Construction Permit
Source Analysis & Technical Review

Company	**NRG Greens Bayou 6 LLC**	Permit Numbers	**171485, PSDTX1616, GHGPSDTX230, and N308**
City	**Houston**	Project Number	**352417**
County	**Harris**	Regulated Entity Number	**RN100542851**
Project Type	**Initial**	Customer Reference Number	**CN606094340**
Project Reviewer	**Ruth Alvirez**	Received Date	**January 10, 2023**
Site Name	**Greens Bayou Electric Generating Station**		

Project Overview

NRG Texas Power, LLC (NRG Texas) owns and operates the Greens Bayou Electric Generating Station (Greens Bayou Station). NRG Greens Bayou 6 LLC (NRG Greens) is proposing to construct a new electric power generation block at the Greens Bayou Station which will generate electric power for sale on the wholesale electric market.

Emission Summary

Air Contaminant	Current Allowable Emission Rates (tpy)	Proposed Allowable Emission Rates (tpy)	Change in Allowable Emission Rates (tpy)
NO_X	-	94.06	94.06
CO	-	85.33	85.33
VOC	-	24.52	24.52
PM	-	66.35	66.35
PM_{10}	-	66.35	66.35
$PM_{2.5}$	-	66.35	66.35
SO_2	-	9.66	9.66
H_2SO_4	-	6.35	6.35
NH_3	-	91.90	91.90
Formaldehyde	-	1.47	1.47
N_2O	-	2	2
CH_4	-	13	13
SF_6	-	<1	<1
CO_2e	-	861,843	861,843

Compliance History Evaluation - 30 TAC Chapter 60 Rules

A compliance history report was reviewed on:	**April 19, 2023**
Site rating & classification:	**Unclassified**
Company rating & classification:	**Unclassified**
Has the permit changed on the basis of the compliance history or rating?	**NA**
Did the Regional Office have any comments? If so, explain.	**No**

Public Notice Information

Requirement	**Date**
Legislator letters mailed	**January 18, 2023**
Date 1st notice published	**March 1, 2023**
Publication Name: **Houston Chronicle**	
Pollutants: **NO_x, CO, PM, PM_{10}, $PM_{2.5}$, SO_2, H_2SO_4, HAPs, and organic compounds**	
Date 1st notice Alternate Language published	**March 1, 2023**
Publication Name (Alternate Language): **La Voz**	
1st public notice tearsheet(s) received	**March 13, 2023**
1st public notice affidavit(s) received	**March 13, 2023**
1st public notice certification of sign posting/application availability received	**April 4, 2023**
SB709 Notification mailed	**January 30, 2023** **April 20, 2023**
Date 2nd notice published	
Publication Name:	
Pollutants:	
Date 2nd notice published (Alternate Language)	
Publication Name (Alternate Language):	
2nd public notice tearsheet(s) received	
2nd public notice affidavit(s) received	
2nd public notice certification of sign posting/application availability received	

Public Interest

Number of comments received	
Number of meeting requests received	
Number of hearing requests received	
Date meeting held	
Date response to comments filed with OCC	
Date of SOAH hearing	

Federal Rules Applicability

Requirement	
Subject to NSPS?	**Yes**
Subparts **A, IIII, KKKK** & **TTTT**	
Subject to NESHAP?	**No**
Subparts &	
Subject to NESHAP (MACT) for source categories?	**Yes**
Subparts **A, YYYY,** & **ZZZZ**	

Nonattainment review applicability and PSD Applicability Review:

The Greens Bayou Station Project is in Harris County which is classified as severe nonattainment. The site is an existing major source with respect to the Prevention of Significant Deterioration (PSD) and Nonattainment New Source Review (NNSR) Programs Program.

This is a project is a new source at an existing site, there are no changes in the contemporaneous period, and a baseline of zero was used for all pollutants. The new project will have the potential to emit emissions greater than the major modification significance level for the pollutants identified below. A minor NSR review was performed for all pollutants not triggering a federal review.

The following charts illustrate the annual project emissions for each pollutant and whether this pollutant triggers PSD review. These totals include MSS emissions.

