TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

April 6, 2015

Bridget C. Bohac, Chief Clerk
Texas Commission on Environmental Quality
Office of the Chief Clerk (MC-105) P.O. Box 13087
Austin, Texas 78711-3087

Re: **NRG Texas Power, LLC**
TPDES Permit No. WQ0002430000
TCEQ Docket No. 2014-1371-IWD.

Dear Ms. Bohac,

Enclosed please find the original and seven (7) copies of the Executive Director's Response to Request for Hearing in the above-entitled matter.

Sincerely,

Michael T. Parr II, Staff Attorney
Environmental Law Division
State Bar No. 24062936

cc: Mailing List

Enclosure

TCEQ DOCKET NUMBER 2014-1371-IWD

APPLICATION by NRG TEXAS POWER, LLC for TPDES Permit No. WQ0002430000	**§ § § § §**	**BEFORE THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY**

EXECUTIVE DIRECTOR'S RESPONSE TO HEARING REQUESTS

I. Introduction

The Executive Director (ED) of the Texas Commission on Environmental Quality (the commission or TCEQ) files this Response to Hearing Requests (Response) on the application by NRG Texas Power, LLC (Applicant) for a renewal of Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0002430000. Sierra Club submitted a written request for a contested case hearing (CCH).

Attached for Commission consideration are the following:

Attachment A - Technical Summary & Draft Permit
Attachment B - ED's Response to Comments (RTC) and Amended RTC
Attachment C - Compliance History
Attachment D - ED's GIS Map

II. Description of the Facility

The Applicant, who operates the Limestone Electric Generating Station (facility), a lignite-coal-fired steam-electric generating station 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, applied to the TCEQ for a renewal of TPDES 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 (max) flow not to exceed 2.304 million gallons per day (MGD) via

Outfall 001. Via Outfall 002, the proposed permit authorizes material handling area-runoff, washdown and bottom ash transport water, and low volume waste to be discharged on an intermittent and flow-variable basis. Via Outfalls 003 and 004, authorized discharges consist of bottom ash transport water, low volume waste, and stormwater runoff at a daily max flow not to exceed 0.51 MGD (003), and 0.432 MGD (004). Via Outfall 005, authorized discharges consist of low volume waste, metal cleaning waste, bottom ash transport water, and utility wastewater at a daily max flow not to exceed 0.216 MGD. Via Outfalls 006 and 007, authorized discharges consist of treated domestic wastewater at a daily average flow not to exceed 0.06 MGD (006), and 3,000 gallons per day (007). Via Outfall 008, authorized discharges consist of bottom ash transport water and low volume waste at a daily max flow not to exceed 0.072 MGD.

If the Commission issues the renewal, the discharge route for all outfalls ends at Lake Limestone in Segment No. 1252 of the Brazos River Basin. However, via Outfalls 001, 003, and 006, the discharge route is first to the original channel of Lynn Creek, then to Lambs Creek; via Outfalls 002, 007, and 008, first to the relocated channel of Lynn Creek, then to Lambs Creek; and via Outfalls 004 and 005, first to unnamed tributaries of Lambs Creek, then to Lambs Creek. The unclassified receiving waters in the original and relocated channels of Lynn Creek, the unnamed tributaries of, and Lambs Creek, are all minimal aquatic life use. The designated uses for Segment No. 1252 are primary contact recreation, public water supply, and high aquatic life use.

III. Procedural Background

The TCEQ received the renewal application on May 23, 2013, and declared it Administratively Complete on July 1, 2013. The Applicant published the Notice of

Receipt and Intent to Obtain a Water Quality Permit (NORI) in Limestone County, Texas on July 3, 25 2013 in the *Mexia News*, on July 25, 2013 in the *Teague Chronicle,* and on July 26, 2013 in the *La Cara* Spanish Newspaper. The ED completed the technical review of the application on December 17, 2013, and prepared a draft permit, which if approved, would establish the conditions under which the facility must operate. The Applicant published the Notice of Application and Preliminary Decision for a Water Quality Permit (NAPD) on April 17, 2014, in the *Mexia News* and the *Teague Chronicle,* and on April 18, 2014 in the *La Cara* Spanish Newspaper. The public comment period closed on May 19, 2014. On August 11, 2014, the ED filed his first Response to Comment (RTC) on the application. On November 5, 2014 the timely filed hearing requests/requests for reconsideration on the application were set for consideration by the Commissioners at the December 10, 2014 Agenda meeting. On November 17, 2014 the ED filed his Response to Hearing Requests. On December 5, 2014, the ED filed a Motion to Remand the application to the ED to allow the ED to respond to the comments submitted by Sierra Club in a May 19, 2014 comment letter. The May 19, 2014 comment letter also included a request to extend the comment period, and a request for a public meeting, which were denied by the ED in a letter dated May 28, 2014. On December 5, 2014, the application was remanded to the ED so that he could respond to Sierra Club's comments. On January 7, 2015, the ED filed an Amended RTC addressing Sierra Club's comments from the May 19, 2014 letter.

This application was administratively complete on or after September 1, 1999; therefore, this application is subject to the procedural requirements adopted pursuant to House Bill 801, 76th Legislature, 1999.

IV. Evaluation of Hearing Requests

House Bill 801 established statutory procedures for public participation in certain environmental permitting proceedings. For those applications declared administratively complete on or after September 1, 1999, it established new procedures for providing public notice and public comment, and for the Commission's consideration of hearing requests. This application was declared administratively complete on August 17 2012, and therefore, is subject to the HB 801 requirements. The Commission implemented HB 801 by adopting procedural rules in Title 30 of the Texas Administrative Code (30 TAC) chapters 39, 50, and 55. The regulations governing requests for CCH are found at 30 TAC Chapter 55.

A. Response to Requests

"The Executive Director, the public interest counsel, and applicant may submit written responses to [hearing] requests . . . ."[1]

Responses to hearing requests must specifically address:

(a) whether the requestor is an affected person;

(b) whether issues raised in the hearing request are disputed;

(c) whether the dispute involves questions of fact or law;

(d) whether the issues were raised during the public comment period;

(e) whether the hearing request is based on issues raised solely in a public comment withdrawn by the commenter in writing by filing a withdrawal letter with the chief clerk prior to the filing of the Executive Director's Response to Comment;

(f) whether the issues are relevant and material to the decision on the application; and

[1] 30 TAC §55.209(d).

(g) a maximum expected duration for the contested case hearing.[2]

B. Hearing Request Requirements

In order for the Commission to consider a hearing request, the Commission must first determine whether the request meets certain requirements.

> A request for a contested case hearing by an affected person must be in writing, must be filed with the chief clerk within the time provided . . . and may not be based on an issue that was raised solely in a public comment withdrawn by the commenter in writing by filing a withdrawal letter with the chief clerk prior to the filing of the Executive Director's Response to Comment.[3]

A hearing request must substantially comply with the following:

(1) give the name, address, daytime telephone number, and where possible, fax number of the person who files the request. If the request is made by a group or association, the request must identify one person by name, address, daytime telephone number, and where possible, fax number, who shall be responsible for receiving all official communications and documents for the group;

(2) identify the person's justiciable interest affected by the application, including a brief, but specific, written statement explaining in plain language the requestor's location and distance relative to the proposed facility or activity that is the subject of the application and how and why the requestor believes he or she will be adversely affected by the proposed facility or activity in a manner not common to members of the general public;

(3) request a contested case hearing

(4) list all relevant and material disputed issues of fact that were raised during the public comment period and that are the basis of the hearing request.
To facilitate the commission's determination of the number and scope of issues to be referred to hearing, the requestor should, to the extent possible, specify any of the executive director's responses to comments that the requestor disputes and the factual basis of the dispute and list any disputed issues of law or policy; and

(5) provide any other information specified in the public notice of application[4]

[2] 30 TAC §55.209(e).
[3] 30 TAC §55.201(c).
[4] 30 TAC §55.201(d).

C. Requirement that Requestor be an Affected Person

In order to grant a contested case hearing, the commission must determine that a requestor is an affected person.

(a) For any application, an affected person is one who has a personal justiciable interest related to a legal right, duty, privilege, power, or economic interest affected by the application. An interest common to members of the general public does not qualify as a personal justiciable interest

(b) Governmental entities, including local governments and public agencies with authority under state law over issues raised by the application may be considered affected persons

(c) In determining whether a person is an affected person, all factors shall be considered, including, but not limited to, the following:

(1) whether the interest claimed is one protected by the law under which the application will be considered;
(2) distance restrictions or other limitations imposed by law on the affected interest;
(3) whether a reasonable relationship exists between the interest claimed and the activity regulated;
(4) likely impact of the regulated activity on the health and safety of the person, and on the use of property of the person;
(5) likely impact of the regulated activity on use of the impacted natural resource by the person; and
(6) for governmental entities, their statutory authority over or interest in the issues relevant to the application[5]

D. Referral to the State Office of Administrative Hearings

"When the commission grants a request for a contested case hearing, the commission shall issue an order specifying the number and scope of the issues to be referred to SOAH for a hearing."[6] "The commission may not refer an issue to SOAH for a contested case hearing unless the commission determines that the issue: (1) involves a

[5] 30 TAC § 55.203.
[6] 30 TAC § 50.115(b).

disputed question of fact; (2) was raised during the public comment period; and (3) is relevant and material to the decision on the application."[7]

E. Permit Applications where there is No Right to a Contested Case Hearing

A permit renewal or amendment is not subject to a contested case hearing when:

(A) the applicant is not applying to:

(i) increase significantly the quantity of waste authorized to be discharged; or
(ii) change materially the pattern or place of discharge;

(B) the activity to be authorized by the renewal or amended permit will maintain or improve the quality of waste authorized to be discharged;

(C) any required opportunity for public meeting has been given;

(D) consultation and response to all timely received and significant public comment has been given; and

(E) the applicant's compliance history for the previous five years raises no issues regarding the applicant's ability to comply with a material term of the permit.[8]

V. Analysis of the Hearing Request

A. Whether the Requestor Complied With 30 TAC §§ 55.201(c) and (d).

Sierra Club submitted a timely written contested case hearing (CCH) requests that included contact information and raised disputed issues.

The ED recommends finding that Sierra Club substantially complied with 30 TAC §§ 55.201(c) and (d).

B. Sierra Club does not have a Right to a CCH on this Renewal Application

This is an application for renewal of a wastewater discharge permit and the Commission must determine whether there is a right to a contested case hearing. The CCH requests in this case should be denied under Texas Water Code § 26.028(d) and 30

[7] 30 TAC § 50.115(c).
[8] TEX. WATER CODE § 26.028(d); 30 TAC § 55.201(i)(5).

TAC § 55.201(i)(5), because there is no right to a contested case hearing for this permit renewal. *See* Section E on page 6.

