85% OF DAILY AVERAGE EFFLUENT LIMITATIONS:

Aquatic Life

Parameter	*70%*	*85%*
Dicofol	12.4	15.1
Dieldrin	0.0013	0.0015
Diuron	43.9	53.4
Endosulfan (alpha)	0.035	0.043
Endosulfan (beta)	0.035	0.043
Endosulfan sulfate	0.035	0.043
Endrin	0.0013	0.0015
Guthion	0.0063	0.0076
Heptachlor	0.0025	0.0030
Hexachlorocyclohexane (Lindane)	0.050	0.061
Lead	5.09	6.18
Malathion	0.0063	0.0076
Mercury	0.790	0.960
Methoxychlor	0.019	0.023
Mirex	0.00063	0.00076
Nickel	95.4	116
Nonylphenol	4.14	5.03
Parathion (ethyl)	0.0082	0.010
Pentachlorophenol	4.29	5.21
Phenanthrene	9.88	12.00
Polychlorinated Biphenyls (PCBs)	0.0088	0.011
Selenium	3.14	3.81
Silver (free ion)	1.88	2.28
Toxaphene	0.00013	0.00015
Tributyltin (TBT)	0.015	0.018
2,4,5 Trichlorophenol	40.2	48.8
Zinc	145	176

Human Health

Parameter	*70%*	*85%*
Acrylonitrile	0.766	0.930
Aldrin	0.00090	0.0011
Anthracene	5329	6471
Antimony	5.74	6.97
Arsenic	16.2	19.7
Barium	1914	2324
Benzene	4.78	5.81
Benzidine	0.00082	0.0010
Benzo(a)anthracene	0.065	0.079
Benzo(a)pyrene	0.065	0.079
Bis(chloromethyl)ether	0.0023	0.0028
Bis(2-chloroethyl)ether	0.287	0.349
Bis(2-ethylhexyl)phthalate	5.74	6.97
Bromodichloromethane	9.76	11.9
Bromoform	66.1	80.3
Cadmium	23.8	28.8
Carbon Tetrachloride	3.92	4.76
Chlordane	0.0077	0.0093
Chlorobenzene	95.7	116
Chlorodibromomethane (Dibromochloromethane)	7.27	8.83
Chloroform	67.0	81.3
Chromium (+6)	59.3	72.0
Chrysene	65.2	79.2

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
Appendix B

Human Health

Parameter	70%	85%
Cresols	704	855
Cyanide	191	232
4,4'-DDD	0.0030	0.0036
4,4'-DDE	0.0038	0.0046
4,4'-DDT	0.0037	0.0045
2,4'-D	67.0	81.3
Danitol	5.16	6.26
1,2-Dibromoethane	0.153	0.186
m-Dichlorobenzene	453	550
o-Dichlorobenzene	574	697
p-Dichlorobenzene	71.8	87.2
3,3'-Dichlorobenzidine	0.306	0.372
1,2-Dichloroethane	4.78	5.81
1,1-Dichloroethylene	6.70	8.13
Dichloromethane	4.78	5.81
1,2-Dichloropropane	4.78	5.81
1,3-Dichloropropene (1,3- Dichloropropylene)	3.25	3.95
Dicofol	0.073	0.088
Dieldrin	0.00048	0.00058
2,4-Dimethylphenol	246	299
Di-n-Butyl Phthalate	1261	1532
Dioxins/Furans (TCDD Equivalents)	7.66E-08	9.30E-08
Endrin	0.191	0.232
Ethylbenzene	670	813
Fluoride	3828	4648
Heptachlor	0.0014	0.0017
Heptachlor Epoxide	0.00071	0.00086
Hexachlorobenzene	0.0042	0.0051
Hexachlorobutadiene	6.22	7.55
Hexachlorocyclohexane (alpha)	0.048	0.058
Hexachlorocyclohexane (beta)	0.163	0.198
Hexachlorocyclohexane (gamma) (Lindane)	0.191	0.232
Hexachlorocyclopentadiene	47.8	58.1
Hexachloroethane	25.8	31.4
Hexachlorophene	0.0077	0.0093
Lead	5.41	6.57
Mercury	0.012	0.014
Methoxychlor	0.316	0.383
Methyl Ethyl Ketone	1.33E+04	1.62E+04
Nickel	1287	1563
Nitrate-Nitrogen (as Total Nitrogen)	9570	11620
Nitrobenzene	10.5	12.8
N-Nitrosodiethylamine	0.0035	0.0043
N-Nitroso-di-n-Butylamine	0.114	0.138
Pentachlorobenzene	0.957	1.16
Pentachlorophenol	0.957	1.16
Polychlorinated Biphenyls (PCBs)	0.00061	0.00074
Pyridine	22.0	26.7
Selenium	47.8	58.1
1,2,4,5-Tetrachlorobenzene	0.622	0.755
1,1,2,2-Tetrachloroethane	3.06	3.72
Tetrachloroethylene	4.78	5.81
Thallium	0.718	0.872
Toluene	957	1162
Toxaphene	0.0051	0.0062

