Best Available Control Technology (BACT) Evaluation

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August 2025

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Section 1
Introduction

Pacifico GW LLC (Pacifico) is submitting this permit application to authorize the construction of a natural gas-fired simple cycle power plant at a greenfield site in Pecos County, Texas. The new power plant (the Project) will operate under the name GW Ranch Energy Center (GW Ranch). GW Ranch will provide electricity to an on-site hyperscale Artificial Intelligence (AI)-focused data center campus and will not be capable of selling electricity to, or receiving power from, the local utility power distribution system.

The Project will be a major source under the Prevention of Significant Deterioration (PSD) New Source Review (NSR) program found in the Texas State Regulations (30 TAC §116.160). As such, a consolidated permit application is being submitted for the NSR permit, non-GHG PSD permit, and GHG PSD permit. A more detailed description of the Project, as well as supporting calculations and TCEQ permit application forms, are contained in the consolidated application.

TCEQ regulations require new or modified stationary sources to determine and comply with the emission limits reflecting the use of Best Available Control Technology (BACT) for the control of air contaminants emitted from the Project as defined by the applicant. BACT must be evaluated for and applied to all facilities subject to the Texas Clean Air Act (TCAA).

The "top-down" BACT process was used to identify and evaluate all control technologies; eliminating technically infeasible options; evaluating and ranking the feasible controls that results in a selection of BACT, and determining the emission limits reflecting use of the selected BACT. This evaluation considers the following: recently issued/approved permits within the state of Texas, recently issued/approved permits in other states, and control technologies contained within the USEPA's RACT/BACT/LAER Clearinghouse (RBLC) database. This analysis aligns with TCEQ's three-tier approach to BACT, with consideration given to the technical practicability and economic reasonableness of reducing or eliminating the emissions from the facility.

BACT applies to all facilities in the Project. Non-GHG PSD pollutants evaluated include emissions of nitrogen oxides (NO_X), carbon monoxide (CO), particulate matter less than 10 microns (PM_{10}), particulate matter less than 2.5 microns ($PM_{2.5}$), sulfur dioxide (SO_2), and volatile organic compounds (VOC). Additionally, this analysis includes a BACT evaluation for sulfuric acid (H_2SO_4) and ammonia (NH_3), where applicable. For the GHG Permit, BACT was evaluated for GHGs represented as carbon dioxide equivalents (CO_2e).

Section 2
BACT Evaluation Methodology

The top-down BACT process requires that all available and applicable control technologies be ranked in descending order of control effectiveness. A permit applicant is first required to examine the most stringent or "top" alternative. The top alternative is established as BACT unless the applicant demonstrates that technical considerations, energy, environmental, or economic impacts justify a conclusion that the most stringent technology is not "achievable." If the most stringent technology is eliminated, then the next most stringent technology is considered and so on.

The top-down approach follows a 5-step format, as follows:

1. Identification of potential control technologies or techniques
2. Elimination of technologically infeasible options
3. Ranking of the remaining control technologies
4. Evaluation of the remaining control technologies
5. Selection of the control technology that constitutes BACT and then determining the emission limit reflecting the application of that technology to the project at hand

This five-step format was followed in this review; each step is discussed in further detail in the following sections. The minimum control efficiency to be considered in a BACT analysis must result in an emission rate less than or equal to any applicable New Source Performance Standard (NSPS) or National Emission Standard for Hazardous Air Pollutants (NESHAP).

In this BACT analysis, the most effective technically feasible controls were evaluated based on an analysis of their commercial availability, as well as energy, environmental and economic impacts. As part of the analysis, control options for potential emission reductions were identified by: researching the RBLC, TCEQ-published BACT, drawing from previous engineering experience, surveying available literature, and reviewing PSD permits for similar projects and processes.

The BACT evaluation for the NSR and non-GHG PSD pollutants is provided in Sections 3 through 12. The BACT evaluation for the GHG PSD Permit is provided in Section 13.

2.1 BACT Evaluation Summary

A summary of emission units and pollutants included in this analysis is shown in **Table 1-1**.

Table 1-1
Emission Units Requiring a BACT Analysis.

Emission Point Number (EPN)	Emission Unit Description	Pollutants Requiring BACT	Group
CT-1A – CT-21A	Siemens SGT-800 Combustion Turbines (1A through 21A)	NO_X, CO, PM_{10}, $PM_{2.5}$, SO_2, VOC, GHGs, H_2SO_4, and NH_3	Stationary Gas Combustion Turbines
CT-1B – CT-14B	Large-Frame Combustion Turbines (1B through 14B)	NO_X, CO, PM_{10}, $PM_{2.5}$, SO_2, VOC, GHGs, H_2SO_4, and NH_3	Stationary Gas Combustion Turbines
DPHEAT1 – DPHEAT19	Dewpoint Heaters (1 through 19)	NO_X, CO, PM_{10}, $PM_{2.5}$, SO_2, VOC, and GHGs	Dewpoint Heaters
EGEN1 – EGEN15	Emergency Engine Generators (1 through 15)	NO_X, CO, PM_{10}, $PM_{2.5}$, SO_2, VOC, and GHGs	Emergency Engines
FPUMP1 – FPUMP2	Fire Suppression System Pump Engines (1 and 2)	NO_X, CO, PM_{10}, $PM_{2.5}$, SO_2, VOC, and GHGs	Emergency Engines
ENGINE-1 – ENGINE-2	Supplemental Engine Generators (1 and 2)	NO_X, CO, PM_{10}, $PM_{2.5}$, SO_2, VOC, and GHGs	Supplemental Engine Generators
NGFUG	Natural Gas System Piping Fugitives	VOC and GHGs	Natural Gas Piping Fugitives
NH3FUG	SCR Delivery System Ammonia Fugitives	NH_3	Ammonia System Fugitives
CO-1 through CO-19	Wet Surface Air Cooler (WSAC) 1 through 19	PM_{10}, $PM_{2.5}$	Wet Surface Air Cooler
OILVENT1 – OILVENT35	Lube Oil Recirculation Vents (1 through 35)	PM_{10}, $PM_{2.5}$, and VOC	Lube Oil Recirculation Vents
TNK-DSL1 - TNK-DSL7	Ultra-low-sulfur diesel (ULSD) Tanks 1 through 7	VOC	Storage Tanks
MSSFUG	Inherently Low Emitting (ILE) Maintenance Activities	NO_X, CO, PM_{10}, $PM_{2.5}$, VOC, NH_3, H_2S, and GHGs	Maintenance Activities
CRTBRK	Circuit Breaker Insulated Electrical Equipment	GHGs	Circuit Breakers

Section 3
Combustion Turbines

In this section, BACT is addressed for NO_X, CO, PM_{10}, $PM_{2.5}$, SO_2, VOC, H_2SO_4, and NH_3 emissions from gas-fired combustion turbines. The Project will utilize simple cycle combustion turbines to meet the unique power requirements of a multi-gigawatt microgrid purpose built to serve hyperscale AI data centers. AI data centers require 24/7 reliability, high power quality, and responsiveness to dynamic loads. Simple cycle combustion turbines are uniquely well suited to meet these requirements. An environmental benefit of simple cycle combustion turbines is the relatively minimal amount of cooling water required, which will minimize the use of scarce water resources in the Project's geographic location.

A general search of the RBLC database was conducted for natural gas-fired combustion turbines of varying sizes and applications entered into the database in the last 10 years. The results of the RBLC search are included in the permit application Appendix D. The following sections outline the BACT analysis for each applicable pollutant. It is important to note, however, that the control technologies considered in the "top-down" analysis for combustion turbines were not limited to those found in the RBLC database.

3.1 NO_X BACT Analysis for Stationary Gas Combustion Turbines

NOx Formation

NO_X is formed during combustion by the following three mechanisms:

- **Thermal NOx:** Thermal NO_X results from the dissociation of nitrogen (N_2) and oxygen (O_2) molecules in the combustion air at high temperatures. The nitrogen and oxygen atoms recombine to form nitric oxide (NO) and nitrogen dioxide (NO_2). As the combustion temperature increases, thermal NO_X formation increases exponentially. Thermal NOx represents the predominant mechanism for NOx formation during operation of a natural gas-fired gas turbine.
- **Prompt NOx:** Prompt NO_X is formed within the flame by reactions of N_2 molecules in the combustion air and hydrocarbon **radicals** from the fuel. The amount of prompt NO_X formation in a turbine is negligible compared to the amount of thermal NO_X formed.
- **Fuel NOx:** Fuel NO_X results from the reaction of nitrogen-bound compounds in the fuel with O_2 in the combustion air. Fuel NO_X formation is largely independent of combustion temperature. The combustion turbines will combust gas that contains little or no nitrogen-bound compounds.

Identification of Potential Control Technologies

Based on review of RBLC search results and available literature, the following technologies are identified as potentially applicable for controlling NOx emissions from natural gas combustion turbines:

- Selective Non-Catalytic Reduction (SNCR);
- Selective Catalytic Reduction (SCR);
- Dry Low NOx Combustors (DLN);
- Water/Steam Injection;
- EMx (also known as SCONOx)
- Flue Gas Recirculation; and
- Good Combustion Practices.

These methods are discussed in greater detail below.

Selective Non-Catalytic Reduction (SNCR)

SNCR involves chemical reduction of NOx with a reduction agent at elevated temperatures. A nitrogen-based agent, such as ammonia or urea, is injected into the post combustion flue gas stream. The SNCR process chemically reduces NOx to molecular nitrogen and water vapor. SNCR has been shown to achieve NOx reductions in the range of 30 to 50 percent. Because it doesn't include catalysts and a reactor bed, SNCR is better suited for applications with higher levels of particulate in the exhaust gas stream. In general, the ammonia or urea must be injected at a location in the exhaust duct or combustion source where the gas temperature is between 1,550°F and 1,950°F. The temperature must remain in this range for at least one second. Higher NOx reduction efficiencies are attained when the gas temperature is between 1,600°F and 1,800°F and the residence time exceeds one second.

Selective Catalytic Reduction (SCR)

SCR involves chemical reduction of NOx with a reduction agent and a catalyst. The SCR process chemically reduces NOx into molecular nitrogen and water vapor by passing the hot exhaust gases across a catalyst bed. A nitrogen-based agent, such as ammonia or urea, is injected into ductwork downstream of the combustion source. The reagent and combustion exhaust enter a reactor bed containing the catalyst where the reagent reacts selectively with the NOx within a specific temperature range in the presence of the catalyst and oxygen. Typical temperature ranges from 480°F to 850°F where reduction of up to 90 percent can be achieved. The technology is best suited for clean burning fuels as high levels of sulfur and particulate matter can foul or poison the SCR catalyst rendering it ineffective.

Dry Low NOx Combustors (DLN)

Dry Low NOx (DLN) combustors are an inherent design feature to lower NOx emissions. In this combustion control technology, design consideration is given to the arrangement and mixing of combustion air and fuel. The technology uses a reduction in peak combustion temperature, internal recirculation and/or mixing to minimize thermal NOx formation. This technology is primarily used and is most applicable to gaseous fuel; e.g., natural gas, combustion sources.

Water/Steam Injection

Combustion tempering is an external combustion control method that utilizes the injection of water or steam into the combustion zone to reduce the firing temperature. Water or steam injection changes the stoichiometry of the fuel mixture and tempers the flame generated by combustion. Adding water or steam to the combustion zone can suppress NOx formation by up to 25%. There are several significant disadvantages with combustion tempering, including increases in carbon monoxide (CO) and un-burned hydrocarbon emitted as VOC. Additionally, fuel consumption will increase to account for the latent and sensible heat of the water/steam; however, because gas turbine output is based on mass throughput, the potential fuel consumption increase can be offset by turbine electrical output and a decrease in the heat rate.

EMx

The EMx, also known as SCONOx, is a post combustion catalytic NOx reduction technology that utilizes a precious metal catalyst and a NOx absorption/regeneration process for removal of NOx, CO, and VOCs. The operating temperature range of the catalyst is 300°F to 700°F. While EMx can achieve a high level of NOx control, it causes a significant pressure drop in the exhaust system, approximately twice that of other add-on NOx control devices, which decreases power output and overall efficiency, increases fuel consumption, and causes operational and maintenance issues. EMx has only been proven on small gas combustion turbines (less than 50 MW), and in those applications it has suffered from high operating cost and poor reliability. EMx has not proven effective on larger gas combustion turbines.

Flue Gas Recirculation

Flue gas recirculation (FGR) involves recirculating low oxygen flue gas and mixing it with combustion air entering the burner system. FGR reduces NOx formation by increasing the amount of inert gas through the burner. This recirculation reduces oxygen concentration and flame temperature, both of which help lower NOx formation. FGR is typically used for external combustion sources (i.e., boilers) and not for internal combustion machines like a gas turbine.

Good Combustion Practices

Good Combustion Practices include good equipment design, use of natural gas for consistent mixing, and proper combustion techniques such as optimizing the air to fuel ratio.