TCEQ's rules provide that there is no right to a CCH for applications that seek to renew or amend a permit under Texas Water Code, Chapter 26, if: the applicant is not applying to increase significantly the quantity of waste authorized to be discharged or change materially the pattern or place of discharge. The activity to be authorized by the renewal or amended permit will maintain or improve the quality of waste authorized to be discharged. Any required opportunity for public meeting has been given; consultation and response to all timely received and significant public comment was done; and the Applicant's compliance history for the previous five years raises no issues regarding the Applicant's ability to comply with a material term of the permit.

The Applicant applied to renew TPDES permit No. WQ0002430000, and did not request authorization to either increase the quantity of its discharge, or to change the pattern or place of its discharge. The Applicant did not request a change to any of the terms in its existing permit. The changes that were made between the existing permit and the proposed permit were recommended to improve the quality of the discharge. For example Other Requirements No. 3 was revised to be consistent with the rules for not discharging polychlorinated bi-phenyls (PCBs), located in 40 Code of Federal Regulations (C.F.R.) §423.13(a). In total, the proposed permit contains eight changes from the existing permit that make the proposed permit more stringent or more consistent with standards found in the C.F.R.

The public was provided an opportunity for a public meeting; however, the ED received only one public meeting request. The ED received public comments from the

Environmental Integrity Project (EIP), and responded to all of EIP's comments in an RTC, which was filed on August 11, 2014. However, because the RTC filed on August 11, 2014 did not respond to comments submitted by Sierra Club in a May 19, 2014 letter, the ED filed a Motion to Remand the Application to the ED on December 5, 2014 so that he could respond to Sierra Club's comments from the May 19, 2014 letter. The motion was granted and the application was remanded to the ED on December 5, 2014. On January 7, 2015, the ED filed an Amended RTC that addressed Sierra Club's comments from the May 19, 2014 letter.

Finally, the compliance history for the Applicant does not raise any issues concerning the ability of the Applicant to comply with the terms of the proposed permit. The Applicant has a classification of "High" for both the company and the facility. *See* Attachment C.

The ED recommends finding that the permit renewal application meets all of the conditions in 30 TAC § 55.201(i)(5) and that there is no right to a CCH in this case.

The ED recommends that the Commission find that Sierra Club is not entitled to a CCH under TWC § 26.028(d) and 30 TAC § 55.201(i)(5).

C. Whether the Issues are Referable to SOAH

In addition to recommending to the Commission those persons who qualify as affected persons, the ED analyzes issues raised in accordance with the regulatory criteria.

(a) Issues raised in the Hearing Request:

The Following issues were raised in the Hearing Request:

(1) Whether the proposed permit will have serious impacts to the

environment and water quality if it is substantially similar to the existing permit.

(2) Whether the proposed permit is internally inconsistent, unclear, and thwarts effective public review.

(3) Whether the proposed permit will comply with the CWA, and state law, including the Water Code and the TSWQS.

(4) Whether the proposed permit fails to include thermal limits.

(5) Whether the proposed permit should limit bacteria discharges into segment (No. 1252) of the Brazos River Basin because its designated uses are recreation, public water supply, and high aquatic life use.

(6) Whether the proposed permit fails to address whether the cooling water intake structures (CWIS) for the facility represent the BAT for minimizing adverse environmental impact.

(7) Whether the proposed permit fails to protect water quality by limiting selenium discharges at Outfalls 003, 006, and 007.

(8) Whether the proposed permit fails to establish TBELs for toxic metals in coal combustion wastewaters.

(b) Issues raised in the Comment Period:

The Following issues were raised in the Comment Period:

(1) Whether the proposed permit will comply with the CWA, and state law, including the Water Code and the TSWQS.

(2) Whether the proposed permit fails to establish TBELs for toxic metals in coal combustion wastewaters.

(c) Issues of Fact:

If the Commission considers an issue to be one of fact, rather than an issue of law or policy, it is appropriate for referral to hearing if it meets all other applicable requirements.[9] The following issues presented are issues of fact.

(1) Whether the proposed permit will comply with the CWA, and state law, including the Water Code and the TSWQS.

(2) Whether the proposed permit fails to establish TBELs for toxic metals in coal combustion wastewaters.

(d) Relevant and Material Issues

To refer an issue to SOAH, the Commission must find that the issue is relevant and material to the Commission's decision to issue or deny a permit.[10] Relevant and material issues are those governed by the substantive law under which the permit is to be issued.[11]

The hearing request does not raise issues relevant and material to the Commission's decision under the requirement of 30 TAC §§ 55.201(d)(4) and 55.211(c)(2)(A) because there is no right to a CCH pursuant to Texas Water Code § 26.028(d) and 30 TAC § 55.201(i)(5).

(e) Issues recommended for Referral:

The ED recommends that no issues be referred to SOAH for a CCH.

[9] 30 TAC §§ 55.201(c), (d)(4), and 55.211(c)(2)(A).
[10] *Anderson v. Liberty Lobby, Inc.,* 477 U.S. 242, 248-51 (1986) (discussing the standards applicable to reviewing motions for summary judgment the Court stated "[a]s to materiality, the substantive law will identify which facts are material … it is the substantive law's identification of which facts are critical and which facts are irrelevant that governs").
[11] *Id.*

VI. Executive Director's Recommendation

The ED recommends the following actions by the Commission:

1. Find that there is no right to a contested case hearing under TWC § 26.028(d) and 30 TAC § 55.201(i)(5); and

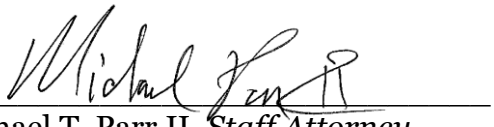
2. Deny the Contested Case Hearing Request of Sierra Club.

Respectfully submitted,

Texas Commission on Environmental Quality

Richard A. Hyde, P.E., Executive Director

Robert Martinez, Environmental Law Division Director

By 

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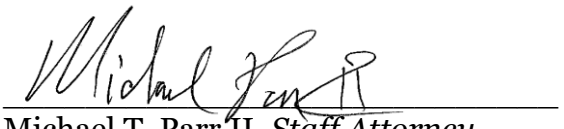
REPRESENTING THE EXECUTIVE DIRECTOR OF THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

CERTIFICATE OF SERVICE

I certify that on April 6, 2015 the original and seven true and correct copies of the Executive Director's Response to Hearing Request on the application for NRG Texas Power, LLC, for a renewal to TPDES Permit No. WQ0002430000 were filed with the Chief Clerk of the TCEQ and a copy was served to all persons listed on the attached mailing list via electronic mail, hand delivery, facsimile transmission, inter-agency mail, or by deposit in the U.S. Mail.



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DOCKET NO. 2014-1371-IWD; PERMIT NO. WQ0002430000

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ATTACHMENT A

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. 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 (CaCO3) 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.	

Appendix A

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)	0.432	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

Appendix B

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

Appendix B

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} = (TDS CC / 500 mg/L) * 2,500 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

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.**	

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.**	

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

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 discharging 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.

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.

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.

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.

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.

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.

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.

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.

TCEQ Revision 08/2008

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. COOLING WATER INTAKE STRUCTURE REQUIREMENTS: 316(b) of the Clean Water Act (CWA)

    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 SO3)						
Surfactants						
Total Boron						
Total Cobalt						
Total Iron						
Total Magnesium						
Total Molybdenum						
Total Manganese						

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

	Effluent Concentration (µg/L)*			
Pollutants	**Average**	**Maximum**	**No. of Samples**	**MAL (µg/L)**
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.

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.

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

Dates and Times Composites Collected — Date Time Date Time

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

Dates and Times Composites Collected — Date Time / Date Time

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.

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.”

ATTACHMENT B

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;

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.

ATTACHMENT B

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

ATTACHMENT B

TCEQ INTRA-AGENCY TRANSMITTAL MEMO

DATE: 08/11/2014

TO: FINAL DOCUMENTS TEAM LEADER
OFFICE OF THE CHIEF CLERK

BUILDING F, MC-105

FROM: MICHAEL T. PARR II
ENVIRONMENTAL LAW DIVISION
BUILDING A, MC-173

Attached: Executive Director's Response to Comments

Application Information
Program Area (Air, Water or Waste): Water
Permit No. **WQ0002430000**
Name: **NRG Texas Power, LLC**
Docket/CID Item # (if known): _____

OCC Action Required *(check applicable boxes)*
Date stamp and return copy to above-noted ELD Staff Attorney and:

FOR ALL PROGRAM AREAS: *(required only when changes needed to official agency mailing list)*

☐ **Update** the mailing list in your file with the attached contact names and addresses
Include corrected or additional names and addresses for mailing list

FOR WASTE & WATER:

■ Send Response to Comments Letter which solicits hearing requests and requests for reconsideration to the mailing list in your files
For Waste and Water this would occur in all circumstances when comments have been received for 801 applications

Or

☐ Send Response to Comments Letter and Motion to Overturn Letter which solicits motions to overturn to the mailing list in your files
For Waste and Water this may occur when all comments have been withdrawn for 801 applications or when comments are received for applications that will not be set for agenda.

FOR AIR (NSR only):

☐ Send RTC with response to comments letter which solicits contested case hearing requests and requests for reconsideration to the mailing list in your files
For Air NSR applications this would occur only when there are pending contested case hearing requests (except no-increase renewals)

☐ Set for commission agenda and send RTC with agenda setting letter
This would occur when there are pending contested case hearing requests on a no-increase renewal and technical review is complete.

☐ Hold until a commission agenda date is requested and then send RTC with the Agenda Setting Letter
For Air applications this would occur when there are pending hearing requests on a no-increase renewal; but technical review is NOT complete. If this box is checked, ED staff must call the OCC Agenda Team Leader to arrange a specific agenda date.

☐ Place RTC in File - no further action required by OCC
For Air NSR applications this would occur when the matter is uncontested but comments were received, APD will send a copy with MTO letter

■ Other Instructions: Please send an electronic filed copy to Gordon.Cooper@tceq.texas.gov

TPDES Permit No. WQ0002430000

APPLICATION by	§	**BEFORE THE**
NRG TEXAS POWER, LLC	§	**TEXAS COMMISSION**
for TPDES Permit No.	§	**ON ENVIRONMENTAL**
WQ0002430000	§	**QUALITY**

EXECUTIVE DIRECTOR'S RESPONSE TO PUBLIC COMMENT

The Executive Director (ED) of the Texas Commission on Environmental Quality (the commission or TCEQ) files this Response to Public Comment (Response) on the application by NRG Texas Power, LLC (Applicant) for a renewal of Texas Pollutant Discharge Elimination System (TPDES) permit No. WQ0002430000, and on the ED's preliminary decision on the application. As required by Title 30 of the Texas Administrative Code (30 TAC) Section (§) 55.156, before a permit is issued, the ED prepares a response to all timely, relevant and material, or significant comments. The Office of the Chief Clerk timely received a comment letter from Jennifer Duggan on behalf of Environmental Integrity Project (EIP). This response addresses all timely public comments received, whether or not withdrawn. If you need more information about this permit application or the wastewater permitting process, please call the TCEQ Public Education Program at 1-800-687-4040. General information about the TCEQ can also be found at our website at http://www.tceq.texas.gov/.