PSD Major Modification Trigger

Pollutant	Project Increase (tpy)	PSD Netting Trigger (tpy)	Netting Required (Y/N)	Net Emission Change (tpy)	PSD Major Mod Trigger	PSD Review Triggered (Y/N)
CO	85.33	100	N	-	100	N
VOC	24.52	40	N	-	40	N
PM	66.35	25	Y	66.35	25	Y
PM_{10}	66.35	15	Y	66.35	15	Y
$PM_{2.5}$	66.35	10	Y	66.35	10	Y
SO_2	9.66	40	N	-	40	N
H_2SO_4	6.35	7	N	-	7	N

NA Modification Trigger

Pollutant	Project Increase (tpy)	NA Netting Trigger (tpy)	Netting Required (Y/N)	Net Emission Change (tpy)	NA Major Mod Trigger	NA Review Triggered (Y/N)
NO_x	94.06	5	Y	94.06	25	Y
VOC	24.52	5	Y	-	25	N

GHG PSD Major Modification Trigger

Pollutant	Project Increase (tpy)	GHG Netting Trigger (tpy)	Netting Required (Y/N)	Net Emission Change (tpy)	GHG Major Mod Trigger	GHG Review Triggered (Y/N)
CO_2e	861,843	75,000	Y	861,843	75,000	Y

Title V Applicability - 30 TAC Chapter 122 Rules

Requirement

Title V applicability: The applicant is aware that a Title V permit is required.

Periodic Monitoring (PM) applicability: Periodic monitoring is applicable because the site is a major source subject to 30 TAC Chapter 122. Periodic monitoring in the form of quarterly visible emissions/opacity observations; daily audio, olfactory, and visual checks for NH_3 leaks; continuous monitoring of natural gas consumption for the CTG and maintaining records of the sulfur content of fuel are used to demonstrate compliance with the permit limits.

Compliance Assurance Monitoring (CAM) applicability: CAM is applicable because the site is a major source subject to 30 TAC Chapter 122. CAM is applicable to the turbines for NO_x and CO because each turbine has the pre-control potential-to-emit above the major source thresholds and uses a control device to achieve compliance with the emission limitations of the permit. To satisfy CAM requirements, the permit requires CEMS on the CTG to monitor NO_x and CO emissions.

Process Description

The main components of the CTG unit consist of a compressor, combustor, turbine, and generator. Filtered ambient air is drawn into the compressor section of the CTG. Fuel is mixed with the compressed inlet air and combusted in the combustor section of the CTG. The hot exhaust gas enters the expansion turbine where the gases expand across the turbine, which generates torque that causes rotation of the turbine shaft. The shaft drives the compressor section of the unit and spins a dedicated electric generator, producing electricity.

The temperature of the inlet air to the CTG may occasionally be lowered using evaporative cooling and wet compression to increase the mass air flow through the turbine and achieve maximum turbine power output. Wet compression introduces atomized liquid water into the compressor inlet that vaporizes in the first few stages of the compressor. This reduces the temperature of the air and consequently the work of compression, allowing a greater percentage of turbine work to be used by the generator.

In the simple-cycle configuration, exhaust from the combustion turbine is cooled with ambient air to maintain desired temperature as it passes through a transition section containing the oxidation catalyst and the SCR catalyst prior to being released to the atmosphere.

A conventional SCR system, using a 19-percent solution of aqueous ammonia as the reagent, will be used to control NO_x emissions and an oxidation catalyst system to minimize CO, VOC, and organic HAP emissions.

Project Scope

The Greens Bayou Power Project will consist of a single peaking simple cycle turbine generator (CTG). Ancillary equipment includes an evaporative inlet cooler and wet compression system, a selective catalytic reduction (SCR), an oxidation catalyst (OC), ammonia storage, aqueous ammonia piping and handling and metering equipment, natural gas

piping, diesel component fugitives, a diesel fired emergency engine, and a diesel-fired fire foam system.

The CTG is a General Electric H-Class 7HA.03 (GE7HA) that will be fired primarily with natural gas with ultra-low sulfur diesel (ULSD) as a back-up fuel. The net electrical generation will be a nominal 435 MW.

Combustion Turbine Generator

The CTG is a General Electric H-Class 7HA.03 (GE7HA) that will be fired primarily with natural gas with ultra-low sulfur diesel (ULSD) as a back-up fuel. The net electrical generation will be a nominal 435 MW.

Selective Catalytic Reduction and Ammonia Handling Systems

In either option, the CTG will use an aqueous ammonia-based selective catalytic reduction (SCR) system to control NO_x emissions. The system will be comprised of aqueous ammonia storage and handling equipment, an ammonia vaporizer, an ammonia injection grid, and catalyst bed modules. The ammonia injection grid and the SCR catalyst beds will be installed in the transition section between the turbine and exhaust stack where exhaust temperatures will promote the NO_x reduction reactions. The aqueous ammonia will be delivered by tanker truck, which will use vapor balance to capture emissions during filling of the storage tanks. In addition, the aqueous ammonia will be stored in pressurized tanks equipped with pressure relief valves to prevent emissions. However, piping and fittings associated with the tanks and the transfer of ammonia throughout the system will be sources of fugitive emissions.