Elimination of Control Technologies

Selective Non-Catalytic Reduction (SNCR)

SNCR systems operate without a catalyst and therefore require higher flue gas temperatures to initiate a reaction with NOx, which is not feasible for the combustion turbine generators (CTG) in this Project. Specifically, the exhaust temperature associated with the combustion turbines is approximately 850°F, which is below the effective operating range of 1,550°F to 1,950°F. As a result, SNCR is not feasible for this Project.

EMx

This technology has been implemented in small gas-fired combustion turbines ranging from 5 to 43 megawatts (MW) in size. However, EMx has not been proven effective for larger gas combustion turbines like those to be used in the Project. Specifically, the largest combustion turbine project that employed this technology was the 43 MW Alstom GTX-100 at the Redding Electric Utility, installed in 2004 and later replaced with an SCR system. The Siemens SGT-800 turbines are rated at 62.5 MW and the large-frame CGTs nominal capacity ranges from 386 MW to 453 MW, exceed the size range for which EMx technology has proven effective. Additionally, the EMx system has a maximum catalyst inlet temperature of 700°F. The exhaust temperature associated with the CTGs in this Project is approximately 850°F, which is in excess of 700°F. Therefore, this technology is considered infeasible.

Rank Control Technologies

The remaining feasible NOx control technologies for stationary gas combustion turbines are ranked in **Table 1-2**.

Table 1-2
Ranks of Feasible Control Technologies for Stationary Gas Turbines

Rank	Control Technology	Control Effectiveness
1	Selective Catalytic Reduction (SCR)	2.5 ppmvd at 15% O_2
2	Dry Low NOx Combustors (DLN)	9-25 ppmvd at 15% O_2
3	Water/Steam Injection	25 ppmvd at 15% O_2
4	Flue Gas Recirculation	NA
5	Good Combustion Practices	NA

Evaluation of Remaining Control Technologies

Out of all the feasible NO_X control technologies, SCR has the highest NO_X reduction followed by DLN, Water/Steam Injection, FGR, and good combustion practices.

3.1.1 Selection of BACT

For the combustion turbines, the proposed BACT for NO_X is 2.5 parts per million by volume, dry basis (ppmvd) at 15% O_2, on a 3-hour average basis. This is a factor of two below the 5 ppm level identified as presumptive BACT for simple cycle turbines in the TCEQ default BACT spreadsheet included with its Form PI-1. This high level of control will be achieved using an aqueous ammonia-based SCR system in conjunction with DLN combustors, the top ranked and most effective control technologies, and the use of good combustion practices. Based on the search of the RBLC, this proposed limit is equivalent to the lowest BACT emission rate permitted for recent simple cycle projects both inside and outside Texas; therefore, the proposed emission rate satisfies BACT. Compliance with this emissions limit will be demonstrated on a three-hour averaging period basis during steady state operations and excludes periods of maintenance, startup, and shutdown (MSS). This proposed limit is more stringent than the applicable 40 CFR Part 60, NSPS Subpart KKKK for combustion turbines, which has a NOx limit of 15 ppm at 15% O_2. Pacifico will demonstrate that BACT for NOx has been achieved through the initial stack testing and through continuous monitoring of NOx emissions from the CTG stacks.

3.2 CO BACT Analysis for Stationary Gas Turbines

CO Formation

CO is formed due to the incomplete combustion of natural gas fuel in the combustion chamber. CO is produced when there is insufficient residence time and/or mixing at high temperature to complete the final step in hydrocarbon oxidation, the oxidation of CO to CO_2.

Identification of Potential Control Technologies

Based on review of RBLC search results and available literature, the following technologies are identified as potentially applicable for controlling CO emissions from natural gas combustion turbines:

- Oxidation Catalyst; and
- Good Combustion Practices.

These methods are discussed in greater detail below.

Oxidation Catalyst

Oxidation catalyst is a post-combustion technology used to promote more complete oxidation of CO in the turbine exhaust. The addition of a catalyst to the gas turbine exhaust lowers the oxidation reaction energy required to convert CO in the presence of stack gas oxygen to CO_2 and H_2O.

Good Combustion Practices

Good Combustion Practices include good equipment design, use of natural gas for good mixing, and proper combustion techniques such as optimizing the air to fuel ratio. While these control options are typically less efficient than other technologies, they have minimal environmental and energy impacts.

Elimination of Control Technologies

Based on review of RBLC search, both oxidation catalyst and good combustion practices are feasible for CO control from the stationary gas combustion turbines. Therefore, there are no control technologies that can be eliminated for technical reasons.

Rank Control Technologies

No ranking of control technologies is necessary as all technically feasible options are proposed as BACT.

Evaluation of Remaining Control Technologies

All technically feasible control technologies are being proposed as BACT for control of CO emissions from combustion turbines. Therefore, no evaluation of control technologies is required.

3.2.1 Selection of BACT

For the large-frame CTGs, the proposed BACT for CO is 9.0 ppmvd at 15% O_2, on a 3-hour average basis. This is consistent with the TCEQ's current Tier I BACT guidance for CO emissions from gas-fired simple cycle turbines, which specifies a limit of 9 to 25 ppmvd at 15% O_2 for turbines using good combustion practices and/or an oxidation catalyst, and 9.0 ppmvd at 15% O_2 is on the low, more stringent end of the Tier I control level range. This will be achieved using an oxidation catalyst; the top ranked and most effective control technology, and good combustion practices.

For the Siemens Energy SGT-800s, the proposed BACT for CO is 5.0 ppmvd at 15% O_2, on a 3-hour average. This level of CO control can be achieved for the Siemens Energy SGT-800s

without an oxidation catalyst and will be achieved using operating procedures directed at the most efficient levels of operation, i.e., good combustion practices such as controlled fuel/air mixing and sufficient temperature and residence time. Compliance with these emissions limits will be demonstrated on a three-hour average period basis during steady state operations and excludes periods of MSS. Pacifico will demonstrate that BACT for CO has been achieved through the initial stack testing and through continuous monitoring of CO emissions from the CTG stacks.

3.3 $PM_{10}/PM_{2.5}$ BACT Analysis for Stationary Gas Turbines

$PM_{10}/PM_{2.5}$ Formation

Combustion of natural gas in gas turbine generators results in both filterable and condensable particulate matter emissions. Filterable particulate matter is from trace amounts of inert material in the natural gas and any ambient particulates that enter with the turbine air inlet. Condensable particulate emissions are primarily due to the formation of sulfates, nitrates, and possibly organic compounds. The main sources of measured PM emissions are as follows:

- Formation of sulfur trioxide (SO3) from trace sulfur in the fuel;
- Formation of condensable particulate matter from the incomplete combustion of the hydrocarbon constituents of fuel gas;
- Formation of ammonium sulfate or ammonium bisulfate from NH3 in the SCR system and trace sulfur in the fuel; and
- PM in the ambient air that gets past the inlet filtration systems.

Identification of Potential Control Technologies

Based on review of RBLC search results and available literature, the following technologies are identified as potentially applicable for controlling $PM_{10}/PM_{2.5}$ emissions from natural gas combustion turbines:

- Good Combustion Practices;
- Low Sulfur Fuel; and
- Post-Combustion Controls.

These methods are discussed in greater detail below:

Good Combustion Practices

Good Combustion Practices include good equipment design, use of natural gas for good mixing, and proper combustion techniques such as optimizing the air to fuel ratio. Proper maintenance of inlet air filters will minimize the amount of particulate entering the combustion process.

Low Sulfur Fuel

Natural gas fuel has one of the lowest sulfur contents. Low sulfur contents result in lower $PM_{10}/PM_{2.5}$ emissions. Hence the use of low sulfur fuel as pipeline quality natural gas is considered as a control technology.

Post-Combustion Controls

Post-combustion controls such as cyclones, baghouses, and electrostatic precipitators (ESP) can be used to control $PM_{10}/PM_{2.5}$ emissions.

Elimination of Control Technologies

Post-Combustion Controls

Post-combustion controls are eliminated from consideration. The federal New Source Performance Standard found in 40 CFR Part 60, Subpart KKKK, Standards of Performance for Stationary Combustion Turbine regulates emissions from new combustion turbines. In the preamble to that rule promulgated in 2005, USEPA declined to establish emission limits on particulate matter because particulate matter emissions are negligible with natural gas firing due to the low sulfur content of natural gas.

Rank Control Technologies

No ranking of control technologies is necessary as all technically feasible options are proposed as BACT.

Evaluation of Remaining Control Technologies

All technically feasible control technologies are being proposed as BACT for control of $PM_{10}/PM_{2.5}$ emissions from combustion turbines. Therefore, no evaluation of control technologies is required.

3.3.1 Selection of BACT

Pacifico proposes good combustion practices and the use of pipeline quality natural gas as $PM_{10}/PM_{2.5}$ BACT for the gas-fired combustion turbines. The most stringent $PM_{10}/PM_{2.5}$ control method demonstrated for gas turbines is the use of clean burning natural gas. No add-on control technologies are listed in the TCEQ BACT guidelines or EPA RBLC database for natural gas-fired combustion turbines. Therefore, the proposed use of pipeline-quality natural gas, the application of good combustion practices, and compliance with the permit Maximum Allowable Emission Rates (MAER) of 3.25 lb/hr and 11.10 lb/hr for the Siemens SGT-800s and large-frame CTGs, respectively, satisfies BACT for the Project. Pacifico will demonstrate that BACT has been achieved through the initial stack testing for PM_{10} and proper operation of the CTGs.

3.4 SO_2 BACT Analysis for Stationary Gas Turbines

SO_2 Formation

SO_2 is the product of oxidation of sulfur compounds in the fuel.

Identification of Potential Control Technologies

Based on review of RBLC search results and available literature, the following technologies are identified as potentially applicable for controlling SO_2 emissions from natural gas combustion turbines:

- Low Sulfur Fuel;
- Wet Scrubber; and
- Good Combustion Practices.

These methods are discussed in greater detail below:

Low Sulfur Fuel

Natural gas fuel has one of the lowest sulfur contents amongst fuels. Since SO_2 is produced by the oxidation of sulfur compounds in the fuel, burning low sulfur pipeline quality natural gas is the most effective control technology for controlling SO_2 emissions.

Wet Scrubber

Removal of SO_2 by inertial or diffusional impaction, reaction with a sorbent or reagent slurry, or absorption into liquid solvent.

Good Combustion Practices

Good combustion practices include maintaining and operating combustion turbines in accordance with manufacturers' specifications. This will enable the most efficient turbine operation and minimize SO_2 emissions.

Elimination of Control Technologies

Wet Scrubber

The exhaust concentration of SO_2 from combustion of natural gas in a gas turbine is less than one (1) ppm, and it is impractical to get meaningful control of SO_2 in dilute gas streams. In addition, the optimal temperature range for the design of a SO_2 wet scrubbing system is between 40°F and 100°F, which is outside the temperature range of the inlet stream from the combustion turbines to a wet scrubbing system. Therefore, this technology is considered technically infeasible.

Rank Control Technologies

No ranking of control technologies is necessary as all technically feasible options are proposed as BACT.

Evaluation of Remaining Control Technologies

All technically feasible control technologies are being proposed as BACT for control of SO_2 emissions from combustion turbines. Therefore, no evaluation of control technologies is required.

3.4.1 Selection of BACT

Pacifico proposes good combustion practices and the use of pipeline quality natural gas fuel as SO_2 BACT for stationary gas combustion turbines. Consistent with recent turbine permits for which the TCEQ and EPA have determined that firing pipeline quality natural gas is BACT for sulfur compounds, the Project will minimize the formation and emission of SO_2 and other sulfur oxide compounds by using pipeline-quality natural gas. The sulfur content of this natural gas will not exceed 0.5 grains per 100 standard cubic feet (gr/100 scf). This is significantly below the limit of 20 gr/100 scf specified in 40 CFR Part 60 Subpart KKKK 60.4365(a) where monitoring of fuel sulfur is required. Therefore, the proposed use of pipeline-quality natural gas, the application of good combustion practices, and compliance with the permit MAER of 0.74 lb/hr and 5.35 lb/hr for the Siemens SGT-800s and large-frame CTGs, respectively, satisfies BACT for the Project.

Pacifico's proposed use of low sulfur fuel reflects the BACT determination identified previously for combustion turbines and satisfies TCEQ's Tier I BACT requirements. Pacifico will demonstrate that BACT has been achieved for sulfur compounds through the maintenance of records of contractual limits on sulfur content, such as valid purchase contracts, tariff sheets, or transportation contracts showing the sulfur content of the fuel, or through annual fuel sampling of the natural gas, in accordance with 40 CFR Part 60 Subpart KKKK.

3.5 VOC BACT Analysis for Stationary Gas Turbines

VOC Formation

VOCs are formed due to the incomplete combustion of the fuel in the combustion chamber and depend in varying degrees on the extent of fuel mixing, resulting air-to-fuel ratios, combustion temperature, and residence time. The majority of VOCs in the exhaust are due to unburned fuel, although some VOCs are formed as combustion products.