BACKGROUND

The Applicant, who operates the Limestone Electric Generating Station; applied to the TCEQ for a renewal of TPDES 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 (max) flow not to exceed 2.304 million gallons per day (MGD) via Outfall 001. Via Outfall 002, the proposed permit authorizes material handling area-runoff, washdown and bottom ash transport water, and low volume waste to be discharged on an intermittent and flow-variable basis. Via Outfalls 003 and 004, authorized discharges consist of bottom ash transport water, low volume waste, and stormwater runoff at a daily max flow not to exceed 0.51 MGD (003), and 0.432 MGD (004). Via Outfall 005, authorized discharges consist of low volume waste, metal cleaning waste, bottom ash transport water, and utility wastewater at a daily max flow not to exceed 0.216 MGD. Via Outfalls 006 and 007, authorized discharges consist of treated domestic wastewater at a daily average flow not to exceed 0.06 MGD (006), and 3,000 gallons per day (007). Via Outfall 008, authorized discharges consist of bottom ash transport water and low volume waste at a daily max flow not to exceed 0.072 MGD.

Description of Facility

The Limestone Electric Generating Station (facility), a lignite-coal-fired steam-electric generating station, 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, Limestone County, Texas 75846. The discharge route for all outfalls ends at Lake Limestone in Segment No. 1252 of the Brazos River Basin. However, via Outfalls 001, 003, and 006, the discharge route is first to the original channel of Lynn Creek, then to Lambs Creek; via Outfalls 002, 007, and 008, first to the relocated channel of Lynn Creek, then to Lambs Creek; and via Outfalls 004 and 005, first to unnamed tributaries of Lambs Creek, then to Lambs Creek. The unclassified receiving waters in the original and relocated channels of Lynn Creek, the unnamed tributaries of, and Lambs Creek, are all minimal aquatic life use. The designated uses for Segment No. 1252 are primary contact recreation, public water supply, and high aquatic life use.

Procedural Background

The TCEQ received the renewal application on May 23, 2013, and declared it Administratively Complete on July 1, 2013. The Applicant published the Notice of Receipt and Intent to Obtain a Water Quality Permit (NORI) in Limestone County, Texas on July 3, 25 2013 in the *Mexia News*, on July 25, 2013 in the *Teague Chronicle,* and on July 26, 2013 in the the *La Cara* Spanish Newspaper. The ED completed the technical review of the application on December 17, 2013, and prepared a draft permit, which if approved, would establish the conditions under which the facility must operate. The Applicant published the Notice of Application and Preliminary Decision for a Water Quality Permit (NAPD) on April 17, 2014, in the *Mexia News* and the *Teague Chronicle,* and on April 18, 2014 in the *La Cara* Spanish Newspaper. The public comment period closed on May 19, 2014. This application was administratively complete on or after September 1, 1999; therefore, this application is subject to the procedural requirements adopted pursuant to House Bill 801, 76th Legislature, 1999.

Access to Rules, Laws and Records

All administrative rules: Secretary of State Website: www.sos.state.tx.us
TCEQ rules: Title 30 of the Texas Administrative Code: www.sos.state.tx.us/tac/ (select TAC Viewer on the right, then Title 30 Environmental Quality)
Texas statutes: http://www.statutes.legis.state.tx.us/
TCEQ website: http://www.tceq.texas.gov/ (for downloadable rules in WordPerfect or Adobe PDF formats, select "Rules," then "Current TCEQ Rules," then "Download TCEQ Rules")
Federal rules: Title 40 of the Code of Federal Regulations (C.F.R.): www.epa.gov/epahome/ cfr40.htm
Federal environmental laws: www.epa.gov/epahome/laws.htm
Environmental or Citizen Complaints may be filed online at: http://www.tceq.state.tx.us/enforcement/complaints/index.html.
Or by sending an email to the following address: cmplaint@TCEQ.state.tx.us.

Commission records for the proposed facility are available for viewing and copying at TCEQ's main office in Austin, located at 12100 Park 35 Circle, Building E, Room 103 (Central Records, for existing or past permits), or Building F, 1st Floor (Office of Chief Clerk, for the current application until final action is taken). The permit application,

proposed permit, technical summary, and the ED's preliminary decision have been available for viewing and copying at the Gibbs Memorial Library, located at 305 East Rusk Street, Mexia, Texas 76667, and at the Teague Public Library, located at 400 Main Street, Teague, Texas 75860.

The ED has determined that the proposed permit, if issued, meets all statutory and regulatory requirements and is protective of the environment, water quality, and human health. However, if you would like to file a complaint about the facility concerning its compliance with provisions of its permit or with TCEQ rules, you may contact the Agency at 1-888-777-3186 or you may contact the TCEQ Region 9 Office at (254) 751-0335 to address potential permit violations. If an inspection by the Regional office finds that the facility is out of compliance, the facility may be subject to enforcement actions.

COMMENTS and RESPONSES

Comment 1

Jennifer Duggan, on behalf of EIP, commented that the effluent limits in the proposed permit do not reflect that Applicant's ability to achieve "zero discharge" at the facility, and further that the proposed permit does not prohibit discharges from any of the outfalls at the facility.

Response 1

The Applicant's ability to achieve "zero discharge" at the facility during the two years prior to its application for a renewal of its TPDES permit was the result of voluntary actions to conserve water that reduced the likelihood of a discharge at the facility. Though the Applicant has indicated it continues to desire to operate the facility in a manner so as not to discharge to waters in the state; the Applicant requested authorization to discharge under its TPDES permit if such a need arises.

Texas Water Code (TWC) § 26.027 authorizes the TCEQ to issue permits to control the discharge of wastes or pollutants into state waters and to protect the water quality of the state's rivers, lakes and coastal waters. The application submitted by the Applicant was for a renewal of a TPDES permit, which authorizes discharges into water in the state under set of prescribed conditions. The ED does not have the authority to mandate a different type of application nor a different type of wastewater treatment plant. The ED evaluates applications for wastewater treatment plants based on the information provided in the application. Nonetheless, TPDES permit No. WQ0002430000 specifically states the wastewaters authorized for discharge under the permit. The discharge of any wastewater(s) not listed as authorized for discharge in TPDES permit No. WQ0002430000 would result in a violation of the permit, the TWC, and the Clean Water Act (CWA), resulting in an enforcement action against the Applicant.

Comment 2

Jennifer Duggan, on behalf of EIP, commented that the application and proposed permit both fail to provide analytical data for wastewater discharged from the facility

and are in violation of the federal CWA and state and federal regulations for the following reasons.

First, the CWA requires a detailed application before a discharge of pollution into surface waters occurs in order for the TCEQ to have the information required to make a reasoned decision to limit pollution and protect surface waters. Likewise, 40 Code of Federal Regulations (C.F.R.) § 122.21(g)(1)-(7) and (9)-(13) require TPDES permit applications to include a detailed description of the process or operation that contributes wastewater to facility effluent and complete quantitative data for certain pollutants, of which neither the application nor the proposed permit include. Moreover, 40 C.F.R. § 122.21(g)(7)(v) requires the that the application and proposed permit report quantitative data at each outfall for certain pollutants listed in various tables in Appendix D of 40 C.F.R. § 122.21, which neither do.

Second the application and proposed permit fail to report quantitative data at each outfall for Biochemical Oxygen Demand-5-day (BOD5), Chemical Oxygen Demand, Total Organic Carbon, Total Suspended Solids (TSS), Ammonia (as N), Summer and Winter Temperatures, and pH, as 40 C.F.R. § 122.21(g)(7)(iii) requires. Ms. Duggan notes that 40 C.F.R. § 122.21(g)(iV) does allow reporting requirements for individual point sources or for a particular industry category for one or more of the pollutants listed in 40 C.F.R. § 122.21(g)(7)(iii) to be waived if an Applicant demonstrates issuance of a permit can be obtained with less stringent requirements. Ms. Duggan, however, states that there has been no indication that a waiver has been extended.

Ms. Duggan further comments that the permit's requirement for the Applicant to sample wastewater at all the outfalls for a later determination of whether additional effluent limitations and monitoring requirements are necessary, is not in accordance with the CWA.

Response 2

The Applicant did not submit effluent data with the application because the facility did not discharge during the two years prior to applying for a renewal of its TPDES permit. All the same, the proposed permit was developed in accordance with the Texas Surface Water Quality Standards (TSWQS), which are designed to maintain the quality of water in the state and to be protective of human health and the environment. Thus, the proposed permit contains both Technology Based Effluent Limits (TBELs) and Water Quality Based Effluent Limits (WQBELs) that are continued from the previous permit, and are still considered to be protective. Appendix C of the Fact Sheet and ED's preliminary decision contains a summary of the TBELs assessed in the proposed permit, calculated/assessed WQBELs, and effluent limitations from the existing permit. When a discharge occurs from any of the facilities' outfalls pursuant to its permit, the discharge is subject to Other Requirement No. 13 of the proposed permit. Other Requirement No. 13 requires the Applicant to complete "Attachment A" of the permit (Tables 1, 2, 3, 4, and 5) with the analytical results for Outfalls 001, 002, 003, 004, 005, 006, 007, and 008 and then send the data to the TCEQ-Wastewater Permitting Section (MC-148) within 60 days after the Applicant obtains the data. TCEQ Staff will then

compare the effluent data to the calculated water quality-based effluent limitations contained in Appendix B of the Fact Sheet and Executive Director's Preliminary Decision. Based on a technical review of the submitted analytical results, TCEQ staff may initiate a permit amendment to include additional effluent limitations or monitoring requirements, or both if the data indicates that the effluent has the potential to exceed any water quality-based effluent limits.

Guidance from the United States Environmental Protection Agency's (EPA) *Permit Writer's Manual* (September 2010), page 6-23, states that when determining the need for a WQBEL, a permit writer should use any available effluent and receiving water data as well as other information pertaining to the discharge and receiving water, as the basis for a decision. The permit writer might already have data available from previous monitoring or he or she could decide to work with the permittee to generate data before permit issuance or as a condition of the permit. The EPA recommends that monitoring data be generated before effluent limitation development whenever possible and monitoring should begin far enough in advance of permit development to allow sufficient time to conduct chemical analyses. Where data is generated as a condition of the permit, it is appropriate for the permit writer to include a reopener condition in the permit to allow the incorporation of a WQBEL if the monitoring data indicates that a WQBEL is required.