Oxidation Catalyst

A carbon monoxide oxidation catalyst will be utilized to achieve control of CO emissions, especially in CTGs using an air-cooling system which can increase the concentrations of CO and unburned hydrocarbons. The CO catalyst will also be used to reduce VOC and organic HAPs emissions.

Evaporative Inlet Air Cooler and Wet Compression System

During periods of hotter ambient temperatures, wet compression may occasionally be used in conjunction with evaporative cooling to gain additional output from the CTG. Wet compression introduces atomized liquid water into the compressor inlet that vaporizes in the first few stages of the compressor. This reduces the temperature of the air and consequently the work of compression, allowing a greater percentage of turbine work to be used by the generator.

Diesel Emergency Generator and Fire Foam Suppression System

A diesel-fired emergency generator will be installed to provide electricity to essential service users during emergencies. A second diesel-fired engine pump will be installed for a fire foam suppression system. A 1,500-gallon ULSD storage tank is included with each engine.

Natural Gas Piping Fugitives

Natural gas will be delivered to the site via pipeline and then metered and piped to the combustion turbine. The piping and fittings associated with the pipeline will be sources of fugitive emissions.

Maintenance, Startup and Shutdown (MSS)

Planned MSS emissions are being authorized in this project. This will result in separate emission rates for MSS in the table entitled “Emission Sources - Maximum Allowable Emission Rates,” (MAERT). The startup and shutdown will have separate short term (hourly) limits and the annual emissions are not expected to exceed the normal operations annual emissions and are included in the annual emissions limits in the MAERT. The durations of startups and shutdowns are included in the Special Conditions of the permit.

Maintenance Activities are identified in Attachment A and are quantified on the MAERT as Emission Point Number (EPN): MSSFUG1.

Best Available Control Technology

BACT determinations are based upon an evaluation of information from the Environmental Protection Agency's (EPA's) RACT/BACT/LAER Clearinghouse (RBLC), TCEQ Current BACT Spreadsheet (June 2019), TCEQ Gas Turbine list (February 2022), on-going permitting in Texas and other states, and the TCEQ's continuing review of emissions control developments.

Source	EPN	LAER/BACT
CGT	GBGT-61	*NO_x Emissions - LAER* DLN combustors and SCR technology will limit NO_x emissions to 2.5 ppmvd (natural gas fired) and 5.0 ppmvd (diesel) corrected to 15 % O_2 on a one-hour average. A search of the RBLC returned 50 projects for which natural gas-fired simple-cycle units were permitted between 2012 and 2021, with reported NOx emission limit. There were three listed projects in this time period that underwent LAER reviews. The RBLC shows the LAER determinations for NO_x emission limits to be 2.5 ppmvd @15% O_2 for all three projects. Two of the LAER determinations were based on a three-hour block average, excluding startup and shutdown (SUSD) periods and one of the LAER determinations was based on a three-hour rolling average. The proposed control and emission limits represent LAER. *CO Emissions - BACT* CO emissions are the result of incomplete combustion of the carbon in a fuel. Good combustion practices, DLNs, and an oxidation catalyst will limit CO to a level of 3.5. ppmvd (natural gas) and 5.0 ppmvd (diesel) on a rolling 3-hour average corrected to 15% O_2. The proposed controls and emission limits are consistent with the expectations for control of CO for natural gas-fired combined cycle turbines; therefore, BACT is satisfied.