Identification of Potential Control Technologies

Based on review of RBLC search results and available literature, the following technologies are identified as potentially applicable for controlling VOC emissions from natural gas-fired combustion turbines:

- Oxidation Catalyst; and
- Good Combustion Practices.

These methods are discussed in greater detail below.

Oxidation Catalyst

Oxidation catalyst is a post-combustion technology wherein the products of combustion are introduced to a catalytic bed. The catalyst promotes the oxidation of VOC as well as CO, reducing emissions of both.

Good Combustion Practices

Good Combustion Practices include good equipment design, use of natural gas for good mixing, and proper combustion techniques such as optimizing the air to fuel ratio. While these control options are typically less efficient than other technologies, they have minimal environmental and energy impacts.

Elimination of Control Technologies

Based on review of RBLC search, both oxidation catalyst and good combustion practices are feasible for VOC control from the stationary gas combustion turbines. Therefore, there are no control technologies that can be eliminated.

Rank Control Technologies

No ranking of control technologies is necessary as all technically feasible options are proposed as BACT.

Evaluation of Remaining Control Technologies

All technically feasible control technologies are being proposed as BACT for control of VOC emissions from combustion turbines. Therefore, no evaluation of control technologies is required.

3.5.1 Selection of BACT

For the combustion turbines, the proposed BACT for VOC is 2.0 ppmvd at 15% O_2, on a 3-hour average basis. This will be achieved using an oxidation catalyst; the top ranked and most effective control technology, and the use of good combustion practices. A search of the RBLC showed VOC emission limits for natural gas-fired simple cycle CTGs ranging from 1.4 ppmvd at 15% O_2 to 2.5 ppmvd at 15% O_2, with the majority of limits set at 2.0 ppmvd. Good combustion practices and an oxidation catalyst were the controls identified. In addition, TCEQ's current Tier I BACT guidance for VOC emissions from gas-fired simple cycle turbines specifies a limit of 2 ppmvd at 15% O_2.

Compliance with this emissions limit will be demonstrated on a three-hour averaging period basis during steady state operations and excludes periods of MSS. Pacifico will demonstrate that BACT for VOC is achieved through the initial stack testing, with use of an oxidation catalyst, and with the proper operation of the combustion turbine.

3.6 H_2SO_4 BACT Analysis for Stationary Gas Turbines

H_2SO_4 emissions from the combustion turbines occur as a result of oxidation of SO_2 to SO_3 as high temperature exhaust gas passes across the surfaces of the SCR and oxidation catalyst. The SO_3 then hydrates to form H_2SO_4 in the presence of water vapor. Use of clean fuels with low sulfur content and good combustion practices are identified as potentially applicable for controlling H_2SO_4 emissions from stationary gas combustion turbines. Both these control technologies are feasible for the stationary gas combustion turbines.

Pacifico proposes good combustion practices and the use of pipeline quality natural gas fuel as BACT for H_2SO_4 from the stationary gas combustion turbines. Consistent with recent CTG permits, for which the TCEQ and EPA have determined that firing pipeline quality natural gas is BACT for sulfur compounds, the Project will minimize the formation and emission of SO_2 and other sulfur oxide compounds by using pipeline-quality natural gas. The sulfur content of this natural gas will not exceed 0.5 gr/100 scf. Therefore, the proposed use of pipeline-quality natural gas, the application of good combustion practices, and compliance with the permit MAER of 0.11 lb/hr and 0.82 lb/hr for the Siemens SGT-800s and large-frame CTGs, respectively, satisfies BACT for the Project. The use of low sulfur fuel demonstrates BACT as the MAER limits were calculated based on a 10% molar conversion of SO_2 to SO_3^- and subsequent complete conversion of SO_3^- to H_2SO_4 in the SCR.

3.7 NH_3 BACT Analysis for Stationary Gas Turbines

Pacifico will operate the SCR systems to minimize ammonia slip (i.e., the emission of unreacted ammonia to the atmosphere) while ensuring that the NO_X emissions limits are met. The ammonia injection systems and associated operating parameters will be carefully controlled to limit ammonia slip in the exhaust streams of the gas combustion turbines to no more than 10.0 ppmvd at 15% O_2 on a rolling 3-hour average and 5.0 ppmvd at 15% O_2 on an annual average basis. This level of emissions control meets Tier I BACT (7.0 to 10.0 ppmvd at 15% O_2) as outlined in the TCEQ *Combustion Sources – Current Tier I BACT Requirements* spreadsheet for gas-fired, simple-cycle combustion turbines.

Section 4
Dewpoint Heaters

In this section, BACT is addressed for NO_X, CO, PM_{10}, $PM_{2.5}$, SO_2, and VOC emissions from dewpoint heaters. A general review of the RBLC database has been performed for the last 10 years for heaters of varying sizes and applications. The results of the RBLC search are included in Appendix D. The following sections outline the BACT analysis for each applicable pollutant. It is important to note, however, that the control technologies considered in the "top-down" analysis for heaters were not limited to those found in the RBLC database.

4.1 NO_X BACT Analysis for Heaters

NO_X Formation

NO_X emissions from the dewpoint heaters can be formed via three mechanisms (Thermal NO_X, Fuel NO_X, and Prompt NO_X) previously discussed in Section 3.

Identification of Potential Control Technologies

Based on review of RBLC search results and available literature, the following technologies are identified as potentially applicable for controlling NO_X emissions from heaters:

- Selective Non-Catalytic Reduction (SNCR);
- Selective Catalytic Reduction (SCR);
- Low NOx Burners (LNB);
- Ultra Low NOx Burners (ULNB);
- Flue Gas Recirculation and
- Good Combustion Practices.

These methods are discussed in greater detail below:

Selective Non-Catalytic Reduction (SNCR)

SNCR technology is discussed in Section 3.

Selective Catalytic Reduction (SCR)

SCR technology is discussed in Section 3.

Low NOx Burners (LNB)

The fuel and air mixture at the burners is controlled to expand the flame's surface area, which reduces the peak flame temperature and lowers NOx emissions. This approach enhances the overall combustion process and further decreases NOx emissions. Additionally, it improves heat transfer efficiency and flame stability.

Ultra Low NOx Burners (ULNB)

ULNB achieved NOx emission reductions through internal flue gas recirculation and fuel staging. By recirculating flue gas within the burner, peak flame temperatures and average oxygen concentrations are reduced which limits thermal NOx formation. The effectiveness of this process depends on the specific burner type and combustion system design.

Flue Gas Recirculation

Flue gas recirculation technology is discussed in Section 3.

Good Combustion Practices

Good Combustion Practices include good equipment design, use of natural gas for good mixing, and proper combustion techniques such as optimizing the air to fuel ratio. While these control options are typically less efficient than other technologies, they have minimal environmental and energy impacts

Elimination of Control Technologies

Selective Non-Catalytic Reduction (SNCR)

SNCR systems operate without a catalyst and therefore require higher flue gas temperatures to initiate a reaction with NOx. The exhaust temperature associated with heaters is approximately 760°F, which is below the effective operating range of 1,550°F to 1,950°F. As a result, SNCR is not feasible for this Project.

Rank Control Technologies

The remaining feasible NO_x control technologies for heaters are ranked in **Table 1-3**.

Table 1-3
Ranks of Feasible Control Technologies for Heaters

Rank	Control Technology	Control Effectiveness
1	Selective Catalytic Reduction (SCR)	0.01 lb/MMBtu
1	Ultra Low NOx Burners (ULNB)	0.01 lb/MMBtu
2	Low NOx Burners (LNB)	0.04 lb/MMBtu
3	Flue Gas Recirculation (FGR)	NA
4	Good Combustion Practices	NA

Evaluation of Remaining Control Technologies

The SCR and ULNB technology will reduce NO_x emissions to 0.01 lb/MMBtu. ULNB control technology is considered more cost effective compared to SCR technology. LNB technology and FGR are a less stringent control option than ULNB technology. Therefore, these control technologies are not considered further.

4.1.1 Selection of BACT

Based on the equipment vendor emissions guarantee, the proposed BACT for NO_x is 0.011 lb/MMBtu on a 3-hour rolling average, which is equivalent to 9.0 ppmvd. This will be achieved using ULNB, the top ranked and most effective control technology, and the use of good combustion practices. A review of the RBLC for natural gas-fired heaters showed NOx BACT determinations ranging from 0.01 lb/MMBtu to 0.1 lb/MMBtu, and the proposed emissions for the dewpoint heaters fall within the recent RBLC BACT determinations for natural gas-fired heaters.

4.2 CO BACT Analysis for Heaters

CO Formation

CO formation for heaters is similar to combustion turbines and is described in Section 3.

Identification of Potential Control Technologies

Based on review of RBLC search results and available literature, the following technologies are identified as potentially applicable for controlling CO emissions from heaters:

- Oxidation Catalyst; and
- Good Combustion Practices.

These methods are discussed in greater detail below:

Oxidation Catalyst

Oxidation catalyst is a post-combustion technology that is used to oxidize CO in heaters. The addition of a catalyst to the oxidation process accelerates the rate of oxidation by absorbing oxygen from the air stream and CO in the waste stream onto the catalyst surface to react to form CO_2 and H_2O.

Good Combustion Practices

Good Combustion Practices include good equipment design, use of natural gas for good mixing, and proper combustion techniques such as optimizing the air to fuel ratio. While these control options are typically less efficient than other technologies, they have minimal environmental and energy impacts.

Elimination of Control Technologies

Based on review of RBLC search, both oxidation catalyst and good combustion practices are feasible for CO control from the heaters. Therefore, no control technologies are eliminated.

Rank Control Technologies

Although an oxidation catalyst is a feasible emissions control technology for heaters, the Project heaters are small in size (five heaters at 8.8 MMBtu/hr each and fourteen heaters at 11.1 MMBtu/hr each), and a review of the RBLC database indicates good combustion practices and use of pipeline quality natural gas fuel are BACT for heaters in this size range. Therefore, good combustion practices are proposed as BACT for the Project heaters.

Evaluation of Remaining Control Technologies

Good combustion practices are proposed as BACT for control of CO emissions from heaters. Therefore, no evaluation of control technologies is required.

4.2.1 Selection of BACT

Based on the equipment vendor emissions guarantee, the proposed BACT for CO is 50.0 ppmvd at 3% O_2 (0.037 lb/MMBtu), on a 3-hour average. This will be achieved with the use of good combustion practices and natural gas fuel. A review of the RBLC for natural gas-fired heaters sized less than 40 MMBtu/hr showed BACT determinations for CO ranging from 0.037 lb/MMBtu to 0.087 lb/MMBtu, and the proposed emissions for the dewpoint heaters fall within the recent RBLC BACT determinations for natural gas-fired heaters.

4.3 $PM_{10}/PM_{2.5}$ BACT Analysis for Heaters

$PM_{10}/PM_{2.5}$ Formation

$PM_{2.5}/PM_{10}$ formation from natural gas combustion is described in Section 3.

Identification of Potential Control Technologies

Based on review of RBLC search results and available literature, the following technologies are identified as potentially applicable for controlling $PM_{10}/PM_{2.5}$ emissions from heaters:

- Good Combustion Practices;
- Low Sulfur Fuel; and
- Post-Combustion Controls.

These methods are discussed in greater detail below:

Good Combustion Practices

Good Combustion Practices include good equipment design, use of natural gas for good mixing, and proper combustion techniques such as optimizing the air to fuel ratio. Proper maintenance of inlet air filters will minimize the amount of particulate entering the combustion process.

Low Sulfur Fuel

Natural gas fuel has one of the lowest sulfur contents amongst fuels. Low sulfur content results in lower $PM_{10}/PM_{2.5}$ emissions. Hence the use of low sulfur fuel as pipeline quality natural gas is considered as a control technology.

Post-Combustion Controls

Post-combustion controls such as cyclones, baghouses, and ESP can be used to control $PM_{10}/PM_{2.5}$ emissions.

Elimination of Control Technologies

Post-Combustion Controls

Post-combustion controls such as cyclones, baghouses, and ESP are not feasible because of the high exhaust volumetric flow rates and low particulate concentrations.

Rank Control Technologies

No ranking of control technologies is necessary as all technically feasible options are proposed as BACT.

Evaluation of Remaining Control Technologies

All technically feasible control technologies are being proposed as BACT for control of $PM_{10}/PM_{2.5}$ emissions from heaters. Therefore, no evaluation of control technologies is required.

4.3.1 Selection of BACT

For the Project dewpoint heaters, the proposed BACT for $PM_{10}/PM_{2.5}$ is 0.0075 lb/MMBtu, on a 12-month rolling average. This will be achieved with good combustion practices and use of pipeline quality natural gas. A review of the RBLC for natural gas-fired heaters sized less than 40 MMBtu/hr showed BACT determinations ranging from 0.005 lb/MMBtu to 0.01 lb/MMBtu, and the proposed emissions for the dewpoint heaters fall within the recent RBLC BACT determinations for natural gas-fired heaters.

4.4 SO_2 BACT Analysis for Heaters

SO_2 Formation

SO_2 is the product of oxidation of sulfur compounds in the fuel.