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

Appendix B

Human Health

Parameter	70%	85%
2,4,5-TP (Silvex)	6.99	8.48
1,1,1-Trichloroethane	191	232
1,1,2-Trichloroethane	4.78	5.81
Trichloroethylene	4.78	5.81
2,4,5-Trichlorophenol	1143	1387
TTHM (Sum of Total Trihalomethanes)	76.6	93.0
Vinyl Chloride	0.239	0.291

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
Appendix B

Screening Calculations for Total Dissolved Solids
Discharge to an Intermittent Stream within 3 Miles of a Lake
The Intermittent Stream

Applicant Name:	NRG TEXAS Power, LLC
Permit Number, Outfall:	004
Segment Number:	1252

Enter values needed for screening:			**Data Source (edit if different)**
TDS CC - segment criterion - TDS	300	mg/L	2010 TSWQS, Appendix A
Cl CC - segment criterion - chloride	50	mg/L	2010 TSWQS, Appendix A
SO4 CC - segment criterion - sulfate	50	mg/L	2010 TSWQS, Appendix A
TDS CE – average* effluent concentration - TDS	3000	mg/L	Permit limit

average* - The maximum daily effluent limitation of 3000 mg/L at Outfall 004 was used to determine if it was sufficient to protect the water quality of the intermittent stream.

TDS Screening

The TDS screening value is determined by first calculating an initial TDS concentration, C_{TDS}, as follows:

$$C_{TDS} = (\text{TDS CC} / 500 \text{ mg/L}) * 2{,}500 \text{ mg/L}$$

Where:	C_{TDS} = TDS concentration used to determine Csv screening value
	TDS CC = TDS criterion at the first downstream segment
	500 mg/L = the median TDS concentration in Texas streams
	2,500 mg/L = the minimum TDS screening value

C_{TDS} = 1500 mg/L

The next step is to use the initial C_{TDS} to set the actual TDS screening value, TDS Csv, using the following table:

If C_{TDS}		**Then TDS Csv**
≤ 2,500 mg/L	=	2,500 mg/L
> 2,500 mg/L	=	C_{TDS}
> 6,000 mg/L	=	6,000 mg/L

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
Appendix B

Some specific types of intermittent streams have alternative screening values (Csv):

Specific Type of Intermittent Stream	If C_{TDS} is	Default Csv =
Dry except for short-term flow in immediate response to rainfall.	< 4,000 mg/L	4,000 mg/L
	≥ 4,000 mg/L	C_{TDS}
Constructed ditch conveying stormwater and wastewater, considered water in the state.	< 4,000 mg/L	4,000 mg/L
	≥ 4,000 mg/L	C_{TDS}
Within 3 miles of tidal waters.	—	6,000 mg/L

Once TDS Csv is established, the next step is to compare the effluent TDS concentration, TDS CE, to the screening value. Control measures, which may include effluent limitations, are considered for TDS if the effluent TDS is greater than the screening value.