Along these lines, Other Requirement No. 11 in the proposed permit is consistent with guidance in the US EPA *Permit Writer's Manual* (September 2010).

Comment 3

Jennifer Duggan, on behalf of EIP, commented that the application and proposed permit fail to comply with the CWA and state and federal regulations because the proposed permit does not set TBELs for the numerous toxic pollutants found in wastewaters such as coal ash transport water and coal combustion leachate that are routinely discharged from the facility. Ms. Duggan comments that CWA §§ 301, 302 (a), 402(a)(1); 40 C.F.R. § 122.44 (a) and (e); and 30 TAC § 305.531 require that TPDES permits must include, for all pollutants discharged, TBELs that are reflective of the pollution controls for the best available technology economically achievable (BAT), unless more stringent WQBELs are required to avoid exceedances of water quality standards.

Response 3

Effluent limitations developed from federal categorical effluent limitations guidelines (ELGs) that are generated from national standards developed by the EPA on an industry-by-industry basis, are intended to represent the greatest pollutant reductions that are economically achievable for an industry. The categorical effluent limitations in the proposed permit were developed in accordance with 40 C.F.R. § 423 (Steam Electric Power Generating Point Source Category). Detailed information is located in Appendix A of the Fact Sheet and Executive Director's Preliminary Decision as to how the TBELs are applied in the permit under 40 C.F.R. § 423.

For discharges via Outfalls 001 – 005 and Outfall 008, the TCEQ has established all applicable TBELs, including those applicable for bottom ash transport water, based on the ELGs located in 40 C.F.R, § 423.15. The proposed permit contains WQBELs for Total Selenium at Outfalls 001 – 005 and Outfall 008. Additionally, discharges via Outfall 001 are subject to reporting requirements for total copper and discharges via Outfall 005 are subject to a WQBEL for total copper. Likewise, Operational Requirement No. 2, found on page 11 of the proposed permit subjects the discharges of all wastewaters from the facility to effluent limitations for hazardous metals to inland waters such as arsenic, barium, cadmium, chromium, , copper, lead, manganese, mercury, nickel, selenium, silver, and zinc, found in 30 TAC § 319.22.

The proposed permit also contains Whole Effluent Toxicity (WET) testing requirements. WET testing is designed to protect receiving water quality from the aggregate toxic effect of a mixture of pollutants in the effluent. WET tests measure the degree of response exhibited by aquatic test organisms when exposed to treated effluent. If WET testing indicates actual or potential ambient toxicity in the receiving water, then the permit may be reopened to require additional/revised effluent limits, additional testing, or other appropriate actions to address toxicity.

The TCEQ concludes that based on the existing TBELs and WQBELs in the permit, the limitations and requirements of WET testing in the permit, and the placement of Other Requirement No. 13 in the permit, that the proposed permit fully complies with the CWA and state and federal regulations.

Comment 4

Jennifer Duggan, on behalf of EIP, states that the EPA is finalizing ELGs for 27 pollutants it has identified in coal-fired power plants' coal ash-wastewaters. Ms. Duggan comments that currently, not only does the proposed permit not contain limits for most toxic pollutants identified in coal combustion wastewater by the EPA; the effluent limits that are identified appear to be WQBELs not TBELs. Ms. Duggan further comments that the proposed permit authorizes discharges of ash transport water from Outfalls 001-005, 008, and stormwater discharges with coal combustion wastes from Outfall 002, but only limits discharges of Free Available Chlorine, total dissolved solids, and total iron, copper, and selenium beyond the already established-outdated ELGs for Total Suspended Solids and oil and grease.

Ms. Duggan comments that the CWA, and EPA and TCEQ regulations require that the TCEQ establish, based on best professional judgment, TBELs for discharges when the 27 pollutants are present in coal ash-wastewater. Ms. Duggan continues by stating that the TCEQ can use data available from the EPA and power plants in Texas for development of BAT TBELs and apply those limitations in the proposed permit. In the alternative, Ms. Duggan comments that if TBELs for the 27 pollutants are not developed and placed in the permit, based on NRG having already achieved "zero discharge" by treating and recycling its wastewaters, TCEQ should prohibit discharges from Outfalls 001 – 005 and Outfall 008.

Response 4

The Applicant's ability to achieve "zero discharge" at the facility was the result of voluntary actions to conserve water that reduced the likelihood of a discharge at the facility. The Applicant continues to desire to operate the facility in a manner so as not to discharge to the water in the state but has requested that it be allowed to retain its authorization to discharge under its TPDES permit if such a need arises. The ED does not have the authority to dictate what an Applicant requests in an application, nor can the TCEQ mandate a different type of application or a different type of wastewater treatment plant. The ED evaluates applications for wastewater treatment plants based on the information provided in the application.

The TCEQ currently requires analytical data for pollutants to be submitted with the application for all but four of the 27 pollutants (calcium, sodium, vanadium, and yttrium) cited by EIP. At this time, there are no specific requirements for analytical data for calcium, sodium, vanadium, and yttrium to be included in the application.

The EPA stated in its 2009 *Steam Electric Power Generating Point Source Category: Final Detailed Study Report* that "Several analytes, such as yttrium, were included in the analyte list because of pre-established laboratory contracts and perhaps would not have been individually selected for inclusion."[1] That statement highlights that until the EPA has promulgated effluent limitations and monitoring requirements for the 27 pollutants, the TCEQ has no reasonable basis to establish TBELs in the permit based on BPJ, for the 27 pollutants as indicated by EIP.

If the TCEQ determines that any pollutant(s) are present in a discharge from a facility at levels which TCEQ determines will require reporting or effluent limitations to be placed in the permit, TBELs, WQBELs, monitoring requirements, discharge requirements, or a combination of any of these will be placed in the permit as needed or as required by rules and regulations.

The TCEQ concludes, based on the permit's existing TBELs and WQBELs, its limitations and requirements for WET testing, and the addition of Other Requirement No. 13, the proposed permit will provide water quality protection until such time that a discharge occurs at an outfall covered under the permit and NRG submits the analytical data required under Other Requirement No. 13.

However, TCEQ agrees with EIP that additional information from NRG is needed to provide complete information of the pollutants being discharged by the facility. Therefore additional tables of pollutants have been added to Other Requirement item No. 13 (Table 5 of Worksheet 2.0 of the application), which are required to be completed in the TPDES permit application.

[1] U.S. EPA, *Steam Electric Power Generating Point Source Category: Final Detailed Study Report,* EPA 821-R-09-008, 2-11 (October 2009).

Comment 5

Jennifer Duggan, on behalf of EIP, states that without protective liners, coal combustion waste landfills and impoundments routinely seep or leak dangerous toxins into ground and surface waters. These leaks in pollution containments systems for coal combustion waste landfills and impoundments, are point sources according to CWA § 502(14) and are considered discharges to ground or surface waters without a permit that are prohibited by the CWA.

Ms. Duggan comments that the facility has one landfill and several impoundments that handle coal combustion waste and that an NRG submission to the EPA states that the impoundments do not have protective composite liners, it is also unclear if even the landfill has a protective composite liner.

Hence, Ms. Duggan comments, the TCEQ must assess whether NRG is discharging pollution from its coal combustion waste landfill and impoundments without a permit, and if needed, address all discharges associated with the landfill and impoundments.

Response 5

As indicated by EIP, the Applicant provided additional information to the EPA about the liner for the material handling area (landfill). Currently, assessment and regulation of seepage of leachate from a landfill due to a leaking liner is covered under the Resource Conservation and Recovery Act (RCRA) and not under the scope of TPDES permitting program or the requirements and conditions of TPDES Permit No. WQ0002430000.

However, section X.C.1. of the Fact Sheet and Executive Director's Preliminary Decision and No. 1 of the Effluent Limitations and Monitoring Requirements page for Outfall 002 (page 2a of the permit) lists "material handling area runoff" as an authorized waste stream at Outfall 002 and it is defined in Other Requirement No. 4.c. of the permit. The material handling area at the facility includes the landfill where ash from coal combustion is stored. The leachate from the landfill is identified through the definition of "material handling area runoff" in Other Requirement No. 4.c. where rainfall runoff from or *through* any coal, ash, or other material storage pile coming from the material handling area are routed to a sedimentation pond for the removal of solids and equalization and then discharged either to Lynn Creek via Outfall 002, or routed for re-use in the Flue Gas Desulphurization (FGD) system. NRG provided information in its TPDES permit application for renewal of its permit (WQ0002430000), which indicates that clay liners are used in the impoundments at the Limestone Electric Generating Station.

CHANGES MADE TO THE PERMIT IN RESPONSE TO COMMENT

- Additional tables of pollutants have been added to Other Requirement item No. 13 (Table 5 of Worksheet 2.0 of the application), which are required to be completed in the TPDES permit application if the facility discharges.

Respectfully submitted,

Texas Commission on Environmental Quality

Richard A. Hyde, P.E., Executive Director

Robert Martinez, Environmental Law Division Director

By _____
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REPRESENTING THE EXECUTIVE DIRECTOR OF THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

CERTIFICATE OF SERVICE

I certify that on August 11, 2014, the Executive Director's Response to Public Comment for Permit No. WQ0002430000 was filed with the Texas Commission on Environmental Quality's Office of the Chief Clerk.

Michael T. Parr II, *Staff Attorney*
Environmental Law Division
State Bar No. 24062936

TPDES Permit No. WQ0002430000

APPLICATION by	**§**	**BEFORE THE**
NRG TEXAS	**§**	**TEXAS**
POWER, LLC for	**§**	**COMMISSION ON**
TPDES Permit No.	**§**	**ENVIRONMENTAL**
WQ0002430000	**§**	**QUALITY**

EXECUTIVE DIRECTOR'S AMENDED RESPONSE TO PUBLIC COMMENT

The Executive Director (ED) of the Texas Commission on Environmental Quality (the commission or TCEQ) files this Response to Public Comment (Response) on the application by NRG Texas Power, LLC (Applicant) for a renewal of Texas Pollutant Discharge Elimination System (TPDES) permit No. WQ0002430000, and on the ED's preliminary decision on the application. As required by Title 30 of the Texas Administrative Code (30 TAC) Section (§) 55.156, before a permit is issued, the ED prepares a response to all timely, relevant and material, or significant comments. The Office of the Chief Clerk timely received comment letters from Joshua Smith on behalf of Sierra Club and Jennifer Duggan on behalf of Environmental Integrity Project (EIP). This response addresses all timely public comments received, whether or not withdrawn. If you need more information about this permit application or the wastewater permitting process, please call the TCEQ Public Education Program at 1-800-687-4040. General information about the TCEQ can also be found at our website at http://www.tceq.texas.gov/

The ED files this Amended Executive Director's Response to Comment in order to address comments from Sierra Club in a letter dated May 19, 2014, that were not previously responded to in the original Response to Comment.