Identification of Potential Control Technologies

Based on review of RBLC search results and available literature, the following technologies are identified as potentially applicable for controlling SO_2 emissions from heaters:

- Low Sulfur Fuel and
- Good Combustion Practices.

These methods are discussed in greater detail below:

Low Sulfur Fuel

Natural gas fuel has one of the lowest sulfur contents. Since SO_2 is produced by the oxidation of sulfur compounds in the fuel, burning low sulfur fuel is the most effective control technology for controlling SO_2 emissions.

Good Combustion Practices

Good combustion practices include maintaining and operating heaters in accordance with manufacturers' specifications. This will enable the most efficient heater operation and minimize SO_2 emissions.

Elimination of Control Technologies

Based on review of RBLC search, both low sulfur fuel and good combustion practices are feasible for SO_2 control from the heaters. Therefore, no control technologies are eliminated.

Rank Control Technologies

No ranking of control technologies is necessary as all technically feasible options are proposed as BACT.

Evaluation of Remaining Control Technologies

All technically feasible control technologies are proposed as BACT for control of SO_2 emissions from heaters. Therefore, no evaluation of control technologies is required.

4.4.1 Selection of BACT

Pacifico proposes good combustion practices and the use of pipeline quality natural gas fuel as SO_2 BACT for the dewpoint heaters. The sulfur content of the natural gas will not exceed 0.5 gr/100 scf on a 12-month rolling average basis. The use of low sulfur fuel reflects the BACT determination identified in the RBLC search and satisfies TCEQ's Tier I BACT requirements.

4.5 VOC BACT Analysis for Heaters

VOC Formation

VOC formation is described in Section 3.

Identification of Potential Control Technologies

Based on review of RBLC search results and available literature, the following technologies are identified as potentially applicable for controlling VOC emissions from heaters:

- Oxidation Catalyst; and
- Good Combustion Practices.

These methods are discussed in greater detail below:

Oxidation Catalyst

Oxidation catalyst is a post-combustion technology wherein the products of combustion are introduced to a catalytic bed. The catalyst promotes the oxidation of VOC as well as CO, reducing emissions of both.

Good Combustion Practices

Good Combustion Practices include good equipment design, use of natural gas for good mixing, and proper combustion techniques such as optimizing the air to fuel ratio. While these control options are typically less efficient than other technologies, they have minimal environmental and energy impacts.

Elimination of Control Technologies

Based on review of RBLC search, both oxidation catalyst and good combustion practices are feasible for VOC control from the heaters. Therefore, no control technologies are eliminated.

Rank Control Technologies

Although an oxidation catalyst is a feasible emissions control technology for heaters, the Project heaters are small in size (five heaters at 8.8 MMBtu/hr each and fourteen heaters at 11.1 MMBtu/hr each), and a review of the RBLC database indicates good combustion practices and use of pipeline quality natural gas fuel are BACT for heaters in this size range. Therefore, good combustion practices are proposed as BACT for the Project heaters.

Evaluation of Remaining Control Technologies

Good combustion practices are proposed as BACT for the control of VOC emissions from heaters. Therefore, no evaluation of control technologies is required.

4.5.1 Selection of BACT

For the Project dewpoint heaters, the proposed BACT for VOC is 0.0054 lb/MMBtu on a 3-hour average. This will be achieved with the use of good combustion practices and natural gas fuel. A review of the RBLC for natural gas-fired heaters sized less than 40 MMBtu/hr showed BACT determinations for VOC ranging from 0.005 lb/MMBtu to 0.01 lb/MMBtu, and the proposed emissions for the dewpoint heaters fall within the recent RBLC BACT determinations for natural gas-fired heaters.

Section 5
Emergency Engines and Fire Pumps

In this section, BACT is addressed for NO_X, CO, PM_{10}, $PM_{2.5}$, SO_2, and VOC emissions from the emergency engines and fire suppression system pumps. A general review of the RBLC database has been performed for the last 10 years for engines of varying sizes and applications. The results of the RBLC search are included in Appendix D. The following sections outline the BACT analysis for each applicable pollutant. It is important to note, however, that the control technologies considered in the "top-down" analysis for engines were not limited to those found in the RBLC database.

5.1 NO_X BACT Analysis for Emergency Engines and Fire System Pumps

NO_X Formation

NOx is formed in ultra-low-sulfur diesel (ULSD) engines by the oxidation of atmospheric nitrogen found in the combustion air (thermal NOx) and the conversion of nitrogen chemically bound in the fuel (fuel NOx). Thermal NOx is the dominant NOx formation mechanism in ULSD engines because fuel nitrogen levels are typically low. Formation of thermal NOx is highly dependent on the combustion temperature, with the majority of the thermal NOx formed in the high temperature region of the flame.

Identification of Potential Control Technologies

Based on review of RBLC search results and available literature, the following technologies are identified as potentially applicable for controlling NO_X emissions from engines:

- Selective Non-Catalytic Reduction (SNCR);
- Selective Catalytic Reduction (SCR);
- Use of Clean, Low Sulfur Diesel Fuel;
- Limit Operating Hours and
- Proper Engine Design and Good Combustion Practices.

These methods are discussed in greater detail below:

Selective Non-Catalytic Reduction (SNCR)

SNCR technology is discussed in Section 3.

Selective Catalytic Reduction (SCR)

SCR technology is discussed in Section 3.

Use of Clean, ULSD Fuel

Use of clean, ULSD improves combustion efficiency; thus, reducing NOx emissions.

Limit Operating Hours

Limiting the hours of operation for each emergency engine and fire suppression system pump can lower NOx emissions.

Proper Engine Design and Good Combustion Practices

Good Combustion Practices include good equipment design, proper combustion techniques such as optimizing the air to fuel ratio. While these control options are typically less efficient than other technologies, they have minimal environmental and energy impacts.

Elimination of Control Technologies

Selective Non-Catalytic Reduction (SNCR)

The exhaust temperature associated with the emergency engines and fire suppression system pumps is approximately 825°F and 960°F, respectively, which are below the effective operating range of 1,550°F to 1,950°F. As a result, SNCR is not feasible for this application.

Selective Catalytic Reduction (SCR)

The SCR system requires long periods of operating time in order to reach a minimum temperature before the system can operate efficiently. Moreover, the SCR system operates efficiently under steady state conditions. Since the emergency ULSD generator engines and fire suppression system pumps will operate on standby for a maximum of 100 hours per year and will vary loads based on the demand, the operating conditions are not feasible for efficient operation of the SCR system. Hence, this control technology is deemed technically infeasible.

Rank Control Technologies

No ranking of control technologies is necessary as all technically feasible options are proposed as BACT.

Evaluation of Remaining Control Technologies

All technically feasible control technologies are being proposed as BACT for control of NOx emissions from emergency generators and fire suppression system pumps. Therefore, no evaluation of control technologies is required.

5.1.1 Selection of BACT

Pacifico proposes the use of clean, ULSD, limit operating hours, and proper engine design and good combustion practices as NOx BACT for emergency generators and fire suppression system pumps. Based on the equipment vendor emissions guarantee, the NOx BACT limit for emergency generators is 5.21 g/hp-hr, which is EPA Tier 2 Emissions Certified. The NOx BACT limit for fire suppression system pumps is 2.69 g/hp-hr, which is EPA Tier 3 Emissions Certified. The engines will be limited to 100 hours per year of non-emergency operation.

5.2 CO BACT Analysis for the Emergency Engines and Fire System Pumps

CO Formation

CO is formed by the incomplete combustion of ULSD fuel in the combustion chamber. Its formation is influenced by factors such as fuel-air mixing, air-to-fuel ratio, combustion temperature, and residence time. CO is an intermediate product of hydrocarbon combustion, typically generated in hot, oxygen-deficient regions of the combustion chamber and at the cooler edges of lean flame zones.

Identification of Potential Control Technologies

Based on review of RBLC search results and available literature, the following technologies are identified as potentially applicable for controlling CO emissions from engines:

- Oxidation Catalyst;
- Limit Operating Hours and
- Proper Engine Design and Good Combustion Practices.

These methods are discussed in greater detail below:

Oxidation Catalyst

Oxidation catalyst is a post-combustion technology that is used to oxidize CO. The addition of a catalyst to the oxidation process accelerates the rate of oxidation by absorbing oxygen from the air stream and CO in the waste stream onto the catalyst surface to react to form CO_2 and H_2O.

Limit Operating Hours

Limiting the hours of operation for each emergency engine and fire suppression system pump can lower CO emissions.

Proper Engine Design and Good Combustion Practices

Good Combustion Practices include good equipment design, proper combustion techniques such as optimizing the air to fuel ratio. While these control options are typically less efficient than other technologies, they have minimal environmental and energy impacts.

Elimination of Control Technologies

Oxidation Catalyst

Due to the intermittent use of the emergency engines and fire suppression system pumps, the oxidation catalyst does not have sufficient time to warm up to the effective operating temperature. Therefore, this control technology is deemed infeasible.

Rank Control Technologies

No ranking of control technologies is necessary as all technically feasible options are proposed as BACT.

Evaluation of Remaining Control Technologies

All technically feasible control technologies are being proposed as BACT for control of CO emissions from emergency generators and fire suppression system pumps. Therefore, no evaluation of control technologies is required.

5.2.1 Selection of BACT

Pacifico proposes limiting operating hours and proper engine design and good combustion practices as CO BACT for emergency generators and fire suppression system pumps. Based on the equipment vendor emissions guarantee, the CO BACT limit for emergency generators is 0.58 g/hp-hr, which is EPA Tier 2 Emissions Certified. The CO BACT limit for fire suppression system pumps is 0.40 g/hp-hr, which is EPA Tier 3 Emissions Certified. The engines will be limited to 100 hours per year of non-emergency operation.

5.3 $PM_{10}/PM_{2.5}$ BACT Analysis for Emergency Engines and Fire System Pumps

$PM_{10}/PM_{2.5}$ Formation

Internal combustion engines may emit white, blue, and/or black smoke. White smoke in the exhaust typically represents liquid particulates in the exhaust and often occurs during an engine cold start, idling, or low load operation. Blue smoke typically is generated when lubricating oil leaks into the combustion chamber and is partially combusted. Soot is the primary constituent of black smoke. For these various smoke types, proper maintenance is the most effective prevention method.

Identification of Potential Control Technologies

Based on review of RBLC search results and available literature, the following technologies are identified as potentially applicable for controlling $PM_{10}/PM_{2.5}$ emissions from engines:

- Use of Clean, Low Sulfur Diesel Fuel;
- Limit Operating Hours and
- Proper Engine Design and Good Combustion Practices.

These methods are discussed in greater detail below:

Use of Clean, Low Sulfur Diesel Fuel

Use of clean, ULSD fuel improves the combustion efficiency; thus, reducing $PM_{10}/PM_{2.5}$ emissions.

Limit Operating Hours

Limiting the hours of operation for each emergency engine and fire suppression system pump can lower $PM_{10}/PM_{2.5}$ emissions.

Proper Engine Design and Good Combustion Practices

Good Combustion Practices include proper engine design and good combustion practices, such as optimizing the air to fuel ratio.

Elimination of Control Technologies

Based on review of RBLC search results, use of clean, ULSD, limiting operating hours, and proper engine design and good combustion practices are feasible for $PM_{10}/PM_{2.5}$ control from the emergency engines and fire suppression system pumps. Therefore, no control technologies are eliminated.

Rank Control Technologies

No ranking of control technologies is necessary as all technically feasible options are proposed as BACT.

Evaluation of Remaining Control Technologies

All technically feasible control technologies are being proposed as BACT for control of $PM_{10}/PM_{2.5}$ emissions from emergency generators and fire suppression system pumps. Therefore, no evaluation of control technologies is required.

5.3.1 Selection of BACT

Pacifico proposes the use of clean, ULSD, limit operating hours, and proper operation and good combustion practices as $PM_{10}/PM_{2.5}$ BACT for the emergency generators and fire suppression system pumps. Based on the equipment vendor emissions guarantee, the $PM_{10}/PM_{2.5}$ BACT limit for emergency generators is 0.19 g/hp-hr, which is EPA Tier 2 Emissions Certified. The $PM_{10}/PM_{2.5}$ BACT limit for the fire suppression system pumps is 0.06 g/hp-hr, which is EPA Tier 3 Emissions Certified. The engines will be limited to 100 hours per year of non-emergency operation.

5.4 SO_2 BACT Analysis for the Emergency Engines and Fire System Pumps

SO_2 Formation

Oxidation of sulfur in the fuel is the primary cause of SO_2 emissions from the emergency engines and firewater pumps. During combustion, most of the sulfur is emitted as SO_2. The remaining sulfur is further oxidized into sulfur trioxide and then to sulfuric acid.

Identification of Potential Control Technologies

Based on review of RBLC search results and available literature, the following technologies are identified as potentially applicable for controlling SO_2 emissions from engines:

- Use of Clean, Low Sulfur Diesel Fuel;
- Limit Operating Hours and
- Proper Engine Design and Good Combustion Practices.