Values needed for Screening			Data Source
TDS CE - average effluent TDS concentration	3000	mg/L	Permit limit
TDS Csv - TDS screening value	**2500**	mg/L	Determined above

No control measures needed if:	3000	≤	2500
Consider control measures if:	3000	>	2500

When effluent limitations are established in the permit, the daily average TDS limit is typically set equal to the TDS screening value. The daily maximum TDS limit is calculated as 2.12 times the daily average limit.

Total Dissolved Solids			
Daily Average	=	2,500	mg/L
Daily Maximum	=	5,300	mg/L

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
Appendix B

Screening Calculations for Total Dissolved Solids
Discharge to an Intermittent Stream within 3 Miles of a Lake

The Lake

Applicant Name:	NRG
Permit Number, Outfall:	004
Segment Number:	1252

Enter values needed for screening:			**Data Source (edit if different)**
EF - Effluent fraction at edge of human health MZ	1	decimal fraction	Critical conditions memo
CA - TDS - ambient segment concentration	270	mg/L	2010 IP, Appendix D
CA - chloride - ambient segment concentration	13	mg/L	2010 IP, Appendix D
CA - sulfate - ambient segment concentration	21	mg/L	2010 IP, Appendix D
CC - TDS - segment criterion	300	mg/L	2010 TSWQS, Appendix A
CC - chloride - segment criterion	50	mg/L	2010 TSWQS, Appendix A
CC - sulfate - segment criterion	50	mg/L	2010 TSWQS, Appendix A
CE - TDS – average* effluent concentration	3000	mg/L	Permit limit

average* - The maximum daily effluent limitation of 3000 mg/L at Outfall 004 was used to determine if it was sufficient to protect the water quality of the intermittent stream.

Screening Equation

$$CC \geq (EF)(CE)+(1-EF)(CA)$$

Permit Limit Calculations

TDS

Calculate the WLA	WLA= [CC - (1-EF)(CA)]/EF	300.00
Calculate the LTA	LTA = WLA * 0.93	279.00
Calculate the daily average	Daily Avg. = LTA * 1.47	410.13
Calculate the daily maximum	Daily Max. = LTA * 3.11	867.69
Calculate 70% of the daily average	70% of Daily Avg. =	287.09
Calculate 85% of the daily average	85% of Daily Avg. =	348.61

No permit limitations needed if:	**3000**	**≤**	**287.09**		
Reporting needed if:	**3000**	**>**	**287.09**	**but ≤**	**348.61**
Permit limits may be needed if:	**3000**	**>**	**348.61**		

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

Appendix C

Comparison of Technology-Based Effluent Limits and Water Quality-Based Effluent Limits

The following table is a summary of technology-based effluent limitations assessed in the draft permit (Technology-Based), calculated/ assessed water quality-based effluent limitations (Water Quality-Based), and effluent limitations in the existing permit (Existing Permit). Effluent limitations appearing in **bold** are the most stringent of the three and are included in the draft permit. Blank cells in the table denote that there are no effluent limitations applicable