		$PM/PM_{10}/PM_{2.5}$ Emissions - BACT $PM/PM_{10}/PM_{2.5}$ is emitted from combustion processes as a result of the presence of ash and other inorganic constituents contained in the fuel, particulate matter in the inlet air, and incomplete combustion of the organic constituents in the fuel. $PM/PM_{10}/PM_{2.5}$ emissions will primarily be limited to the incomplete combustion and are anticipated to be relatively low. A search of the RBLC and TCEQ Gas Turbine List shows that no add-on controls are required for natural gas-fired or diesel-fired combustion turbines to control $PM/PM_{10}/PM_{2.5}$. Therefore, the use of good combustion practices to minimize emission of particulate matter and limited use of diesel is BACT for $PM/PM_{10}/PM_{2.5}$. *Sulfur Compound Emissions - BACT* Emissions of SO_2 will occur as a result of oxidation of sulfur in the natural gas-fired in the combustion turbines, with the majority of the sulfur converted to SO_2. A portion of the SO_2 will be further converted to H_2SO_4, with a conversion contribution due to the action of the SCR. The formation of SO_2 and H_2SO_4 will be minimized by using pipeline-quality natural gas with a sulfur content not exceeding 1.0 grains sulfur per 100 standard cubic feet on an hourly basis and 0.5 gr/100dscf on an annual basis and ULSD with a sulfur content of 15 parts per million for hourly and annual emission. Therefore, the proposed fuel and sulfur limits represented are BACT for SO_2 and H_2SO_4 *Ammonia (NH_3) Emissions - BACT* The SCR systems will be operated in such a manner that NH_3 slip (i.e., the emission of unreacted NH_3 to the atmosphere) is minimized while ensuring that the NO_x emissions limits are met. Careful control of the NH_3 injection system and operating parameters will be maintained to control NH_3 slip in the exhaust stream to levels not exceeding 10.0 ppmvd corrected to 15% O_2. This level of emissions control meets the requirements of BACT for NH_3 slip as specified in the TCEQ's BACT Requirements table for combustion turbines.

		Startup and Shutdown Emissions – LAER/BACT Operation of the combustion turbines will result in emissions from startup and shutdown. The combustion turbines will be started up and shut down in a manner that minimizes the emissions during these events. BACT will be achieved by minimizing the duration of the startup and shutdown events (consistent with market demands), engaging the pollution control equipment as soon as practicable (based on vendor recommendations and guarantees), and meeting the emissions limitations on the MAERT. The duration of each startup and shutdown is limited to 60 minutes.
Turbine lube oil vent	GBY6-LOV	Turbine lube oil vent - The heating of recirculating lubrication oil in the gas turbine generates oil vapor and oil condensate droplets in the oil reservoir compartments. The venting of turbine lubrication oil is a minor source of VOC and PM emissions. These emissions will be controlled with oil mist eliminators, which are BACT for emissions from these vents.
Diesel-Fired Generator and Fire Foam Suppression System	EGEN FFSP1	BACT will be achieved through firing diesel fuel containing no more than 15 parts per million sulfur by weight, proper operation and maintenance, and limiting annual operation to 100 hours per year for each engine.
Diesel Storage Tanks	EGTANK FPTANK	BACT for fixed roof storage tanks with a capacity less than 25,000 gallons or containing a material with a true vapor pressure less than 0.5 psia is met by using submerged fill and uninsulated exterior surfaces exposed to the sun shall be white or aluminum.
Fugitives	NH_3FUG1 NGFUG1 ULSDFUG1	Includes VOC which originate from the natural gas fuel lines, diesel component fugitives, and NH_3 from the NH_3 delivery system of the SCR. The uncontrolled VOC emissions are less than 10 tons per year and due to the negligible amount of GHG emissions from process fugitives, the only available control, implementation of a Leak Detection and Repair Program (LDAR), is not cost effective and would result in no significant reduction in overall project GHG emissions. Periodic audio/visual/olfactory inspections will be performed for NH_3 and natural gas. Any leaks will be repaired when detected. Therefore, BACT is satisfied.

Emissions associated with result from routine maintenance activities undertaken to ensure the proper operability of equipment. Good work practices and limiting the frequency and duration of maintenance activities represents BACT.		
SF_6 Electrical Equipment		The use of circuit breakers with totally enclosed insulation systems equipped with a low-pressure alarm/lockout is BACT.

Impacts Evaluation

Was modeling conducted?	**Yes**	Type of Modeling:	**AERMOD**
Is the site within 3,000 feet of any school?			**No**

Air Quality Analysis

The air quality analysis (AQA) is acceptable for all review types and pollutants. The results are summarized below.

De Minimis Analysis

A De Minimis analysis was initially conducted to determine if a full impacts analysis would be required. The De Minimis analysis modeling results for all pollutants and averaging times indicate that the project is below the respective de minimis concentrations and no further analysis is required.

The justification for selecting the EPA's interim 1-hr NO_2 De Minimis level is based on the assumptions underlying EPA's development of the 1-hr NO2 De Minimis level. As explained in EPA guidance memoranda, the EPA believes it is reasonable as an interim approach to use a De Minimis level that represents 4% of the 1-hr NO_2 NAAQS.