These methods are discussed in greater detail below:

Use of Clean, Low Sulfur Diesel Fuel

Use of clean, ULSD improves combustion efficiency; thus, reducing SO_2 emissions. In addition, the sulfur content of the ULSD used to operate the engines will be limited to 15 ppm by weight or less.

Limit Operating Hours

Limiting the hours of operation for each emergency engine and firewater pump can lower SO_2 emissions.

Proper Engine Design and Good Combustion Practices

Good Combustion Practices include good equipment design and proper combustion techniques such as optimizing the air to fuel ratio. While these control options are typically less efficient than other technologies, they have minimal environmental and energy impacts.

Elimination of Control Technologies

Based on review of RBLC search, use of ULSD, limiting operating hours, and proper engine design and good combustion practices are feasible for SO_2 control from emergency engines and firewater pumps. Therefore, no control technologies are eliminated.

Rank Control Technologies

No ranking of control technologies is necessary as all technically feasible options are proposed as BACT.

Evaluation of Remaining Control Technologies

All technically feasible control technologies are being proposed as BACT for control of SO_2 emissions from emergency generators and fire suppression system pumps. Therefore, no evaluation of control technologies is required.

5.4.1 Selection of BACT

Pacifico proposes use of ULSD, limit operating hours, and proper engine design and good combustion practices as SO_2 BACT for emergency generators and fire suppression system pumps. Based on the equipment vendor emissions guarantee, the SO_2 BACT limit for emergency generators is 0.006 g/hp-hr, which is EPA Tier 2 Emissions Certified. The SO2 BACT limit for the fire system pumps is limited to a fuel sulfur content of 15 ppm based on 40 CFR Part 60, Subpart IIII. The engines will be limited to 100 hours per year of non-emergency operation.

5.5 VOC BACT Analysis for the Emergency Engines and Fire System Pumps

VOC Formation

VOCs formation is caused by incomplete combustion of the ULSD fuel in the combustion chamber, and depends, to varying degrees, on the extent of fuel mixing, resulting air-to-fuel ratios, combustion temperature, and residence time.

Identification of Potential Control Technologies

Based on review of RBLC search results and available literature, the following technologies are identified as potentially applicable for controlling VOC emissions from engines:

- Oxidation Catalyst;
- Use of Clean, Low Sulfur Diesel Fuel
- Limit Operating Hours and
- Proper Engine Design and Good Combustion Practices.

These methods are discussed in greater detail below:

Oxidation Catalyst

Oxidation catalyst is a post-combustion technology wherein the products of combustion are introduced to a catalytic bed. The catalyst promotes the oxidation of VOC as well as CO, reducing emissions of both.

Use of Clean, Low Sulfur Diesel Fuel

Use of clean, ULSD improves combustion efficiency; thus, reducing VOC emissions.

Limit Operating Hours

Limiting the hours of operation for each emergency engine and fire suppression system pump can lower VOC emissions.

Proper Engine Design and Good Combustion Practices

Good Combustion Practices include good equipment design and proper combustion techniques such as optimizing the air to fuel ratio. While these control options are typically less efficient than other technologies, they have minimal environmental and energy impacts.

Elimination of Control Technologies

Oxidation Catalyst

Due to the intermittent use of the emergency engines and fire suppression system pumps, the oxidation catalyst does not have sufficient time to warm up to the effective operating temperature. Therefore, this control technology is deemed infeasible.

Rank Control Technologies

No ranking of control technologies is necessary as all technically feasible options are proposed as BACT.

Evaluation of Remaining Control Technologies

All technically feasible control technologies are being proposed as BACT for control of VOC emissions from emergency generators and fire suppression system pumps. Therefore, no evaluation of control technologies is required.

5.5.1 Selection of BACT

Pacifico proposes use of ULSD, limit operating hours, and proper engine design and good combustion practices as VOC BACT for emergency generators and fire suppression system pumps. Based on the equipment vendor emissions guarantee, the VOC BACT limit for emergency generators is 0.30 g/hp-hr, which is EPA Tier 2 Emissions Certified. The VOC BACT limit for the fire suppression system pumps is 0.06 g/hp-hr, which is EPA Tier 3 Emissions Certified. The engines will be limited to 100 hours per year of non-emergency operation.

Section 6
Supplemental Engine Generators

In this section, BACT is addressed for NO_X, CO, PM_{10}, $PM_{2.5}$, SO_2, and VOC emissions from the supplemental engine generators. The supplemental generators are natural gas-fired reciprocating internal combustion engine (RICE) units. A review of the RBLC database has been performed for the last 10 years for RICE units of varying sizes and applications. The results of the RBLC search are included in Appendix D. The following sections outline the BACT analysis for each applicable pollutant. It is important to note, however, that the control technologies considered in the "top-down" analysis for engines were not limited to those found in the RBLC database.

6.1 NO_X BACT Analysis for Supplemental Engine Generators

NO_X Formation

NO_X emissions from the supplemental engine generators can be formed via three mechanisms (Thermal NO_X, Fuel NO_X, and Prompt NO_X) previously discussed in Section 3.

Identification of Potential Control Technologies

Based on review of RBLC search results and available literature, the following technologies are identified as potentially applicable for controlling NO_X emissions from supplemental engine generator:

- Selective Non-Catalytic Reduction (SNCR);
- Selective Catalytic Reduction (SCR);
- Limit Operating Hours and
- Proper Engine Design and Good Combustion Practices.

These methods are discussed in greater detail below:

Selective Non-Catalytic Reduction (SNCR)

SNCR technology is discussed in Section 3.

Selective Catalytic Reduction (SCR)

SCR technology is discussed in Section 3.

Limit Operating Hours

Limiting the hours of operation for each supplemental engine generator can lower NOx emissions.

Proper Engine Design and Good Combustion Practices

Good Combustion Practices include use of natural gas, good equipment design, and proper combustion techniques such as optimizing the air to fuel ratio. While these control options are typically less efficient than other technologies, they have minimal environmental and energy impacts.

Elimination of Control Technologies

Selective Non-Catalytic Reduction (SNCR)

The exhaust temperature associated with the supplemental engine generator is approximately 700°F, which is below the effective operating range of 1,550°F to 1,950°F. As a result, SNCR is not feasible for this Project.

Selective Catalytic Reduction (SCR)

The SCR system requires long periods of operating time in order to reach a minimum temperature before the system can operate efficiently. Moreover, the SCR system operates efficiently under steady state conditions. The supplemental engine generators do not operate continuously for extended periods and will only operate for a maximum of 1,000 hours per year each (less than 12% of the year), to support the combustion turbine startup activities and charging the battery energy storage system (BESS), which is used intermittently to support the variable and ramping nature of the data center load. Due to the intermittent use of the supplemental engine generators, an SCR system is not feasible for this application.

Rank Control Technologies

No ranking of control technologies is necessary as all technically feasible options are proposed as BACT.

Evaluation of Remaining Control Technologies

All technically feasible control technologies are being proposed as BACT for control of NOx emissions from supplemental engine generators. Therefore, no evaluation of control technologies is required.

6.1.1 Selection of BACT

Pacifico proposes the use of natural gas, limited operating hours, proper engine operation and good combustion practices as NOx BACT for the supplemental engine generators. The NOx BACT limit for the supplemental engine generators is 0.70 g/hp-hr on a 3-hour average basis, based on equipment vendor guarantee. The proposed NOx BACT limit is more stringent than the applicable 40 CFR Part 60 NSPS Subpart JJJJ emissions standards for stationary RICE (HP>500), which has a NOx limit of 1.0 g/hp-hr. The RICE units will be limited to 1,000 hours per year of operation.

6.2 CO BACT Analysis for Supplemental Engine Generators

CO Formation

CO formation is described in Section 3.

Identification of Potential Control Technologies

Based on review of RBLC search results and available literature, the following technologies are identified as potentially applicable for controlling CO emissions from the supplemental engine generators:

- Oxidation Catalyst;
- Limit Operating Hours and
- Proper Engine Design and Good Combustion Practices.

These methods are discussed in greater detail below:

Oxidation Catalyst

Oxidation catalyst is a post-combustion technology that is used to oxidize CO. The addition of a catalyst to the oxidation process accelerates the rate of oxidation by absorbing oxygen from the air stream and CO in the waste stream onto the catalyst surface to react to form CO_2 and H_2O.

Limit Operating Hours

Limiting the hours of operation for each supplemental engine generator can lower CO emissions.

Proper Engine Design and Good Combustion Practices

Good Combustion Practices include good equipment design and proper combustion techniques such as optimizing the air to fuel ratio. While these control options are typically less efficient than other technologies, they have minimal environmental and energy impacts.

Elimination of Control Technologies

Oxidation Catalyst

The supplemental engine generators operate intermittently and will only operate for a maximum of 1,000 hours per year, which is less than 12% of the time. Due to the intermittent use of the supplemental engine generators, the oxidation catalyst does not have sufficient time to warm up to the effective operating temperature. Therefore, this control technology is deemed infeasible.

Rank Control Technologies

No ranking of control technologies is necessary as all technically feasible options are proposed as BACT.

Evaluation of Remaining Control Technologies

All technically feasible control technologies are being proposed as BACT for control of CO emissions from the supplemental engine generators. Therefore, no evaluation of control technologies is required.

6.2.1 Selection of BACT

Pacifico proposes limited operating hours, proper engine operation and good combustion practices as CO BACT for the supplemental engine generators. The CO BACT limit for supplemental engine generators is 2.0 g/hp-hr on a 3-hour average basis, which is based on 40 CFR Part 60, Subpart JJJJ § 60.4233 (e) emission standards. The RICE units will be limited to 1,000 hours per year of operation.

6.3 $PM_{10}/PM_{2.5}$ BACT Analysis for Supplemental Engine Generators

$PM_{10}/PM_{2.5}$ Formation

$PM_{2.5}/PM_{10}$ formation is described in Section 3.

Identification of Potential Control Technologies

Based on review of RBLC search results and available literature, the following technologies are identified as potentially applicable for controlling $PM_{10}/PM_{2.5}$ emissions from the supplemental engine generators:

- Use of Clean, Low Sulfur Fuel;
- Post-Combustion Controls;
- Limit Operating Hours and
- Proper Engine Design and Good Combustion Practices.

These methods are discussed in greater detail below:

Use of Clean, Low Sulfur Fuel

Use of clean, low-sulfur fuel improves the combustion efficiency; thus, reducing $PM_{10}/PM_{2.5}$ emissions.

Post-Combustion Controls

Post-combustion controls such as cyclones, baghouses, and ESP can be used to control $PM_{10}/PM_{2.5}$ emissions.

Limit Operating Hours

Limiting the hours of operation for each supplemental engine generator can lower $PM_{10}/PM_{2.5}$ emissions.

Proper Engine Design and Good Combustion Practices

Good Combustion Practices include good equipment design, proper combustion techniques such as optimizing the air to fuel ratio. While these control options are typically less efficient than other technologies, they have minimal environmental and energy impacts.

Elimination of Control Technologies

Post-Combustion Controls

Post-combustion controls such as cyclones, baghouses, and ESP are not feasible because of the high exhaust volumetric flow rates and low particulate concentrations.

Rank Control Technologies

No ranking of control technologies is necessary as all technically feasible options are proposed as BACT.

Evaluation of Remaining Control Technologies

All technically feasible control technologies are proposed as BACT for control of $PM_{10}/PM_{2.5}$ emissions from the supplemental engine generators. Therefore, no evaluation of control technologies is required.

6.3.1 Selection of BACT

Pacifico proposes the use of clean, pipeline quality natural gas, limited operating hours, proper operation and good combustion practices as $PM_{10}/PM_{2.5}$ BACT for the supplemental engine generators. The $PM_{10}/PM_{2.5}$ BACT limit for supplemental engine generators is 0.012 g/hp-hr (0.01 lb/MMBtu) on a 12-month rolling average, based on use of pipeline quality natural gas. A review of the RBLC database for natural gas-fired RICE showed BACT determinations ranging from 0.0075 lb/MMBtu to 0.0194 lb/MMBtu, and the proposed emissions for the RICE fall within the recent RBLC listed BACT determinations. The RICE units will be limited to 1,000 hours per year of operation.

6.4 SO_2 BACT Analysis for Supplemental Engine Generators

SO_2 Formation

Oxidation of sulfur in the fuel is the primary cause of SO_2 emissions from the supplemental engine generators. During combustion, most of the sulfur is emitted as SO_2. The remaining sulfur is further oxidized into sulfur trioxide and then to sulfuric acid.

Identification of Potential Control Technologies

Based on review of RBLC search results and available literature, the following technologies are identified as potentially applicable for controlling SO_2 emissions from supplemental engine generators:

- Use of Clean, Low Sulfur Fuel;
- Limit Operating Hours and
- Proper Engine Design and Good Combustion Practices.

These methods are discussed in greater detail below:

Use of Clean, Low Sulfur Fuel

Use of clean, low-sulfur fuel improves the combustion efficiency; thus, reducing SO_2 emissions.