Outfall	Parameter	Technology-Based				Water Quality-Based				Existing Permit			
		Daily Avg		Daily Max		Daily Avg		Daily Max		Daily Avg		Daily Max	
		mg/L	lbs/day	mg/L	lbs/day	mg/L	lbs/day	mg/L	lbs/day	mg/L	lbs/day	mg/L	lbs/day
001	Flow											**2.304 MGD**	
	Temperature											**93°F**	
	Total Suspended Solids	30		100						**30**		**100**	
	Oil and Grease	15		20						**15**		**20**	
	Free Available Chlorine	0.2		0.5						**0.2**		**0.5**	
	Copper, Total					0.0208		0.044		**Report**		**Report**	
	Selenium, Total					0.0168	0.323	0.0356	0.684	**0.00448**	**0.086**	**0.00949**	**0.182**
	pH	6.0 S.U. (Min.)		9.0 S.U.						**6.0 S.U. (Min.)**		**9.0 S.U.**	
002	Flow									**Report MGD**		**Report MGD**	
	Total Suspended Solids		30		50						**30**		**50**
	Oil and Grease		15		20						**15**		**20**
	Dissolved Oxygen											**5.0 mg/L (Min.)**	
	Selenium, Total					**0.0168**	**0.029**	**0.0356**	**0.061**	0.0168	0.87	0.0356	1.83
	pH	6.0 S.U. (Min.)		9.0 S.U.						**6.0 S.U. (Min.)**		**9.0 S.U.**	
003	Flow											**0.51 MGD**	
	Total Suspended Solids	30		100						**30**		**100**	
	Oil and Grease	15		20						**15**		**20**	
	pH	6.0 S.U. (Min.)		9.0 S.U.						**6.0 S.U. (Min.)**		**9.0 S.U.**	
004	Flow											**0.432 MGD**	
	Total Suspended Solids	30		100						**30**		**100**	
	Oil and Grease	15		20						**15**		**20**	
	Total Dissolved Solids							**868**				3000	
	Selenium, Total					0.00448	0.016	0.00949	0.034	**0.00448**	**0.016**	**0.00949**	**0.034**
	pH	6.0 S.U. (Min.)		9.0 S.U.						**6.0 S.U. (Min.)**		**9.0 S.U.**	

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

Appendix C

Outfall	Parameter	Technology-Based				Water Quality-Based				Existing Permit			
		Daily Avg		Daily Max		Daily Avg		Daily Max		Daily Avg		Daily Max	
		mg/L	lbs/day	mg/L	lbs/day	mg/L	lbs/day	mg/L	lbs/day	mg/L	lbs/day	mg/L	lbs/day
005	Flow											**0.216 MGD**	
	Total Suspended Solids	30		100						**30**		**100**	
	Oil and Grease	15		20						**15**		**20**	
	Iron, Total	1.0		1.0						**1.0**		**1.0**	
	Copper, Total	1.0		1.0		**0.0197**		**0.0416**		0.0259		0.0547	
	Selenium, Total					0.00448	0.0081	0.00949	0.017	**0.00448**	**0.0081**	**0.00949**	**0.017**
	pH	6.0 S.U. (Min.)		9.0 S.U.						**6.0 S.U. (Min.)**		**9.0 S.U.**	
006	Flow									**0.06 MGD**		**0.09 MGD**	
	Total Suspended Solids	15	9.0	**45**	**N/A**					**15**	**7.5**	60	N/A
	Biochemical Oxygen Demand (5-day) (BOD5)	10	6.0	45	N/A					**10**	**5**	**35**	**N/A**
	Dissolved Oxygen											**4.0 mg/L (Min.)**	
	Residual Chlorine - Min.											**1.0 mg/L (Min.)**	
	Residual Chlorine - Max.											**4.0 mg/L (Max.)**	
	E. coli (cols/100ml or MPN)					**(Report)**		**(Report)**					
	E. coli (cols/100ml or MPN)					**(126)**		**(399)**					
	pH									**6.0 S.U. (Min.)**		**9.0 S.U.**	
007	Flow									**0.003 MGD**		**0.006 MGD**	
	Total Suspended Solids	**15**	**0.38**	**45**						15	7.5	60	
	Biochemical Oxygen Demand (5-day) (BOD5)	**10**	**0.25**	45						10	5	**35**	
	Dissolved Oxygen											**4.0 mg/L (Min.)**	
	Residual Chlorine - Min.											**1.0 mg/L (Min.)**	
	Residual Chlorine - Max.											**4.0 mg/L (Max.)**	
	E. coli (cols/100ml or MPN)					**(Report)**		**(Report)**					
	E. coli (cols/100ml or MPN)					**(126)**		**(399)**					
	pH	N/A		N/A		N/A		N/A		**6.0 S.U. (Min.)**		**9.0 S.U.**	
008	Flow											**0.072 MGD**	
	Total Suspended Solids	30		100						**30**		**100**	
	Oil and Grease	15		20						**15**		**20**	
	Selenium, Total					0.0168	0.01	0.0356	0.02	**0.0168**	**0.01**	**0.0356**	**0.02**
	pH	6.0 S.U. (Min.)		9.0 S.U.						**6.0 S.U. (Min.)**		**9.0 S.U.**	