The $PM_{2.5}$ De Minimis levels are the EPA recommended De Minimis levels. The use of the EPA recommended De Minimis levels is sufficient to conclude that a proposed source will not cause or contribute to a violation of a $PM_{2.5}$ NAAQS or $PM_{2.5}$ PSD increments based on the analyses documented in EPA guidance and policy memoranda.

While the De Minimis levels for both the NAAQS and increment are identical for $PM_{2.5}$ in the table below, the procedures to determine significance (that is, predicted concentrations to compare to the De Minimis levels) are different. This difference occurs because the NAAQS for $PM_{2.5}$ are statistically-based, but the corresponding increments are exceedance-based.

Modeling Results for PSD De Minimis Analysis in Micrograms Per Cubic Meter ($\mu g/m^3$)

Pollutant	Averaging Time	GLCmax ($\mu g/m^3$)	De Minimis ($\mu g/m^3$)
PM_{10}	24-hr	0.7	5

PM_{10}	Annual	0.01	1
$PM_{2.5}$ (NAAQS)	24-hr	0.5	1.2
$PM_{2.5}$ (NAAQS)	Annual	0.01	0.2
$PM_{2.5}$ (Increment)	24-hr	0.7	1.2
$PM_{2.5}$ (Increment)	Annual	0.01	0.2
NO_2	1-hr	4.2	7.5
NO_2	Annual	0.02	1

The 24-hr and annual $PM_{2.5}$ (NAAQS) and 1-hr NO_2 GLCmax are based on the highest five-year averages of the maximum predicted concentrations determined for each receptor.

The GLCmax for all other pollutants and averaging times represent the maximum predicted concentrations over five years of meteorological data.

Intermittent guidance was relied on for the 1-hr NO_2 PSD De Minimis analysis.

To evaluate secondary $PM_{2.5}$ impacts, the applicant provided an analysis based on a Tier 1 demonstration approach consistent with the EPA's Guideline on Air Quality Models. Specifically, the applicant used a Tier 1 demonstration tool developed by the EPA referred to as Modeled Emission Rates for Precursors (MERPs). The basic idea behind the MERPs is to use technically credible air quality modeling to relate precursor emissions and peak secondary pollutants impacts from a source. Using data associated with the Harris County source, the applicant estimated 24-hr and annual secondary $PM_{2.5}$ concentrations of 0.016 µg/m3 and 0.001 µg/m3, respectively. When these estimates are added to the GLCmax listed in the table above, the results are less than the De Minimis levels.

The project site is located in the Houston-Galveston-Brazoria ozone nonattainment area. Therefore, an ambient ozone impacts analysis is not required.

Air Quality Monitoring

The De Minimis analysis modeling results indicate that 24-hr PM_{10} and annual NO_2 are below their respective monitoring significance level.

Modeling Results for PSD Monitoring Significance Levels

Pollutant	Averaging Time	GLCmax (µg/m^3)	Significance (µg/m^3)
PM_{10}	24-hr	0.7	10
NO_2	8-hr	0.02	14

The GLCmax represent the maximum predicted concentrations over five years of meteorological data.

The applicant evaluated ambient $PM_{2.5}$ monitoring data to satisfy the requirements for the pre-application air quality analysis.

Background concentrations for $PM_{2.5}$ were obtained from the EPA AIRS monitor 482011034 at 1262 1/2 Mae Drive, Houston, Harris County. The three-year average (2020-2022) of the 98th percentile of the annual distribution of the 24-hr concentrations was used for the 24-hr value (22.8 µg/m3). The three-year average (2020-2022) of the annual concentrations was used for the annual value (10.2 µg/m3). The use of the monitor is reasonable based on the proximity of the monitor site to the project site (six kilometers).

National Ambient Air Quality Standards (NAAQS) Analysis

The De Minimis analysis modeling results for NO_2, PM_{10}, and $PM_{2.5}$ indicate that the project is below the respective de minimis concentrations and no further analysis is required.

Increment Analysis

The De Minimis analysis modeling results for NO_2, PM_{10}, and $PM_{2.5}$ indicate that the project is below the respective de minimis concentrations and no further analysis is required.