Limit Operating Hours

Limiting the hours of operation for each supplemental engine generator can lower SO_2 emissions.

Proper Engine Design and Good Combustion Practices

Good Combustion Practices include good equipment design and proper combustion techniques such as optimizing the air to fuel ratio. While these control options are typically less efficient than other technologies, they have minimal environmental and energy impacts.

Elimination of Control Technologies

Based on review of RBLC search, use of clean, low sulfur fuel, limiting operating hours, and proper engine design and good combustion practices are feasible for SO_2 control from the supplemental engine generators. Therefore, no control technologies are eliminated.

Rank Control Technologies

No ranking of control technologies is necessary as all technically feasible options are proposed as BACT.

Evaluation of Remaining Control Technologies

All technically feasible control technologies are proposed as BACT for control of SO_2 emissions from the supplemental engine generators. Therefore, no evaluation of control technologies is required.

6.4.1 Selection of BACT

Pacifico proposes use of low sulfur natural gas, limited operating hours, proper operation and good combustion practices as SO_2 BACT for the supplemental engine generators. The SO_2 BACT limit for supplemental engine generators is 0.0017 g/hp-hr on a 12-month rolling average based on use of pipeline quality natural gas. The RICE units will be limited to 1,000 hours per year of operation.

6.5 VOC BACT Analysis for Supplemental Engine Generators

VOC Formation

VOCs formation is caused by incomplete combustion of the fuel in the combustion chamber, and depends, to varying degrees, on the extent of fuel mixing, resulting air-to-fuel ratios, combustion temperature, and residence time.

Identification of Potential Control Technologies

Based on review of RBLC search results and available literature, the following technologies are identified as potentially applicable for controlling VOC emissions from supplemental engine generators:

- Oxidation Catalyst;
- Use of Clean, Low Sulfur Fuel
- Limit Operating Hours and
- Proper Engine Design and Good Combustion Practices.

These methods are discussed in greater detail below:

Oxidation Catalyst

Oxidation catalyst is a post-combustion technology wherein the products of combustion are introduced to a catalytic bed. The catalyst promotes the oxidation of VOC as well as CO, reducing emissions of both.

Use of Clean, Low Sulfur Fuel

Use of clean, low-sulfur fuel improves the combustion efficiency; thus, reducing VOC emissions.

Limit Operating Hours

Limiting the hours of operation for each supplemental engine generator can lower VOC emissions.

Proper Engine Design and Good Combustion Practices

Good Combustion Practices include good equipment design and proper combustion techniques such as optimizing the air to fuel ratio. While these control options are typically less efficient than other technologies, they have minimal environmental and energy impacts.

Elimination of Control Technologies

Oxidation Catalyst

Due to the intermittent use of the supplemental engine generators, the oxidation catalyst does not have sufficient time to warm up to the effective operating temperature. Therefore, this control technology is deemed infeasible.

Rank Control Technologies

No ranking of control technologies is necessary as all technically feasible options are proposed as BACT.

Evaluation of Remaining Control Technologies

All technically feasible control technologies are being proposed as BACT for control of VOC emissions from the supplemental engine generators. Therefore, no evaluation of control technologies is required.

6.5.1 Selection of BACT

Pacifico proposes using clean, pipeline quality natural gas, limited operating hours, proper operation and good combustion practices as VOC BACT for the supplemental engine generators. The VOC BACT limit for supplemental engine generators is 0.70 g/hp-hr, on a 3-hour average basis, which is based on 40 CFR 60, Subpart JJJJ § 60.4233(e) emission standards. The RICE units will be limited to 1,000 hours per year of operation.

Section 7
Natural Gas Piping Fugitives

In this section, BACT is addressed for VOC emissions from natural gas piping fugitives. A review of the RBLC database has been performed for the last 10 years for VOC fugitives. The results of the RBLC search are included in Appendix D. The following sections outline the BACT analysis for each applicable pollutant. It is important to note, however, that the control technologies considered in the "top-down" analysis for combustion turbines were not limited to those found in the RBLC database.

7.1 VOC BACT Analysis for Fugitives

VOC Formation

Natural gas fuel contains trace amounts of VOC and as such, the Project will emit fugitive VOC emissions that originate from the natural gas metering, compression, and piping components such as valves, pumps, flanges, and connectors. The VOC content from natural gas fuel shows trace quantities of VOCs (less than 1%). VOC fugitive emissions were estimated using EPA's Protocol for Equipment Leak Emission Estimates (453/R-95-017), Table 2-4, Oil and Gas Operation Average Emission Factors. Component counts and average natural gas composition calculated from process flow diagrams and engineering data using a conservative safety factor.

Identification of Potential Control Technologies

Based on review of RBLC search results and available literature, the following technologies are identified as potentially applicable for controlling VOC emissions from fugitives:

- Proper Piping Design and Installation;
- Leak Detection and Repair (LDAR) Program and
- Good Work Practices.

These methods are discussed in greater detail below:

Proper Piping Design and Installation

This control technology assists with ensuring a leak-tight system and can include the following:

- Ensure correct bracing;
- Manual Confirmation that all joints are tight;

- Manual visual verification that all pipes are correctly assembled;
- Ensure proper piping design for adequate/desired pressure, including minimization of buried components;
- Ensure correct seal design/selection.

Leak Detection and Repair (LDAR) Program

An LDAR program is intended to identify and repair equipment leaks. Several types of LDAR programs may be utilized to detect leaks to minimize emissions of VOCs.

Good Work Practices

Good work practices can be developed to minimize leaks at the facility.

Elimination of Control Technologies

No control technologies are eliminated.

Rank Control Technologies

No ranking of control technologies is required because all control technologies are technically feasible.

Evaluation of Remaining Control Technologies

Due to low VOC emissions from the natural gas piping fugitives, it is not economically feasible to incorporate an LDAR program to control fugitive emissions. The TCEQ Piping Fugitives, Current Tier I BACT Requirements spreadsheet states that no control is required if uncontrolled VOC emissions are less than 10 tons per year of VOC emissions. Given the VOC emissions are less than one (1) ton per year, the LDAR program is eliminated from any further consideration.

7.1.1 Selection of BACT

Pacifico proposes to use proper piping design and installation and use of good work practices as BACT to control VOC fugitive emissions from natural gas piping components. The proposed VOC BACT limit is 0.01 tpy on a 12-month rolling average basis. Because the fugitive VOC emissions from the natural gas piping components will be less than 10 tons per year, and in this instance, less than one (1) ton per year, a LDAR program will not result in a significant emission reduction and will not be implemented for BACT purposes.

Section 8
Ammonia Fugitives

To ensure that fugitive emissions from piping components in ammonia service are adequately controlled, Pacifico will implement an Audio, Visual, and Olfactory (AVO) Leak Detection and Repair (LDAR) program for control of NH_3 fugitive emissions. Pressure relief valves will be installed on the ammonia system for safety purposes and will be monitored in accordance with the AVO program. These relief valves are designed to activate only in the event of an overpressure condition.

The ammonia storage tank will be designed to prevent pressure buildup due to solar heating, ensuring that sunlight alone will not cause the tank pressure to reach the relief valve set point. This inspection and maintenance program will comply with the TCEQ's technical guidance for chemical source equipment leak fugitives, and therefore meets or exceeds the requirements for BACT.

8.1 Selection of BACT

Pacifico proposes an AVO LDAR program for control of fugitive ammonia emissions from the piping and valves in NH_3 service. Pacifico will perform daily AVO checks and will maintain records of all AVO inspections and maintenance activities to demonstrate that BACT for fugitive NH_3 emissions is achieved.

Section 9
Wet Surface Air Coolers

In this section, BACT is addressed for PM_{10} and $PM_{2.5}$ emissions from the hybrid wet surface air coolers (WSAC). A review of the RBLC database has been performed for the last 10 years for cooling towers. While cooling towers are the closest approximation in the RBLC database to this Project's WSAC, the WSAC design results in a substantial reduction in both water and energy usage in comparison to traditional cooling tower systems. Specifically, the WSAC system recirculates recycled water and can operate at significantly higher cycles of concentration in comparison to cooling towers, thus reducing the evaporation rate and amount of makeup water. Additionally, the wet surface technology is compact and allows for low power consumption due to its high cooling efficiency. The co-current flow design and direct evaporative cooling maximize heat transfer efficiency, allowing for lower fan and pump power consumption to achieve the same cooling capacity.

The WSAC systems have lower PM_{10} and $PM_{2.5}$ emissions in comparison to cooling towers because the hybrid cooling systems have the ability to operate in dry mode, without water spray and subsequent drift, during the cooler months. The results of the RBLC search are included in Appendix D. The following sections outline the BACT analysis for each applicable pollutant.

9.1 $PM_{10}/PM_{2.5}$ BACT Analysis for Wet Surface Air Coolers

$PM_{10}/PM_{2.5}$ Formation

Particulate matter is formed most commonly from wet or evaporative cooling towers. Typically, warm air passes through the cooling tower and causes the liquid water from the towers to be entrained in the air stream as "drift" droplets. The drift droplets evaporate and produce PM_{10} emissions because of the dissolved solids left behind in the droplets.

Identification of Potential Control Technologies

Based on the RBLC review, drift eliminators are the most common PM control option available for wet or evaporative cooling towers.

Elimination of Control Technologies

There are no control technologies that can be eliminated.

Rank Control Technologies

No ranking of control technologies is required because there is only one technically feasible control technology.

Evaluation of Remaining Control Technologies

All technically feasible control technologies are proposed as BACT for control of $PM_{10}/PM_{2.5}$ emissions from coolers. Therefore, no evaluation of control technologies is required.

9.1.1 Selection of BACT

Pacifico proposes drift eliminators with a drift rate of 0.001-percent as $PM_{10}/PM_{2.5}$ BACT for the WSAC on a 12-month rolling average basis, which is consistent with the TCEQ's current Tier I BACT control level for cooling towers. A review of the RBLC for cooling towers showed $PM_{10}/PM_{2.5}$ BACT determinations ranging from 0.0005-percent to 0.005-percent drift loss, and the proposed drift rate for the WSAC falls within the recent RBLC BACT determinations for cooling towers.

Section 10
Lube Oil Recirculation Vents

In this section, BACT is addressed for PM_{10}, $PM_{2.5}$, and VOC emissions from the lube oil recirculation system vents. The following sections outline the BACT analysis for each applicable pollutant.

10.1 $PM_{10}/PM_{2.5}$ and VOC BACT Analysis for Lube Oil Vents

$PM_{10}/PM_{2.5}$ and VOC Formation

The combustion turbines will be equipped with dedicated closed-loop lube oil recirculation systems to lubricate the moving parts. Lubricating oil will be recirculated through the combustion turbines' machinery from the oil sump, and the heating of recirculating lube oil in the turbine and generator housings will create oil vapor and oil droplets in the oil reservoir compartments.

Identification of Potential Control Technologies

An available control technology to control PM_{10}, $PM_{2.5}$ and VOC emissions from lube oil vents is the use of mist eliminators. Oil mist eliminators work by capturing and removing fine oil droplets from air or gas streams, typically using a series of filters or coalescing elements. As the mist-laden air passes through the eliminator, small oil droplets coalesce into larger ones, which are then collected and drained away.

Elimination of Control Technologies

All identified control technologies discussed above are technically feasible. Therefore, no control technologies are eliminated.

Rank Control Technologies

No ranking of control technologies is necessary as all technically feasible options are being implemented by the Project.

Evaluation of Remaining Control Technologies

All technically feasible control technologies are being proposed as BACT for control of PM_{10}, $PM_{2.5}$ and VOC emissions from lube oil vents. Therefore, no evaluation of control technologies is required.

10.1.1 Selection of BACT

Pacifico proposes to use mist eliminators as BACT to control PM_{10}, $PM_{2.5}$ and VOC emissions from lube oil vents. Compliance with the permit MAER of 0.08 tpy on a 12-month rolling basis, which is the annual limit for PM_{10}, $PM_{2.5}$ and VOC each is proposed as BACT for the lube oil recirculation system vents.

Section 11
Diesel Storage Tanks

In this section, BACT is addressed for VOC emissions from the ULSD storage tanks. A review of the RBLC database has been performed for the last 10 years for storage tanks. The results of the RBLC search are included in Appendix D. The following sections outline the BACT analysis for each applicable pollutant. It is important to note, however, that the control technologies considered in the "top-down" analysis for ULSD storage tanks were not limited to those found in the RBLC database.

11.1 VOC BACT Analysis for Diesel Storage Tanks

VOC Formation

The storage tanks will emit VOCs through the tank pressure relief vents, which allow air to enter and exit the tank to prevent tank failure. Breathing losses occur via natural variations in temperature of the tank contents throughout the day, which are caused by radiant heat from the sun as well as atmospheric temperature changes. Working losses occur when the tank is filled and displaced air is vented.

Identification of Potential Control Technologies

Based on review of RBLC search results and available literature, the following technologies are identified as potentially applicable for controlling VOC emissions from storage tanks:

- Fixed Rook Tanks;
- Submerged Fill Pipes;
- White Paint and
- Good Work Practices.