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Compliance History Report

PUBLISHED Compliance History Report for CN603207218, RN100542927, Rating Year 2014 which includes Compliance History (CH) components from September 1, 2009, through August 31, 2014.

Customer, Respondent, or Owner/Operator:	CN603207218, NRG Texas Power LLC	**Classification:** HIGH	**Rating:** 0.04
Regulated Entity:	RN100542927, LIMESTONE ELECTRIC GENERATING STATION	**Classification:** SATISFACTORY	**Rating:** 0.10
Complexity Points:	28	**Repeat Violator:** NO	
CH Group:	06 - Electric Power Generation		
Location:	3964 N FM 39 JEWETT, TX 75846-5055, LIMESTONE COUNTY		
TCEQ Region:	REGION 09 - WACO		

ID Number(s):

AIR OPERATING PERMITS ACCOUNT NUMBER LI0027L
WASTEWATER PERMIT WQ0002430000
PETROLEUM STORAGE TANK REGISTRATION REGISTRATION 33319
AIR NEW SOURCE PERMITS PERMIT 8579
AIR NEW SOURCE PERMITS REGISTRATION 34901
AIR NEW SOURCE PERMITS REGISTRATION 43797
AIR NEW SOURCE PERMITS ACCOUNT NUMBER LI0027L
AIR NEW SOURCE PERMITS EPA PERMIT PSDTX371M4
AIR NEW SOURCE PERMITS REGISTRATION 73908
AIR NEW SOURCE PERMITS REGISTRATION 51712
AIR NEW SOURCE PERMITS REGISTRATION 80218
AIR NEW SOURCE PERMITS REGISTRATION 107803
AIR NEW SOURCE PERMITS EPA PERMIT PSDTX371M5
AIR EMISSIONS INVENTORY ACCOUNT NUMBER LI0027L
STORMWATER PERMIT TXR15XK63
AIR OPERATING PERMITS PERMIT 75
WASTEWATER EPA ID TX0082651
AIR NEW SOURCE PERMITS PERMIT 8576
AIR NEW SOURCE PERMITS REGISTRATION 34999
AIR NEW SOURCE PERMITS REGISTRATION 42002
AIR NEW SOURCE PERMITS REGISTRATION 46764
AIR NEW SOURCE PERMITS AFS NUM 4829300010
AIR NEW SOURCE PERMITS REGISTRATION 52233
AIR NEW SOURCE PERMITS REGISTRATION 74601
AIR NEW SOURCE PERMITS REGISTRATION 80272
AIR NEW SOURCE PERMITS REGISTRATION 97979
AIR NEW SOURCE PERMITS REGISTRATION 117019
WASTEWATER LICENSING LICENSE WQ0002430000
STORMWATER PERMIT TXR15XK65

Compliance History Period: September 01, 2009 to August 31, 2014 **Rating Year:** 2014 **Rating Date:** 09/01/2014

Date Compliance History Report Prepared: March 26, 2015

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

Component Period Selected: March 26, 2010 to March 26, 2015

TCEQ Staff Member to Contact for Additional Information Regarding This Compliance History.