BACKGROUND

The Applicant, who operates the Limestone Electric Generating Station; applied to the TCEQ for a renewal of TPDES 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 (max) flow not to exceed 2.304 million gallons per day (MGD) via Outfall 001. Via Outfall 002, the proposed permit authorizes material handling area-runoff, washdown and bottom ash transport water, and low volume waste to be discharged on an intermittent and flow-variable basis. Via Outfalls 003-004, authorized discharges consist of bottom ash transport water, low volume waste, and stormwater runoff at a daily max flow not to exceed 0.51 MGD (003), and 0.432 MGD (004). Via Outfall 005, authorized discharges consist of low volume waste, metal cleaning waste, bottom ash transport water, and utility wastewater at a daily max flow not to exceed 0.216 MGD. Via Outfalls 006-007, authorized discharges consist of treated domestic wastewater at a daily average flow not to exceed 0.06 MGD (006), and 3,000 gallons per day (007). Via Outfall 008, authorized discharges consist of bottom ash transport water and low volume waste at a daily max flow not to exceed 0.072 MGD.

Description of Facility

The Limestone Electric Generating Station (facility), a lignite-coal-fired steam-electric generating station, 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, Limestone County, Texas 75846. The discharge route for all outfalls ends at Lake Limestone in Segment No. 1252 of the Brazos River Basin. However, via Outfalls 001, 003, and 006, the discharge route is first to the original channel of Lynn Creek, then to Lambs Creek; via Outfalls 002, 007, and 008, first to the relocated channel of Lynn Creek, then to Lambs Creek; and via Outfalls 004 and 005, first to unnamed tributaries of Lambs Creek, then to Lambs Creek. The unclassified receiving waters in the original and relocated channels of Lynn Creek, the unnamed tributaries of, and Lambs Creek, are all minimal aquatic life use. The designated uses for Segment No. 1252 are primary contact recreation, public water supply, and high aquatic life use.

Procedural Background

The TCEQ received the renewal application on May 23, 2013, and declared it Administratively Complete on July 1, 2013. The Applicant published the Notice of Receipt and Intent to Obtain a Water Quality Permit (NORI) in Limestone County, Texas on July 3, 25 2013 in the *Mexia News*, on July 25, 2013 in the *Teague Chronicle,* and on July 26, 2013 in the the *La Cara* Spanish Newspaper. The ED completed the technical review of the application on December 17, 2013, and prepared a draft permit, which if approved, would establish the conditions under which the facility must operate. The Applicant published the Notice of Application and Preliminary Decision for a Water Quality Permit (NAPD) on April 17, 2014, in the *Mexia News* and the *Teague Chronicle,* and on April 18, 2014 in the *La Cara* Spanish Newspaper. The public comment period closed on May 19, 2014. This application was administratively complete on or after September 1, 1999; therefore, this application is subject to the procedural requirements adopted pursuant to House Bill 801, 76th Legislature, 1999.

Access to Rules, Laws and Records

All administrative rules: Secretary of State Website: www.sos.state.tx.us
TCEQ rules: Title 30 of the Texas Administrative Code: www.sos.state.tx.us/tac/ (select TAC Viewer on the right, then Title 30 Environmental Quality)
Texas statutes: http://www.statutes.legis.state.tx.us/
TCEQ website: http://www.tceq.texas.gov/ (for downloadable rules in WordPerfect or Adobe PDF formats, select "Rules," then "Current TCEQ Rules," then "Download TCEQ Rules")
Federal rules: Title 40 of the Code of Federal Regulations (C.F.R.): www.epa.gov/epahome/ cfr40.htm
Federal environmental laws: www.epa.gov/epahome/laws.htm
Environmental or Citizen Complaints may be filed online at: http://www.tceq.state.tx.us/enforcement/complaints/index.html.
Or by sending an email to the following address: cmplaint@TCEQ.state.tx.us.

Commission records for the proposed facility are available for viewing and copying at TCEQ's main office in Austin, located at 12100 Park 35 Circle, Building E, Room 103 (Central Records, for existing or past permits), or Building F, 1st Floor (Office of Chief Clerk, for the current application until final action is taken). The permit application, proposed permit, technical summary, and the ED's preliminary decision have been available for viewing and copying at the Gibbs Memorial Library, located at 305 East Rusk Street, Mexia, Texas 76667, and at the Teague Public Library, located at 400 Main Street, Teague, Texas 75860.

The ED has determined that the proposed permit, if issued, is protective of the environment, water quality, and human health because it meets all statutory and regulatory requirements, including the Texas Surface Water Quality Standards (TSWQS). However, if you would like to file a complaint about the facility concerning its compliance with provisions of its permit or with TCEQ rules, you may contact the Agency at 1-888-777-3186 or you may contact the TCEQ Region 9 Office at (254) 751-0335 to address potential permit violations. If an inspection by the Regional office finds that the facility is out of compliance, the facility may be subject to enforcement actions.

COMMENTS and RESPONSES

Comment 1

Joshua Smith, on behalf of Sierra Club, commented that on May 9, 2014, the Sierra Club submitted a Public Information Request (PIR) to the TCEQ requesting copies of the proposed permit and its application, but that the TCEQ had not responded to the PIR.

Response 1

The TCEQ received the PIR form from Kadie McShirley of the Sierra Club, by email on May 9, 2014 and through regular mail on May 22, 2014. In an email dated May 20, 2014, the Water Quality Division's PIR Team member informed Ms. McShirley that the files in connection with the PIR had been located and the estimated cost for the documents was $106.00 plus postage, handling, and (possible) off-site storage. The email also informed Ms. McShirley that the documents could be obtained free of charge by retrieving them in person at the TCEQ offices. To date, neither Ms. McShirley, nor any other Sierra Club representative responded to the email from the Water Quality Division's PIR Team member.

Comment 2

Joshua Smith, on behalf of Sierra Club, commented that the Sierra Club filed a request for additional time to file comments on the application because TCEQ staff had not yet provided Sierra Club with a copy of the draft permit, the fact sheet, or the permit's application in response to the PIR submitted by Sierra Club on May 9, 2014.

Response 2

In a letter dated May 28, 2014 (May 28-letter), the ED advised the Sierra Club that the Chief Clerk had received the request for additional time to file comment on the proposed

permit. Sierra Club was advised, however, that according to the TCEQ's Public Comment rules (30 TAC § 55.152(a)), "public comments must be filed with the chief clerk within the time period specified in the notice," and that "the public comment period [must] end 30 days after the last publication of the [NAPD]." The May 28-letter recounted the facts of the administrative record that the Applicant published the NAPD in English on April 17, 2014, and in Spanish on April 18, 2014. Additionally, the May 28-letter also spoke to the TCEQ's Public Notice rules' provision that requires applicants to "make a copy of the application available for review and copying at a public place in the county in which the facility is located or proposed to be located" (30 TAC § 39.405(g)). Again, the May 28-letter recounted the facts of the administrative record that consistent with the requirement above, the NORI the Applicant published in English on July 25, 2014 and in Spanish on July 30, 2014, included the location where the permit application was available for viewing and copying. The following passage appeared in both the NORI and NAPD: "The permit application is available for viewing and copying at the Gibbs Memorial Library, 305 East Rusk Street, Mexia, Texas and at the Teague Public Library, 400 Main Street, Teague, Texas." In addition, the May 28-letter reiterated that the NORI solicited public comment on the application and the NAPD solicited public comments, and also provided a 30-day deadline from the date of newspaper publication of the notice for filing comments.

The May 28-letter advised Sierra Club that although the TCEQ's Public Comment rules (30 TAC § 55.152(a)(6)) authorized the ED to extend the comment period for a permit application for good cause, the ED was denying the request for extension of time because Sierra Club had failed to articulate "good cause" for its request.

The May 28-letter also advised Sierra Club that the PIR it submitted was processed according to the Texas Public Information Act's procedures related to access, (Chapter 552, subchapter E of the Texas Government Code), but that the filing of a PIR was not "good cause" to extend the public comment period in this instance. This was because Sierra Club had over nine months to file comments (July 25, 2013-May 19, 2014), it had waited until the end of the comment period to file an extension request, and the documents it requested pursuant to the PIR, were available for review and copying at two different locations as stated in the Public Notices.

Comment 3

Joshua Smith, on behalf of Sierra Club, commented that the proposed permit would have serious impacts to the environment and water quality if it is substantially similar to the existing TPDES permit.

Response 3

The ED does not expect that discharges, authorized under the proposed permit from the facility (when they occur), will have adverse impacts to the environment or water quality. Because of the technology-based effluent limitations, water quality-based effluent limitations, and requirements of WET testing placed in the proposed permit, the proposed permit meets all current state and federal regulations guidelines for discharges of wastewater from industrial facilities, such as coal-burning power plants.

Comment 4

Joshua Smith, on behalf of Sierra Club, commented that the existing permit, if renewed, would not comply with the Federal Clean Water Act (CWA) and state law, including the Texas Water Code and the Texas Surface Water Quality Standards (TSWQS).

Response 4

The proposed permit's technology-based effluent limitations (TBELs), water quality-based effluent limitations (WQBELs), and requirements for WET testing to protect aquatic life, human health, and the preservation of the designated uses of the water in the receiving stream, demonstrates the proposed permit's compliance with the CWA and state law, including the Texas Water Code and the TSWQS.

Comment 5

Joshua Smith, on behalf of Sierra Club, commented that the proposed permit fails to establish TBELs for toxic metals in coal combustion wastewaters.

Response 5

The proposed permit does not contain TBELs or requirements for toxic metals in coal combustion wastewaters because the EPA is still in the process of promulgating the rules that will contain those limitations and requirements. In the EPA's review of the draft permit, no interim objection to the permit was made citing the need to establish TBELs for toxic metals in coal combustion wastewaters from the proposed rules. Also see the TCEQ's responses to the comments from Jennifer Duggan on behalf of EIP in Responses 13 and 14.

Comment 6

Joshua Smith, on behalf of Sierra Club, commented that the proposed permit fails to protect water quality by limiting selenium discharges at Outfalls 003, 006, and 007.

Response 6

WQBELs for total selenium are not present in the proposed permit at Outfalls 003, 006, and 007 because no discharges via Outfalls 001 thru 008 were recorded during the two years prior to the Applicant applying for a renewal of the TPDES permit, and therefore, screening of analytical data during the technical review of the permit was not possible.

However, Other Requirement No. 13 was added to the proposed permit and requires that for future discharges made via Outfalls 001 thru 008, the Applicant must conduct sampling and submit analytical data of the screening for the parameters listed in Tables 1 through 5 of Attachment A of the proposed permit.