These methods are discussed in greater detail below:

Fixed Roof Tanks

This type of tank features a cylindrical steel shell with a permanently attached roof, which can be cone-shaped, dome-shaped, or flat in design. Vapor losses from fixed roof tanks occur due to fluctuations in temperature, pressure, and liquid level.

Fixed roof tanks are either freely vented or equipped with a pressure/vacuum relief valve. The latter allows the tank to maintain a slight internal pressure or vacuum, minimizing vapor release during very small changes in temperature, pressure, or liquid level.

Submerged Fill Pipes

The fill pipe extends almost to the bottom of the cargo tank. The fill pipe opening is below the liquid surface level. Liquid turbulence is controlled significantly during submerged loading, resulting in much lower vapor generation than encountered during splash loading.

White Paint

The appropriate condition and color of the tank's shell and roof can significantly reduce evaporative losses. Since temperature drives evaporative losses, reducing the temperature of the stored liquid can reduce evaporative losses. Solar radiation will heat the liquid in a storage tank, but the extent of heating is determined by the color and condition of the paint on the tank walls and roof. Paints with a low solar absorptance (i.e., light colored tanks) will heat up less than dark paint with high solar absorptance. White paint is highly reflective and commonly used to minimize tanks' ambient temperature thus reducing evaporative losses.

Good Work Practices

Good work practices to minimize VOC emissions from the diesel storage tanks include regular inspections and maintenance on the tanks.

Elimination of Control Technologies

All identified control technologies discussed above are technically feasible. Therefore, no control technologies are eliminated.

Rank Control Technologies

No ranking of control technologies is necessary as all technically feasible options are being implemented by the Project.

Evaluation of Remaining Control Technologies

All technically feasible control technologies are being proposed as BACT for control of VOC emissions from storage tanks. Therefore, no evaluation of control technologies is required.

11.1.1 Selection of BACT

Pacifico proposes the use of fixed roof tanks, submerged fill pipes, white paint, and good work practices as VOC BACT for the ULSD storage tanks, which meets TCEQ Tier I BACT for storage tanks with a capacity of less than 25,000 gallons or containing a material with a true vapor pressure of less than 0.5 psia. Diesel fuel has a low vapor pressure, which is less than 0.5 pounds per square inch absolute (psia), and the proposed VOC BACT limit is 0.01 tpy for EPNs TNK-DSL1 through TNK-DSL4, and <0.01 tpy for EPNs TNK-DSL5 through TNK-DSL7. Pacifico proposes that BACT is satisfied for the diesel tanks by meeting the Tier I BACT based on the vapor pressure of diesel and the capacity of the diesel storage tanks. Compliance with the annual VOC limits will be based on a 12-month rolling average period.

Section 12
MSS BACT Analysis

In this section, BACT is addressed for Maintenance Startup and Shutdown (MSS) activity emissions from the Project.

12.1 BACT Analysis for Maintenance Activities

Emissions associated with EPN MSSFUG result from routine maintenance activities conducted to ensure the proper operability and monitoring of equipment. The frequency and duration of the identified maintenance activities will be limited such that the calculated emissions will be low enough to be classified as Inherently Low Emitting (ILE) activities. The emissions associated with these ILE maintenance activities are so low that alternative work practices would not result in meaningful emission reductions. The limited duration and frequency of the identified ILE maintenance activities result in insignificant emissions, which satisfies BACT.

12.2 BACT Analysis for Startup and Shutdown Activities

Startup and Shutdown (SUSD) of the combustion turbines will be part of the planned operations of the Project. During planned SUSD periods, emissions may be released from the combustion turbines at higher rates than during normal operations. Each combustion turbine will be started and shutdown in a manner that minimizes the emissions during these events. BACT will be achieved by minimizing the number of startup and shutdown events and limiting their duration such that a startup or shutdown will not exceed 60 minutes each.

Section 13
Greenhouse Gas (GHG) BACT

In this section, BACT is addressed for CO_2e emissions associated with the GHG PSD Permit application. The following sections outline the BACT analysis for each applicable equipment group or activity.

13.1 GHG BACT Analysis for Stationary Gas Turbines

GHG Formation

GHG emissions from natural gas-fired combustion turbines result from the combustion of natural gas and are directly correlated with the amount of fuel burned.

Identification of Potential Control Technologies

Based on review of RBLC search results and available literature, the following technologies are identified as potentially applicable for controlling GHG emissions from combustion turbines:

- Use of Clean, Low-Carbon Fuels;
- Good Combustion, Operating, and Maintenance Practices and
- Carbon Capture and Sequestration (CCS).

These methods are discussed in greater detail below.

As discussed in Section 3, the Project will utilize simple cycle combustion turbines to meet the unique power requirements of the hyperscale AI data center that demands a highly reliable and responsive power envelope due to the dynamic data center load requirements. Alternative turbine configurations such as combined cycle units are not required to be considered as BACT since that would fundamentally redefine the source by requiring the permit applicant to switch to equipment other than the type of equipment that the applicant proposes to install for its site-specific power generation requirements. As such, the use of combined cycle combustion turbines instead of simple cycle combustion turbines is not a potential control technology option that can be applied to the selected process.

Use of Clean Low-Carbon Fuels

Fuels with a lower carbon-to-energy ratio produce fewer CO_2 emissions per unit of energy output. Among commonly used fossil fuels, natural gas emits less CO_2 for the same energy

output compared to coal or fuel oil and is the lowest carbon content fossil fuel. Alternative fuels for turbines including hydrogen and ammonia are currently under investigation through USDOE grants; however, these fuels are not commercially available and are not considered in this evaluation. The Project is designed to utilize pipeline quality natural gas, which is an effective and practical way to minimize CO_2 emissions from stationary gas combustion turbines.

Good Combustion, Operating, and Maintenance Practices

Good combustion, operating, and maintenance practices are integral to the Project and are identified as control methods for the control of CO_2, CH_4, and N_2O. As the gas combustion turbines are operated, they will inevitably experience performance degradation and efficiency loss over time. To mitigate this, the combustion turbines will be equipped with a high efficiency air filtration system which helps reduce the intake of contaminants that cause compressor fouling, one of the primary causes of efficiency loss. To address the compressor fouling that does occur, the combustion turbines will be equipped with a water wash system to clean the compressors while on- or off-line.

Additionally, the combustion turbines will be maintained under a maintenance program developed and implemented by the turbine manufacturer. These programs are crucial, not only for maintaining operational efficiency, but also for ensuring long-term reliability. Maintenance activities will follow a schedule based on operating hours and/or the number of turbine starts. Typically, the maintenance program includes three levels: combustion inspections, hot gas path inspections, and major overhauls. Combustion inspections are performed most frequently and include combustor tuning to ensure continued low-emissions and high-efficiency operation. Hot gas path inspections and major overhauls occur at longer intervals, as prescribed by the manufacturer, and involve the examination and, if needed, replacement of internal components such as turbine or compressor blades to recover performance losses.

Carbon Capture and Sequestration

Carbon capture and sequestration (CCS) is a set of technologies that can greatly reduce CO_2 emissions from certain fossil-fuel-fired power plants and large industrial sources. CCS is a three-step process that includes capture of CO_2, transport of the captured and compressed CO_2, and underground injection and geologic sequestration of the CO_2 into deep underground rock formations. These formations are often a mile or more beneath the surface and consist of porous rock that holds the CO_2.

Elimination of Control Technologies

Carbon Capture and Sequestration

CCS is a comprehensive set of technologies designed to work together to capture CO_2 emissions from stationary sources, compress and transport the CO_2 to an appropriate site, and then inject it deep underground into geologic formations for safe, secure, and permanent storage. The geologic storage process ensures CO_2 is securely trapped in rock layers, preventing its release into the atmosphere. In some cases, captured CO_2 can also be transported and pumped into oil fields and used in enhanced oil recovery (EOR).

For CCS to be considered technically feasible, each stage (capture and compression, transportation, and storage) must be technically feasible. The integrated suite of components must also be technically feasible in the sense that components have been demonstrated to work together without interfering with the essential operation of the units. Accordingly, any potential barriers to the successful integration of these components must be considered in determining whether CCS is technically feasible.

Post-combustion carbon capture technology typically involves the use of scrubbing exhaust gases with an amine solvent. This technology has not been effectively demonstrated on gas combustion turbines. Because combustion turbines take in additional ambient air for functions other than combustion, such as cooling of turbine compressor blades, the exhaust CO_2 concentrations are low due to the air dilution, making carbon capture by way of amine solvent difficult and less effective. Other technologies for carbon capture are currently under development, including polymeric membranes and combined use of membranes and solvents. However, these technologies are either still under development or are not suitable for combustion turbines due to lower CO_2 concentrations in the exhaust stream.

Some degree of capture of CO_2 in flue gas streams has been demonstrated on coal-fired power plants in North America, including for Boundary Dam in Saskatchewan, Canada, and Petra Nova in Texas; however, both projects experienced significant carbon capture equipment issues and downtime, resulting in both facilities underperforming when compared to their target goals, and neither project has been demonstrated as an economically viable control method for CO_2 emissions. The Petra Nova demonstration project was on a slipstream of exhaust from the generating unit. Issues associated with Petra Nova's CCS facility had a significant impact on the plant reliability. It is reported that the Petra Nova CCS system contributed to over 25% of the plant's 367 outage days during its first three years of operation.

Storage and transport must also be technically and economically viable for CCS to be considered technically feasible as potential BACT. Infrastructure must exist to transport

captured CO_2 to a location with suitable geology to be used for storage. While Texas has a network of CO_2 pipelines, primarily to support EOR, none are in close proximity to the Project. Thus, CCS would require a new pipeline to connect the Project to the existing CO_2 transport pipeline, which would result in higher capital investment.

Due to the challenges with carbon capture technology when applied to gas combustion turbines, CCS is not considered technically feasible for the Project.

Rank Control Technologies

No ranking of control technologies is necessary as all technically feasible options are proposed as BACT.

Evaluation of Remaining Control Technologies

All technically feasible control technologies are being proposed as BACT for control of GHG emissions from combustion turbines. Therefore, no evaluation of control technologies is required.

13.1.1 Selection of BACT

For the combustion turbines, the proposed BACT for GHG is 117 lb CO_2e/MMBtu based on 12-month rolling average. This will be achieved with the use of low-carbon fuel, and the use of good combustion, operating, and maintenance practices. Based on the RBLC search conducted for natural gas-fired simple-cycle projects within the last 10 years, the BACT limits either listed a fuel-based limit of 117 lb CO_2e/MMBtu (or greater); listed a turbine output-based limit in terms of lb CO_2e/MWh; or listed an annual mass emissions limit for CO_2e. Natural gas is the lowest carbon content fossil fuel, and good combustion and operating practices with routine combustion turbine tune-ups are proven to improve the fuel efficiency of the combustion equipment.

The combustion turbine gross or net energy output-based standards (in lb CO_2e/MWh) as specified in 40 CFR Part 60 Subpart TTTTa are applicable to Electric Generating Units (EGUs) that serve as generators capable of selling electricity to a utility power distribution system. This Project will not have electric sales, and the electricity produced will be used solely on-site to power an associated data center campus. The Project will be constructed as fully independent, operating in islanding mode. As such, 40 CFR Part 60 Subpart TTTTa is not applicable to this Project because the Project will not be capable of selling electricity to, or purchasing it from, the local utility power grid.

Furthermore, in the proposed rule dated June 17, 2025, 40 CFR Part 60 – Repeal of Greenhouse Gas Emissions Standards for Fossil Fuel-Fired Electric Generating Units, EPA is proposing to repeal all GHG emissions standards for fossil fuel-fired EGUs. As an alternative, EPA is also reconsidering its technical conclusions regarding specific portions of 40 CFR Part 60, Subpart TTTTa. Specifically, EPA is proposing to repeal CCS-based requirements for new base load combustion turbine EGUs because the EPA is proposing that it has not been adequately demonstrated and the costs are not reasonable. Likewise, EPA is reconsidering the Best System of Emission Reduction (BSER) determinations or standards of performance and related requirements for new base load fossil fuel-fired stationary combustion turbines regarding limited dispatch of simple cycle turbines, and use of combined cycle units. Beyond the proposed rule's regulatory implications, EPA's proposal to repeal the GHG standards explicitly cites broader economic and infrastructure needs and links the potential repeal to supporting the construction of AI data processing centers such as this Project.

13.2 GHG BACT Analysis for Heaters

GHG Formation

GHG emissions from heaters result from the combustion of fuel and are related to the type and amount of fuel burned. The less fuel burned per unit of energy produced, the lower the GHG emissions.

Identification of Potential Control Technologies

Based on review of RBLC search results and available literature, the following technologies are identified as potentially applicable for controlling GHG emissions from heaters:

- Use of Clean Fuels;
- Good Combustion Practices,
- Proper Operating and Maintenance Practices and
- Carbon Capture and Sequestration (CCS).