Name: GCooper **Phone:** (512) 239-1963

Site and Owner/Operator History:

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/operator of the site during the compliance period? YES
3) If **YES** for #2, who is the current owner/operator?
NRG Texas LP OWNER OPERATOR since 8/31/2002
CERT Operations RCB, LLC OPERATOR since 5/1/2014
Utility Fuels, Inc. OWNER since 5/3/1988
NRG Texas Power LLC OWNER OPERATOR since 7/1/2007
Houston Lighting & Power Company OWNER since 1/1/1800
4) If **YES** for #2, who was/were the prior owner(s)/operator(s)?
CERT Operations IV, LLC, OWNER OPERATOR, 8/10/2011 to 4/30/2014
5) If **YES**, when did the change(s) in owner or operator occur?
5/1/2014

Components (Multimedia) for the Site Are Listed in Sections A - J

A. Final Orders, court judgments, and consent decrees:
N/A

B. Criminal convictions:
N/A

C. Chronic excessive emissions events:
N/A

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

Item 1	April 01, 2010	(834059)
Item 2	April 30, 2010	(800347)
Item 3	May 02, 2010	(834060)
Item 4	May 03, 2010	(799445)
Item 5	May 04, 2010	(800089)
Item 6	May 05, 2010	(800715)
Item 7	May 19, 2010	(800346)
Item 8	May 24, 2010	(801511)
Item 9	May 28, 2010	(800624)
Item 10	June 01, 2010	(847245)
Item 11	June 07, 2010	(801729)
Item 12	June 11, 2010	(801082)
Item 13	June 15, 2010	(801161)
Item 14	June 16, 2010	(803746)
Item 15	June 18, 2010	(801728)
Item 16	July 01, 2010	(861694)
Item 17	July 07, 2010	(828338)
Item 18	July 28, 2010	(842027)
Item 19	August 02, 2010	(868074)
Item 20	August 09, 2010	(842790)
Item 21	September 01, 2010	(875008)
Item 22	September 20, 2010	(842070)
Item 23	October 05, 2010	(882612)
Item 24	November 01, 2010	(889034)
Item 25	November 22, 2010	(877852)
Item 26	November 30, 2010	(873283)
Item 27	December 01, 2010	(897404)
Item 28	December 21, 2010	(873282)
Item 29	January 03, 2011	(903293)
Item 30	January 05, 2011	(878422)
Item 31	February 01, 2011	(910215)
Item 32	February 02, 2011	(891769)
Item 33	February 24, 2011	(893304)
Item 34	February 28, 2011	(900877)
Item 35	March 01, 2011	(895234)
Item 36	March 15, 2011	(901066)
Item 37	April 06, 2011	(928311)
Item 38	April 20, 2011	(912928)
Item 39	May 02, 2011	(939122)
Item 40	May 18, 2011	(921252)
Item 41	June 01, 2011	(946516)
Item 42	June 10, 2011	(922783)
Item 43	June 29, 2011	(935510)
Item 44	July 05, 2011	(953789)
Item 45	August 02, 2011	(960393)
Item 46	August 03, 2011	(944476)
Item 47	September 01, 2011	(966452)
Item 48	October 03, 2011	(972459)