Based on a technical review of the analytical data submitted pursuant to Other Requirement No.13, TCEQ staff may initiate an amendment to the permit to include any additional water quality-based effluent limitations or monitoring requirements. Additional WQBELs or monitoring requirements may be applicable to any of the

parameters listed in Tables 1 through 5 if effluent levels exceed thresholds of 70% (for requiring water quality-based monitoring and reporting of effluent levels) or 85% (for requiring water quality-based effluent limits) of the calculated water quality-based effluent limitations located in Appendix B of the fact sheet.

Comment 7

Joshua Smith, on behalf of Sierra Club commented that the proposed permit fails to include thermal limits.

Response 7

Based on an agreement reached by the TCEQ and the EPA on the development and implementation of temperature limits in TPDES permits, a requirement is to be placed in any TPDES individual permit with an existing temperature limit that exceeds the segment criteria for temperature, which is located in the Texas Surface Water Quality Standards. The requirement must state that the permittee shall develop and submit a plan to the TCEQ that characterizes the thermal plume in the receiving water, using a model, mass balance, or via collected or existing in-stream temperature data and then implement the plan following its approval by the TCEQ. Other Requirement No. 10 was placed in the proposed permit and meets with the agreement reached by the TCEQ and the EPA.

Comment 8

Joshua Smith, on behalf of Sierra Club, commented that the proposed permit should limit bacteria discharges into a segment (No. 1252) of the Brazos River Basin because its designated uses are recreation, public water supply, and high aquatic life use.

Response 8

The proposed permit includes effluent limitations for *E.coli* to demonstrate the disinfection level in treated domestic wastewater effluent discharged into water in the state (freshwater) at Outfalls 006 and 007 because those discharges of treated domestic wastewater meet the requirements of 30 TAC § 309.3(h)(1)(A) and 30 TAC § 307.7(b)(1)(A)(i). Due to the lack of potential sources of bacteria in other discharges authorized by the permit, additional effluent limitations for *E.coli* were not placed at Outfalls 001, 002, 003, 004, 005, and 008.

Comment 9

Joshua Smith, on behalf of Sierra Club, commented that the proposed permit fails to address whether the cooling water intake structures for the facility represent the best technology available for minimizing adverse environmental impact.

Response 9

The proposed permit does address whether the cooling water intake structures (CWIS) for the facility represent the best technology available for minimizing adverse environmental impact. On May 14, 2014, the EPA submitted an interim objection letter

stating that the proposed permit did not include conditions and requirements for the facility's CWIS in accordance with CWA § 316(b) and 40 C.F.R. Part 125. Pursuant to EPA's letter, the Fact sheet was revised by adding Other Requirement No. 12 that evaluates the applicability of the conditions and requirements of CWA § 316(b) and 40 C.F.R. Part 125 to the facility's CWIS, and details how the facility's CWIS are subject to the conditions and requirements of CWA § 316(b) and 40 C.F.R. Part 125. In a letter dated October 23, 2014, the EPA accepted the changes to the proposed permit and withdrew its interim objections.

Comment 10

Joshua Smith, on behalf of Sierra Club, commented that the proposed permit is internally inconsistent, unclear, and thwarts effective public review.

Response 10

The ED respectfully disagrees with Sierra Club that the proposed permit is internally inconsistent, unclear, and thwarts effective public review. If members of the public have concern about what is included in the proposed permit, they may contact the TCEQ Water Quality Division and ask any questions or express any specific concerns to the permit writer.

Comment 11

Jennifer Duggan, on behalf of EIP, commented that the effluent limits in the proposed permit do not reflect that Applicant's ability to achieve "zero discharge" at the facility, and further that the proposed permit does not prohibit discharges from any of the outfalls at the facility.

Response 11

The Applicant's ability to achieve "zero discharge" at the facility during the two years prior to its application for a renewal of its TPDES permit was the result of voluntary actions to conserve water that reduced the likelihood of a discharge at the facility. Though the Applicant has indicated it continues to desire to operate the facility in a manner so as not to discharge to waters in the state; the Applicant requested authorization to discharge under its TPDES permit if such a need arises.

Texas Water Code (TWC) § 26.027 authorizes the TCEQ to issue permits to control the discharge of wastes or pollutants into state waters and to protect the water quality of the state's rivers, lakes and coastal waters. The application submitted by the Applicant was for a renewal of a TPDES permit, which authorizes discharges into water in the state under set of prescribed conditions. The ED does not have the authority to mandate a different type of application nor a different type of wastewater treatment plant. The ED evaluates applications for wastewater treatment plants based on the information provided in the application. Nonetheless, TPDES permit No. WQ0002430000 specifically states the wastewaters authorized for discharge under the permit. The discharge of any wastewater(s) not listed as authorized for discharge in TPDES permit

No. WQ0002430000 would result in a violation of the permit, the TWC, and the Clean Water Act (CWA), resulting in an enforcement action against the Applicant.

Comment 12

Jennifer Duggan, on behalf of EIP, commented that the application and proposed permit both fail to provide analytical data for wastewater discharged from the facility and are in violation of the federal CWA and state and federal regulations for the following reasons.

First, the CWA requires a detailed application before a discharge of pollution into surface waters occurs in order for the TCEQ to have the information required to make a reasoned decision to limit pollution and protect surface waters. Likewise, 40 Code of Federal Regulations (C.F.R.) § 122.21(g)(1)-(7) and (9)-(13) require TPDES permit applications to include a detailed description of the process or operation that contributes wastewater to facility effluent and complete quantitative data for certain pollutants, of which neither the application nor the proposed permit include. Moreover, 40 C.F.R. § 122.21(g)(7)(v) requires the that the application and proposed permit report quantitative data at each outfall for certain pollutants listed in various tables in Appendix D of 40 C.F.R. § 122.21, which neither do.

Second the application and proposed permit fail to report quantitative data at each outfall for Biochemical Oxygen Demand-5-day (BOD5), Chemical Oxygen Demand, Total Organic Carbon, Total Suspended Solids (TSS), Ammonia (as N), Summer and Winter Temperatures, and pH, as 40 C.F.R. § 122.21(g)(7)(iii) requires. Ms. Duggan notes that 40 C.F.R. § 122.21(g)(iV) does allow reporting requirements for individual point sources or for a particular industry category for one or more of the pollutants listed in 40 C.F.R. § 122.21(g)(7)(iii) to be waived if an Applicant demonstrates issuance of a permit can be obtained with less stringent requirements. Ms. Duggan, however, states that there has been no indication that a waiver has been extended.

Ms. Duggan further comments that the permit's requirement for the Applicant to sample wastewater at all the outfalls for a later determination of whether additional effluent limitations and monitoring requirements are necessary, is not in accordance with the CWA.

Response 12

The Applicant did not submit effluent data with the application because the facility did not discharge during the two years prior to applying for a renewal of its TPDES permit. All the same, the proposed permit was developed in accordance with the Texas Surface Water Quality Standards (TSWQS), which are designed to maintain the quality of water in the state and to be protective of human health and the environment. Thus, the proposed permit contains both Technology Based Effluent Limits (TBELs) and Water Quality Based Effluent Limits (WQBELs) that are continued from the previous permit, and are still considered to be protective. Appendix C of the Fact Sheet and ED's preliminary decision contains a summary of the TBELs assessed in the proposed permit, calculated/assessed WQBELs, and effluent limitations from the existing permit.

When a discharge occurs from any of the facilities' outfalls pursuant to its permit, the discharge is subject to Other Requirement No. 13 of the proposed permit. Other Requirement No. 13 requires the Applicant to complete "Attachment A" of the permit (Tables 1, 2, 3, 4, and 5) with the analytical results for Outfalls 001, 002, 003, 004, 005, 006, 007, and 008 and then send the data to the TCEQ-Wastewater Permitting Section (MC-148) within 60 days after the Applicant obtains the data. TCEQ Staff will then compare the effluent data to the calculated water quality-based effluent limitations contained in Appendix B of the Fact Sheet and Executive Director's Preliminary Decision. Based on a technical review of the submitted analytical results, TCEQ staff may initiate a permit amendment to include additional effluent limitations or monitoring requirements, or both if the data indicates that the effluent has the potential to exceed any water quality-based effluent limits.

Guidance from the United States Environmental Protection Agency's (EPA) *Permit Writer's Manual* (September 2010), page 6-23, states that when determining the need for a WQBEL, a permit writer should use any available effluent and receiving water data as well as other information pertaining to the discharge and receiving water, as the basis for a decision. The permit writer might already have data available from previous monitoring or he or she could decide to work with the permittee to generate data before permit issuance or as a condition of the permit. The EPA recommends that monitoring data be generated before effluent limitation development whenever possible and monitoring should begin far enough in advance of permit development to allow sufficient time to conduct chemical analyses. Where data is generated as a condition of the permit, it is appropriate for the permit writer to include a reopener condition in the permit to allow the incorporation of a WQBEL if the monitoring data indicates that a WQBEL is required.

Along these lines, Other Requirement No. 11 in the proposed permit is consistent with guidance in the US EPA *Permit Writer's Manual* (September 2010).

Comment 13

Jennifer Duggan, on behalf of EIP, commented that the application and proposed permit fail to comply with the CWA and state and federal regulations because the proposed permit does not set TBELs for the numerous toxic pollutants found in wastewaters such as coal ash transport water and coal combustion leachate that are routinely discharged from the facility. Ms. Duggan comments that CWA §§ 301, 302 (a), 402(a)(1); 40 C.F.R. § 122.44 (a) and (e); and 30 TAC § 305.531 require that TPDES permits must include, for all pollutants discharged, TBELs that are reflective of the pollution controls for the best available technology economically achievable (BAT), unless more stringent WQBELs are required to avoid exceedances of water quality standards.

Response 13

Effluent limitations developed from federal categorical effluent limitations guidelines (ELGs) that are generated from national standards developed by the EPA on an industry-by-industry basis, are intended to represent the greatest pollutant reductions

that are economically achievable for an industry. The categorical effluent limitations in the proposed permit were developed in accordance with 40 C.F.R. § 423 (Steam Electric Power Generating Point Source Category). Detailed information is located in Appendix A of the Fact Sheet and Executive Director's Preliminary Decision as to how the TBELs are applied in the permit under 40 C.F.R. § 423.

For discharges via Outfalls 001 – 005 and Outfall 008, the TCEQ has established all applicable TBELs, including those applicable for bottom ash transport water, based on the ELGs located in 40 C.F.R, § 423.15. The proposed permit contains WQBELs for Total Selenium at Outfalls 001 – 005 and Outfall 008. Additionally, discharges via Outfall 001 are subject to reporting requirements for total copper and discharges via Outfall 005 are subject to a WQBEL for total copper. Likewise, Operational Requirement No. 2, found on page 11 of the proposed permit subjects the discharges of all wastewaters from the facility to effluent limitations for hazardous metals to inland waters such as arsenic, barium, cadmium, chromium, , copper, lead, manganese, mercury, nickel, selenium, silver, and zinc, found in 30 TAC § 319.22.