Additional Impacts Analysis

The applicant performed an Additional Impacts Analysis as part of the PSD AQA. The applicant conducted a growth analysis and determined that population will not significantly increase as a result of the proposed project. The applicant conducted a soils and vegetation analysis and determined that all evaluated criteria pollutant concentrations are below their respective secondary NAAQS. The applicant meets the Class II visibility analysis requirement by complying with the opacity requirements of 30 TAC Chapter 111. The Additional Impacts Analyses are reasonable and possible adverse impacts from this project are not expected.

The ADMT evaluated predicted concentrations from the proposed project to determine if emissions could adversely affect a Class I area. The nearest Class I area, Caney Creek Wilderness, is located approximately 517 kilometers (km) from the proposed site.

The H_2SO_4 24-hr maximum predicted concentration of 0.04 µg/m3 occurred approximately 1500 meters from the property line towards the southeast. The H_2SO_4 24-hr maximum predicted concentration occurring at the edge of the receptor grid, eight km from the proposed sources, in the direction of the Caney Creek Wilderness Class I area is 0.01 µg/m3. The Caney Creek Wilderness Class I area is an additional 509 km from the edge of the receptor grid. Therefore, emissions of H_2SO_4 from the proposed project are not expected to adversely affect the Caney Creek Wilderness Class I area.

The predicted concentrations of PM_{10}, $PM_{2.5}$, NO_2, and SO_2 for all averaging times, are all less than de minimis levels at the fence/property line in the direction the Caney Creek Wilderness Class I area. The Caney Creek Wilderness Class I area is 517 km from the location where the predicted concentrations of PM_{10}, $PM_{2.5}$, NO_2, and SO_2 for all averaging times are less than de minimis. Therefore, emissions from the proposed project are not expected to adversely affect the Caney Creek Wilderness Class I area.

Minor Source NSR and Air Toxics Review

Site-wide Modeling Results for State Property Line

Pollutant	Averaging Time	GLCmax (µg/m^3)	Standard (µg/m^3)
SO_2	1-hr	0.6	1021
H_2SO_4	1-hr	0.2	50
H_2SO_4	24-hr	0.01	15

Modeling Results for Minor NSR De Minimis

Pollutant	Averaging Time	GLCmax (µg/m^3)	De Minimis (µg/m^3)
SO_2	1-hr	0.2	7.8
SO_2	3-hr	0.2	25
CO	1-hr	306	2000
CO	8-hr	99	500

The GLCmax are the maximum predicted concentration associated with one year of meteorological data.

Intermittent guidance was relied on for the 1-hr SO_2 De Minimis analysis.

The justification for selecting the EPA's interim 1-hr SO_2 De Minimis levels is based on the assumptions underlying EPA's development of the 1-hr SO_2 De Minimis levels. As explained in EPA guidance memoranda , the EPA believes it is reasonable as an interim approach to use a De Minimis level that represents 4% of the 1-hr SO_2 NAAQS.

Minor NSR Production Project-Related Modeling Results for Health Effects

Pollutant	Averaging Time	GLCmax ($\mu g/m^3$)	10% ESL ($\mu g/m^3$)
Ammonia 7664-41-7	1-hr	12	18
Formaldehyde 50-00-0	1-hr	0.02	1.5

Offsets

The proposed project is a major source of NO_x an ozone NA area. The permit holder is required to offset 94.06 tons per year (tpy) of NO_x with 122.3 tpy emission credit reduction credits (ERCs). These ERCs provide offsets at the rate of 1.3:1.0 since the Houston-Galveston-Brazoria ozone NA area is classified as severe.

In addition to, or in place of, using credits the permit holder may use up to 94.0 tpy of Mass Emission Cap and Trade (MECT) allowances to offset the 94.0 tpy NO_x project emission increase for the following MECT facilities authorized by this permit at a ratio of 1.0 to 1.0.

Alternative Site Analysis and Compliance Certification

The applicant demonstrated that the benefits of the proposed locations and source configurations significantly outweigh the environmental and social costs of that location. The applicant certified that all sites owned by it are in compliance with or are on a schedule for compliance with all applicable state and federal emission limitations and standards.

Conclusion

NRG has demonstrated that this project meets all applicable rules, regulations and requirements of the Texas and Federal Clean Air Acts. The proposed facilities and controls represent BACT. The modeling analysis indicates that the proposed project will not violate the NAAQS, cause an exceedance of the increment, or have any adverse impacts on soils, vegetation, or Class I Areas. In addition, the modeling predicted no exceedance of ESLs at all receptors for non-criteria contaminants evaluated.

Project Reviewer	Date	Team Leader	Date
Ruth Alvirez		Matthew Ray	