Item 49	October 14, 2011	(962676)
Item 50	November 01, 2011	(978609)
Item 51	November 09, 2011	(964567)
Item 52	November 22, 2011	(969423)
Item 53	December 05, 2011	(985431)
Item 54	December 06, 2011	(920798)
Item 55	January 02, 2012	(991718)
Item 56	February 06, 2012	(999060)
Item 57	February 28, 2012	(988191)
Item 58	March 01, 2012	(1004584)
Item 59	April 02, 2012	(993744)
Item 60	April 18, 2012	(1011165)
Item 61	April 20, 2012	(996326)
Item 62	April 25, 2012	(1001560)
Item 63	April 30, 2012	(1002136)
Item 64	May 07, 2012	(1017523)
Item 65	June 06, 2012	(1025317)
Item 66	June 29, 2012	(1014990)
Item 67	July 02, 2012	(1032659)
Item 68	July 19, 2012	(1016259)
Item 69	August 06, 2012	(1039084)
Item 70	September 04, 2012	(1027111)
Item 71	October 01, 2012	(1066591)
Item 72	October 03, 2012	(1030293)
Item 73	November 01, 2012	(1066592)
Item 74	November 02, 2012	(1037541)
Item 75	November 05, 2012	(1037742)
Item 76	December 04, 2012	(1066593)
Item 77	December 10, 2012	(1042009)
Item 78	December 19, 2012	(1043289)
Item 79	January 03, 2013	(1081372)
Item 80	January 16, 2013	(1051138)
Item 81	February 04, 2013	(1081371)
Item 82	February 27, 2013	(1054702)
Item 83	March 05, 2013	(1090473)
Item 84	March 06, 2013	(1055953)
Item 85	April 01, 2013	(1096825)
Item 86	May 01, 2013	(1107791)
Item 87	June 03, 2013	(1086814)
Item 88	June 07, 2013	(1076828)
Item 89	July 01, 2013	(1118324)
Item 90	August 01, 2013	(1126115)
Item 91	September 03, 2013	(1130668)
Item 92	September 13, 2013	(1105879)
Item 93	September 16, 2013	(1116996)
Item 94	October 01, 2013	(1136433)
Item 95	November 05, 2013	(1141815)
Item 96	November 07, 2013	(1124214)
Item 97	November 19, 2013	(1132932)
Item 98	December 02, 2013	(1148280)
Item 99	January 07, 2014	(1154352)
Item 100	February 06, 2014	(1161675)
Item 101	March 03, 2014	(1168302)
Item 102	April 01, 2014	(1175464)
Item 103	April 29, 2014	(1163675)
Item 104	May 01, 2014	(1181657)
Item 105	June 02, 2014	(1188555)
Item 106	July 01, 2014	(1200296)
Item 107	July 23, 2014	(1179881)
Item 108	August 04, 2014	(1200297)

Item 109	August 22, 2014	(1186432)
Item 110	September 02, 2014	(1206919)
Item 111	September 09, 2014	(1193369)
Item 112	September 16, 2014	(1190896)
Item 113	September 23, 2014	(1196632)
Item 114	October 01, 2014	(1213329)
Item 115	October 21, 2014	(1202533)
Item 116	November 03, 2014	(1219581)
Item 117	November 04, 2014	(1205026)
Item 118	December 01, 2014	(1225372)
Item 119	January 06, 2015	(1232308)
Item 120	January 15, 2015	(1203461)
Item 121	March 10, 2015	(1227655)

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

A notice of violation represents a written allegation of a violation of a specific regulatory requirement from the commission to a regulated entity. A notice of violation is not a final enforcement action, nor proof that a violation has actually occurred.

N/A

F. Environmental audits:

Notice of Intent Date: 10/20/2014 (1209148)

Disclosure Date: 01/23/2015

Viol. Classification: Moderate

Citation: 30 TAC Chapter 122, SubChapter B 122.143(4)

Rqmt Prov: PERMIT FOP O75

OP FOP O75, STC 1.A.

Description: Failed to properly conduct weekly visual emissions observations of the fuel handling sources (Group ID: GRP-FH-1). Specifically, the observations were conducted while the fuel handling system was either unloading coal to the pile or delivering coal to one or both of the EGUs; however, several intermittently operated emissions points were not in operation during some of these observations.

Viol. Classification: Minor

Citation: 30 TAC Chapter 116, SubChapter F 116.615(4)

30 TAC Chapter 122, SubChapter B 122.143(4)

Rqmt Prov: PERMIT FOP O75, STC 9

PERMIT NSR Permit 8576, GC 3

PERMIT NSR Permit 8579, GC 3

Description: Failed to submit the Start of Construction Notification within 15 days after installation of the Activated Carbon Injection systems on Units 1 and 2. Specifically, installation began on July 28, 2014, but the Start of Construction Notification was not submitted until October 16, 2014.

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:

N/A

J. Early compliance:

N/A

Sites Outside of Texas:

N/A