The proposed permit also contains Whole Effluent Toxicity (WET) testing requirements. WET testing is designed to protect receiving water quality from the aggregate toxic effect of a mixture of pollutants in the effluent. WET tests measure the degree of response exhibited by aquatic test organisms when exposed to treated effluent. If WET testing indicates actual or potential ambient toxicity in the receiving water, then the permit may be reopened to require additional/revised effluent limits, additional testing, or other appropriate actions to address toxicity.

The TCEQ concludes that based on the existing TBELs and WQBELs in the permit, the limitations and requirements of WET testing in the permit, and the placement of Other Requirement No. 13 in the permit, that the proposed permit fully complies with the CWA and state and federal regulations.

Comment 14

Jennifer Duggan, on behalf of EIP, states that the EPA is finalizing ELGs for 27 pollutants it has identified in coal-fired power plants' coal ash-wastewaters. Ms. Duggan comments that currently, not only does the proposed permit not contain limits for most toxic pollutants identified in coal combustion wastewater by the EPA; the effluent limits that are identified appear to be WQBELs not TBELs. Ms. Duggan further comments that the proposed permit authorizes discharges of ash transport water from Outfalls 001-005, 008, and stormwater discharges with coal combustion wastes from Outfall 002, but only limits discharges of Free Available Chlorine, total dissolved solids, and total iron, copper, and selenium beyond the already established-outdated ELGs for Total Suspended Solids and oil and grease.

Ms. Duggan comments that the CWA, and EPA and TCEQ regulations require that the TCEQ establish, based on best professional judgment, TBELs for discharges when the 27 pollutants are present in coal ash-wastewater. Ms. Duggan continues by stating that the TCEQ can use data available from the EPA and power plants in Texas for development of BAT TBELs and apply those limitations in the proposed permit. In the alternative,

Ms. Duggan comments that if TBELs for the 27 pollutants are not developed and placed in the permit, based on NRG having already achieved "zero discharge" by treating and recycling its wastewaters, TCEQ should prohibit discharges from Outfalls 001 – 005 and Outfall 008.

Response 14

The Applicant's ability to achieve "zero discharge" at the facility was the result of voluntary actions to conserve water that reduced the likelihood of a discharge at the facility. The Applicant continues to desire to operate the facility in a manner so as not to discharge to the water in the state but has requested that it be allowed to retain its authorization to discharge under its TPDES permit if such a need arises. The ED does not have the authority to dictate what an Applicant requests in an application, nor can the TCEQ mandate a different type of application or a different type of wastewater treatment plant. The ED evaluates applications for wastewater treatment plants based on the information provided in the application.

The TCEQ currently requires analytical data for pollutants to be submitted with the application for all but four of the 27 pollutants (calcium, sodium, vanadium, and yttrium) cited by EIP. At this time, there are no specific requirements for analytical data for calcium, sodium, vanadium, and yttrium to be included in the application.

The EPA stated in its 2009 *Steam Electric Power Generating Point Source Category: Final Detailed Study Report* that "Several analytes, such as yttrium, were included in the analyte list because of pre-established laboratory contracts and perhaps would not have been individually selected for inclusion."[1] That statement highlights that until the EPA has promulgated effluent limitations and monitoring requirements for the 27 pollutants, the TCEQ has no reasonable basis to establish TBELs in the permit based on BPJ, for the 27 pollutants as indicated by EIP.

If the TCEQ determines that any pollutant(s) are present in a discharge from a facility at levels which TCEQ determines will require reporting or effluent limitations to be placed in the permit, TBELs, WQBELs, monitoring requirements, discharge requirements, or a combination of any of these will be placed in the permit as needed or as required by rules and regulations.

The TCEQ concludes, based on the permit's existing TBELs and WQBELs, its limitations and requirements for WET testing, and the addition of Other Requirement No. 13, the proposed permit will provide water quality protection until such time that a discharge occurs at an outfall covered under the permit and NRG submits the analytical data required under Other Requirement No. 13.

However, TCEQ agrees with EIP that additional information from NRG is needed to provide complete information of the pollutants being discharged by the facility. Therefore additional tables of pollutants have been added to Other Requirement item

[1] U.S. EPA, *Steam Electric Power Generating Point Source Category: Final Detailed Study Report,* EPA 821-R-09-008, 2-11 (October 2009).

No. 13 (Table 5 of Worksheet 2.0 of the application), which are required to be completed in the TPDES permit application.

Comment 15

Jennifer Duggan, on behalf of EIP, states that without protective liners, coal combustion waste landfills and impoundments routinely seep or leak dangerous toxins into ground and surface waters. These leaks in pollution containments systems for coal combustion waste landfills and impoundments, are point sources according to CWA § 502(14) and are considered discharges to ground or surface waters without a permit that are prohibited by the CWA.

Ms. Duggan comments that the facility has one landfill and several impoundments that handle coal combustion waste and that an NRG submission to the EPA states that the impoundments do not have protective composite liners, it is also unclear if even the landfill has a protective composite liner.

Hence, Ms. Duggan comments, the TCEQ must assess whether NRG is discharging pollution from its coal combustion waste landfill and impoundments without a permit, and if needed, address all discharges associated with the landfill and impoundments.

Response 15

As indicated by EIP, the Applicant provided additional information to the EPA about the liner for the material handling area (landfill). Currently, assessment and regulation of seepage of leachate from a landfill due to a leaking liner is covered under the Resource Conservation and Recovery Act (RCRA) and not under the scope of TPDES permitting program or the requirements and conditions of TPDES Permit No. WQ0002430000.

However, section X.C.1. of the Fact Sheet and Executive Director's Preliminary Decision and No. 1 of the Effluent Limitations and Monitoring Requirements page for Outfall 002 (page 2a of the permit) lists "material handling area runoff" as an authorized waste stream at Outfall 002 and it is defined in Other Requirement No. 4.c. of the permit. The material handling area at the facility includes the landfill where ash from coal combustion is stored. The leachate from the landfill is identified through the definition of "material handling area runoff" in Other Requirement No. 4.c. where rainfall runoff from or *through* any coal, ash, or other material storage pile coming from the material handling area are routed to a sedimentation pond for the removal of solids and equalization and then discharged either to Lynn Creek via Outfall 002, or routed for re-use in the Flue Gas Desulphurization (FGD) system. NRG provided information in its TPDES permit application for renewal of its permit (WQ0002430000), which indicates that clay liners are used in the impoundments at the Limestone Electric Generating Station.

CHANGES MADE TO THE PERMIT IN RESPONSE TO COMMENT

- Additional tables of pollutants have been added to Other Requirement item No. 13 (Table 5 of Worksheet 2.0 of the application), which are required to be completed in the TPDES permit application if the facility discharges.

Respectfully submitted,

Texas Commission on Environmental Quality

Richard A. Hyde, P.E., Executive Director

Robert Martinez, Environmental Law Division Director

By _____
Michael T. Parr II, *Staff Attorney*
Environmental Law Division
State Bar No. 24062936
P.O. Box 13087, MC 173
Austin, Texas 78711-3087
Telephone No. 512-239-0611
Facsimile No. 512-239-0606
REPRESENTING THE EXECUTIVE DIRECTOR OF THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

CERTIFICATE OF SERVICE

I certify that on January 7, 2014, the Executive Director's Amended Response to Public Comment for Permit No. WQ0002430000 was filed with the Texas Commission on Environmental Quality's Office of the Chief Clerk.

_____
Michael T. Parr II, *Staff Attorney*
Environmental Law Division
State Bar No. 24062936

ATTACHMENT C

The TCEQ is committed to accessibility.
To request a more accessible version of this report, please contact the TCEQ Help Desk at (512) 239-4357.

Compliance History Report

PUBLISHED Compliance History Report for CN603207218, RN100542927, Rating Year 2013 which includes Compliance History (CH) components from September 1, 2008, through August 31, 2013.

Customer, Respondent, or Owner/Operator:	CN603207218, NRG Texas Power LLC	**Classification:** HIGH	**Rating:** 0.02
Regulated Entity:	RN100542927, LIMESTONE ELECTRIC GENERATING STATION	**Classification:** HIGH	**Rating:** 0.00
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
AIR OPERATING PERMITS PERMIT 75
WASTEWATER PERMIT WQ0002430000
WASTEWATER EPA ID TX0082651
PETROLEUM STORAGE TANK REGISTRATION REGISTRATION 33319
AIR NEW SOURCE PERMITS PERMIT 8576
AIR NEW SOURCE PERMITS PERMIT 8579
AIR NEW SOURCE PERMITS REGISTRATION 34999
AIR NEW SOURCE PERMITS REGISTRATION 34901
AIR NEW SOURCE PERMITS REGISTRATION 42002
AIR NEW SOURCE PERMITS REGISTRATION 43797
AIR NEW SOURCE PERMITS REGISTRATION 46764
AIR NEW SOURCE PERMITS ACCOUNT NUMBER LI0027L
AIR NEW SOURCE PERMITS AFS NUM 4829300010
AIR NEW SOURCE PERMITS EPA PERMIT PSDTX371M4
AIR NEW SOURCE PERMITS REGISTRATION 52233
AIR NEW SOURCE PERMITS REGISTRATION 73908
AIR NEW SOURCE PERMITS REGISTRATION 74601
AIR NEW SOURCE PERMITS REGISTRATION 51712
AIR NEW SOURCE PERMITS REGISTRATION 80272
AIR NEW SOURCE PERMITS REGISTRATION 80218
AIR NEW SOURCE PERMITS REGISTRATION 97979
AIR NEW SOURCE PERMITS REGISTRATION 107803
AIR NEW SOURCE PERMITS REGISTRATION 117019
AIR NEW SOURCE PERMITS EPA PERMIT PSDTX371M5
WASTEWATER LICENSING LICENSE WQ0002430000
AIR EMISSIONS INVENTORY ACCOUNT NUMBER LI0027L
STORMWATER PERMIT TXR15XK65
STORMWATER PERMIT TXR15XK63

Compliance History Period: September 01, 2008 to August 31, 2013 **Rating Year:** 2013 **Rating Date:** 09/01/2013

Date Compliance History Report Prepared: November 04, 2014

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

Component Period Selected: May 01, 2008 to May 31, 2013

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

Name: TCEQ Staff Member **Phone:** (512) 239-1000

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?	NO
3) If **YES** for #2, who is the current owner/operator?	N/A
4) If **YES** for #2, who was/were the prior owner(s)/operator(s)?	N/A
5) If **YES**, when did the change(s) in owner or operator occur?	N/A

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	May 09, 2008	(654940)
Item 2	June 02, 2008	(653567)
Item 3	June 23, 2008	(681926)
Item 4	July 02, 2008	(684295)
Item 5	August 05, 2008	(928326)
Item 6	August 15, 2008	(688893)
Item 7	August 18, 2008	(688947)
Item 8	September 02, 2008	(928330)
Item 9	September 18, 2008	(702732)
Item 10	October 01, 2008	(928334)
Item 11	November 03, 2008	(928338)
Item 12	November 24, 2008	(708711)
Item 13	December 01, 2008	(928342)
Item 14	December 30, 2008	(721646)
Item 15	January 05, 2009	(928346)
Item 16	January 08, 2009	(722557)
Item 17	January 12, 2009	(723400)
Item 18	January 14, 2009	(723667)
Item 19	February 02, 2009	(928304)
Item 20	March 02, 2009	(928306)
Item 21	March 11, 2009	(737856)
Item 22	April 02, 2009	(928310)
Item 23	April 09, 2009	(740525)
Item 24	April 27, 2009	(742126)
Item 25	May 05, 2009	(928315)
Item 26	May 06, 2009	(739621)
Item 27	May 08, 2009	(742974)
Item 28	May 15, 2009	(744464)
Item 29	June 03, 2009	(928319)
Item 30	June 08, 2009	(746847)
Item 31	July 02, 2009	(928323)
Item 32	July 16, 2009	(759260)
Item 33	August 03, 2009	(928327)
Item 34	September 03, 2009	(928331)
Item 35	September 08, 2009	(775177)
Item 36	September 22, 2009	(775393)
Item 37	October 06, 2009	(928335)
Item 38	October 21, 2009	(777349)
Item 39	November 02, 2009	(928339)
Item 40	December 03, 2009	(928343)
Item 41	January 04, 2010	(928347)
Item 42	January 29, 2010	(789797)
Item 43	February 01, 2010	(813754)
Item 44	March 03, 2010	(834058)
Item 45	April 01, 2010	(834059)
Item 46	April 30, 2010	(800347)
Item 47	May 02, 2010	(834060)
Item 48	May 03, 2010	(799445)
Item 49	May 04, 2010	(800089)
Item 50	May 05, 2010	(800715)
Item 51	May 19, 2010	(800346)
Item 52	May 24, 2010	(801511)
Item 53	May 28, 2010	(800624)

Item 54	June 01, 2010	(847245)
Item 55	June 07, 2010	(801729)
Item 56	June 11, 2010	(801082)
Item 57	June 15, 2010	(801161)
Item 58	June 16, 2010	(803746)
Item 59	June 18, 2010	(801728)
Item 60	July 01, 2010	(861694)
Item 61	July 07, 2010	(828338)
Item 62	July 28, 2010	(842027)
Item 63	August 02, 2010	(868074)
Item 64	August 09, 2010	(842790)
Item 65	September 01, 2010	(875008)
Item 66	September 20, 2010	(842070)
Item 67	October 05, 2010	(882612)
Item 68	November 01, 2010	(889034)
Item 69	November 22, 2010	(877852)
Item 70	November 30, 2010	(873283)
Item 71	December 01, 2010	(897404)
Item 72	December 21, 2010	(873282)
Item 73	January 03, 2011	(903293)
Item 74	January 05, 2011	(878422)
Item 75	February 01, 2011	(910215)
Item 76	February 02, 2011	(891769)
Item 77	February 24, 2011	(893304)
Item 78	February 28, 2011	(900877)
Item 79	March 01, 2011	(895234)
Item 80	March 15, 2011	(901066)
Item 81	April 06, 2011	(928311)
Item 82	April 20, 2011	(912928)
Item 83	May 02, 2011	(939122)
Item 84	May 18, 2011	(921252)
Item 85	June 01, 2011	(946516)
Item 86	June 10, 2011	(922783)
Item 87	June 29, 2011	(935510)
Item 88	July 05, 2011	(953789)
Item 89	August 02, 2011	(960393)
Item 90	August 03, 2011	(944476)
Item 91	September 01, 2011	(966452)
Item 92	October 03, 2011	(972459)
Item 93	October 14, 2011	(962676)
Item 94	November 01, 2011	(978609)
Item 95	November 09, 2011	(964567)
Item 96	November 22, 2011	(969423)
Item 97	December 05, 2011	(985431)
Item 98	December 06, 2011	(920798)
Item 99	January 02, 2012	(991718)
Item 100	February 06, 2012	(999060)
Item 101	February 28, 2012	(988191)
Item 102	March 01, 2012	(1004584)
Item 103	April 02, 2012	(993744)
Item 104	April 18, 2012	(1011165)
Item 105	April 20, 2012	(996326)
Item 106	April 25, 2012	(1001560)
Item 107	April 30, 2012	(1002136)
Item 108	May 07, 2012	(1017523)
Item 109	June 06, 2012	(1025317)
Item 110	June 29, 2012	(1014990)
Item 111	July 02, 2012	(1032659)
Item 112	July 19, 2012	(1016259)
Item 113	August 06, 2012	(1039084)

Item 114	September 04, 2012	(1027111)
Item 115	October 01, 2012	(1066591)
Item 116	October 03, 2012	(1030293)
Item 117	November 01, 2012	(1066592)
Item 118	November 02, 2012	(1037541)
Item 119	November 05, 2012	(1037742)
Item 120	December 04, 2012	(1066593)
Item 121	December 10, 2012	(1042009)
Item 122	December 19, 2012	(1043289)
Item 123	January 03, 2013	(1081372)
Item 124	January 16, 2013	(1051138)
Item 125	February 04, 2013	(1081371)
Item 126	February 27, 2013	(1054702)
Item 127	March 05, 2013	(1090473)
Item 128	March 06, 2013	(1055953)
Item 129	April 01, 2013	(1096825)
Item 130	May 01, 2013	(1107791)

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:

N/A

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

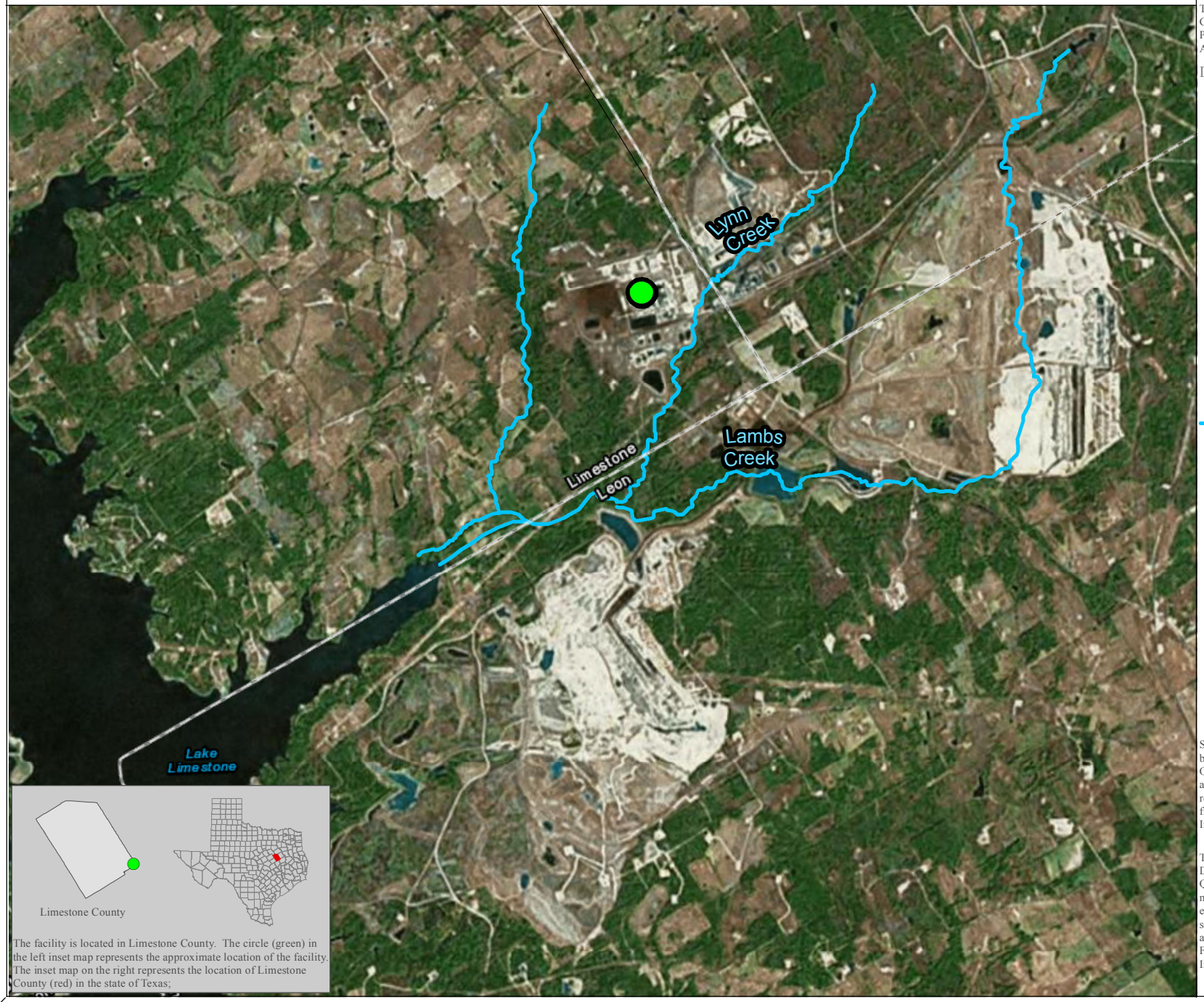
Sites Outside of Texas:

N/A

ATTACHMENT D

NRG Texas Power - WQ0002430000

Map Requested by TCEQ Office of Legal Services
for Commissioners' Agenda



The facility is located in Limestone County. The circle (green) in the left inset map represents the approximate location of the facility. The inset map on the right represents the location of Limestone County (red) in the state of Texas;

Protecting Texas by Reducing and Preventing Pollution

TCEQ

Texas Commission on Environmental Quality
GIS Team (Mail Code 197)
P.O. Box 13087
Austin, Texas 78711-3087

Date: 11/10/2014

N

0 0.5 1 Miles

Facility

Discharge Streams

Source: The location of the facility was provided by the TCEQ Office of Legal Services (OLS). OLS obtained the site location information from the applicant and the requestor information from the requestor. The background imagery of this map is from the current Environmental Systems Research Institute (ESRI) map service, as of the date of this map.

This map was generated by the Information Resources Division of the Texas Commission on Environmental Quality. This product is for informational purposes and may not have been prepared for or be suitable for legal, engineering, or surveying purposes. It does not represent an on-the-ground survey and represents only the approximate relative location of property boundaries. For more information concerning this map, contact the Information Resource Division at (512) 239-0800.

CRF 436516 MichaelParr