These methods are discussed in greater detail below:

Use of Clean Fuels

Fuels with a lower carbon-to-energy ratio produce fewer CO_2 emissions per unit of energy output. Among commonly used fossil fuels, natural gas emits less CO_2 for the same energy output. The Project is designed to utilize pipeline-quality natural gas, which is an effective and practical way to reduce CO_2 emissions from heaters.

Good Combustion Practices

Good combustion practices include good equipment design, use of natural gas for good mixing, and proper combustion techniques such as optimizing the air to fuel ratio.

Proper Operating and Maintenance Practices

Implementing good operating and maintenance practices to improve the combustion efficiency of the unit. Increasing combustion efficiency reduces fuel consumption, which results in lower GHG emissions.

Carbon Capture and Sequestration

The carbon capture and sequestration control technology is discussed in Section 13.1.

Elimination of Control Technologies

Carbon Capture and Sequestration

Consistent with the gas-fired combustion turbines GHG BACT analysis in Section 13.1, CCS is also not available for the heaters.

Rank Control Technologies

No ranking of control technologies is necessary as all technically feasible options are proposed as BACT.

Evaluation of Remaining Control Technologies

All technically feasible control technologies are being proposed as BACT for control of GHG emissions from heaters. Therefore, no evaluation of control technologies is required

13.2.1 Selection of BACT

For the Project heaters, the proposed BACT for GHG is 117 lb CO_2e/MMBtu on a 12-month rolling average. This will be achieved with the use of low-carbon fuel, and the use of good combustion, operating, and maintenance practices. Based on the RBLC search conducted for heaters within the last 10 years, the BACT limits either listed a fuel-based limit of 117 lb CO2e/MMBtu (or greater), or listed an annual mass emissions limit for CO_2e. Natural gas is the lowest carbon content fossil fuel, and good combustion and operating practices demonstrate BACT for the dewpoint heaters.

13.3 GHG BACT Analysis for Emergency Engines and Fire System Pumps

GHG Formation

GHG emissions from the emergency generators and fire suppression system pumps result from the combustion of ULSD fuel and are directly correlated with the amount of fuel burned. Therefore, the less fuel burned per unit of energy produced, the lower the GHG emissions.

Identification of Potential Control Technologies

Based on review of RBLC search results and available literature, the following technologies are identified as potentially applicable for controlling GHG emissions from emergency generators and fire suppression system pumps:

- Use of Clean Fuels;
- Good Combustion Practices;
- Proper Operating and Maintenance Practices; and
- Carbon Capture and Sequestration.

These methods are discussed in greater detail below:

Use of Clean, ULSD Fuel

Use of clean, ULSD improves combustion efficiency; thus, reducing GHG emissions.

Good Combustion Practices

Good Combustion Practices include good equipment design, and proper combustion techniques such as optimizing the air to fuel ratio. While these control options are typically less efficient than other technologies, they have minimal environmental and energy impacts.

Proper Operating and Maintenance Practices

Implementing good operating and maintenance practices improves the combustion efficiency of the unit. Increasing combustion efficiency reduces fuel consumption, which results in lower GHG emissions.

Carbon Capture and Sequestration

The carbon capture and sequestration control technology analysis is discussed in Section 13.1.

Elimination of Control Technologies

Carbon Capture and Sequestration

Carbon capture and sequestration is not considered a viable control option for emergency equipment that operates intermittently. This type of equipment must be readily available during plant emergencies without the constraint of waiting to start up the carbon capture and sequestration system.

Rank Control Technologies

No ranking of control technologies is necessary as all technically feasible options are proposed as BACT.

Evaluation of Remaining Control Technologies

All technically feasible control technologies are being proposed as BACT for control of GHG emissions from emergency generators and fire suppression system pumps. Therefore, no evaluation of control technologies is required

13.3.1 Selection of BACT

For the Project emergency generator engines and fire suppression system pumps, the proposed BACT for GHG is 84 tpy and 6 tpy of CO_2e on a 12-month rolling basis, respectively. This will be achieved through the use of good combustion practices and use of proper operating and maintenance practices.

13.4 GHG BACT Analysis for Supplemental Engine Generators

GHG Formation

GHG emissions from the supplemental engine generators result from the combustion of fuel and are directly correlated with the amount of fuel burned. The less fuel burned per unit of energy produced, the lower the GHG emissions.

Identification of Potential Control Technologies

Based on review of RBLC search results and available literature, the following technologies are identified as potentially applicable for controlling GHG emissions from supplemental engine generators:

- Use of Clean Fuels;
- Good Combustion Practices;

- Proper Operating and Maintenance Practices and
- Carbon Capture and Sequestration.

These methods are discussed in greater detail below:

Use of Clean Fuels

Fuels with a lower carbon-to-energy ratio produce fewer CO_2 emissions per unit of energy output. Among commonly used fossil fuels, natural gas emits less CO_2 for the same energy output compared to coal or fuel oil. The Project is designed to utilize pipeline-quality natural gas which is an effective and practical way to reduce CO_2 emissions from supplemental engine generators.

Good Combustion Practices

Good Combustion Practices include good equipment design, and proper combustion techniques such as optimizing the air to fuel ratio. While these control options are typically less efficient than other technologies, they have minimal environmental and energy impacts.

Proper Operating and Maintenance Practices

Implementing good operating and maintenance practices improves the combustion efficiency of the unit. Increasing combustion efficiency reduces fuel consumption, which results in lower GHG emissions.

Carbon Capture and Sequestration

The carbon capture and sequestration control technology is discussed in Section 13.1.

Elimination of Control Technologies

Carbon Capture and Sequestration

Carbon capture and sequestration is not considered a viable control option for equipment that operates intermittently. This type of equipment must be readily available during plant emergencies without the constraint of waiting to start up the carbon capture and sequestration system. Further CCS has never been demonstrated on engines of any kind.

Rank Control Technologies

No ranking of control technologies is necessary as all technically feasible options are proposed as BACT.

Evaluation of Remaining Control Technologies

All technically feasible control technologies are being proposed as BACT for control of GHG emissions from the supplemental engine generators. Therefore, no evaluation of control technologies is required

13.4.1 Selection of BACT

For the Project's supplemental engine generators, the proposed BACT for GHG is 117 lb CO_2e/MMBtu on a 12-month rolling average, which is the lowest fuel-based BACT limit in the RBLC database search, and 3,760 tpy of CO_2e on a 12-month rolling basis. This will be achieved with the use of clean fuels, use of good combustion practices and use of proper operating and maintenance practices.

13.5 GHG BACT Analysis for Natural Gas Fugitives

GHG Formation

The Project will emit fugitive GHG emissions that originate from metering, compression, and piping components such as valves, pumps, flanges, and connectors. GHG fugitive emissions were estimated using EPA's Protocol for Equipment Leak Emission Estimates (453/R-95-017), Table 2-4, Oil and Gas Operation Average Emission Factors. Component counts and average natural gas composition were calculated from process flow diagrams and engineering data using a conservative safety factor.

Identification of Potential Control Technologies

Based on review of RBLC search results and available literature, the following technologies are identified as potentially applicable for controlling GHG emissions from fugitives:

- Proper Piping Design and Installation;
- Leak Detection and Repair (LDAR) Program and
- Good Work Practices.

These methods are discussed in greater detail below:

Proper Piping Design and Installation

This control technology assists with ensuring a leak-tight system and can include the following:

- Ensure correct bracing;
- Manual Confirmation that all joints are tight;

- Manual visual verification that all pipes are correctly assembled;
- Ensure proper piping design for adequate/desired pressure, including minimization of buried components;
- Ensure correct seal design/selection.

Leak Detection and Repair (LDAR) Program

An LDAR program is intended to identify and repair equipment leaks. Several types of LDAR programs may be utilized to detect leaks to minimize emissions of GHGs.

Good Work Practices

Good work practices can be developed to minimize leaks at the facility.

Elimination of Control Technologies

No control technologies are eliminated.

Rank Control Technologies

No ranking of control technologies is required because all control technologies are technically feasible.

Evaluation of Remaining Control Technologies

Due to low GHG emissions from the natural gas piping fugitives, it is not economically feasible to incorporate an LDAR program to control fugitive emissions. As such, the LDAR program is eliminated from any further consideration.

13.5.1 Selection of BACT

Pacifico proposes to use proper piping design and installation and use of good work practices as BACT to control GHG emissions from natural gas piping fugitives. The proposed GHG BACT limit is 726 tpy CO_2e on a 12-month rolling average basis.

13.6 GHG BACT Analysis for Circuit Breakers

GHG Formation

Sulfur Hexafluoride (SF_6) is a potent GHG widely used for electrical insulation in high-voltage equipment. Its exceptional dielectric properties make it valuable for voltage insulation, current

interruption, and arc quenching, making it a critical component for electric utilities. SF_6 emissions primarily result from equipment leaks, which are expected to be minimal. SF_6 is only used in sealed and safe systems, which under normal circumstances do not leak gas. According to the International Electrotechnical Commission Standard 62271-1, the allowable leak rate for new high-voltage equipment is 0.5% per year.

Identification of Potential Control Technologies

An effective control technology for limiting fugitive SF_6 emissions is the use of state-of-the-art circuit breakers with leak detection systems. In comparison to older SF_6 circuit breakers, modern breakers are designed as a fully enclosed-pressure system with far lower potential for SF_6 emissions. The use of state-of-the-art circuit breakers and leak detection to control the release of SF_6 is considered technically feasible and is inherent to the Project. USEPA also recommends the use of new and/or upgraded equipment, which feature tighter seals and reduced leaks, as well as the use of leak detection to ensure any leaks can be repaired immediately.

Elimination of Control Technologies

No control technologies are eliminated.

Rank Control Technologies

No ranking of control technologies is necessary as all technically feasible options are being implemented by the Project.

Evaluation of Remaining Control Technologies

All technically feasible control technologies are being proposed as BACT for control of SF_6 emissions from circuit breakers. Therefore, no evaluation of control technologies is required.

13.6.1 Selection of BACT

Pacifico proposes the use of state-of-the-art enclosed-pressure circuit breakers with leak detection system as GHG BACT. The circuit breakers will be designed to meet the latest American National Standards Institute (ANSI) C37.013 standard for high voltage circuit breakers. The proposed SF_6 circuit breakers will have a low-pressure alarm and a low-pressure lockout. This alarm will function as an early leak detector that will bring potential fugitive SF_6 emissions leaks to the attention of the operations staff before a substantial portion of the SF_6 escapes. The lockout prevents any operation of the breaker due to lack of "quenching and cooling" SF_6 gas.

Section 14
Summary of BACT Analyses

The summary of the selected BACT and associated emission limits are summarized in **Table 1-4** and **Table 1-5**.

Table 1-4
BACT Summary for Gas Combustion Turbines

Emission Point Number (EPN)	Pollutant	BACT Limit	Averaging Time	Control Technology
Combustion Turbines, EPNs: CT-1A – CT-21A and CT-1B – CT-14B	NO_X	2.5 ppmvd at 15% O_2	3-hr average	SCR, DLN combustors, and good combustion practices
	CO	5.0 ppmvd at 15% O_2 for Siemens SGT-800	3-hr average	Good combustion practices and clean natural gas (NG) fuel
		9.0 ppmvd at 15% O_2 for Large-frame CGTs	3-hr average	Oxidation catalyst, good combustion practices, clean NG fuel
	$PM_{10}/PM_{2.5}$	Compliance with MAER[1] 3.25 lb/hr for Siemens SGT-800 11.10 lb/hr Large-frame CGTs	1-hr	Good combustion practices and use of pipeline quality natural gas (low sulfur fuel). Fuel sulfur content limited to 0.5 grains per 100 scf
	SO_2	Compliance with MAER[1] 0.74 lb/hr for Siemens SGT-800 5.35 lb/hr for Large-frame CTGs	1-hr	
	VOC	2.0 ppmvd at 15% O_2	3-hr average	Oxidation catalyst and good combustion practices
	GHG	117 lb CO_2e/MMBtu	12-month rolling average	Use of clean low carbon fuel, good combustion practices, proper operating, and maintenance practices
	H_2SO_4	Compliance with MAER[1] 0.11 lb/hr for Siemens SGT-800 0.82 lb/hr for Large-frame CTGs	1-hr	Use of clean fuels with low sulfur content and good combustion practices. Fuel sulfur content limited to 0.5 grains per 100 scf
	NH_3	10.0 ppmvd at 15% O_2 (3-hr) 5.0 ppmvd at 15% O_2 (Annual)	3-hr average	Controlling the ammonia injection system to minimize ammonia slip

[1] Maximum Allowable Emission Rates (MAER)

Table 1-5
BACT Summary for Ancillary Equipment

Emission Point Number (EPN)	Pollutant	BACT Limit	Averaging Time	Control Technology
Dewpoint Heaters, EPNs: DPHEAT1 – DPHEAT19	NO_X	0.011 lb/MMBtu	3-hr average	ULNB and good combustion practices
	CO	50.0 ppmvd at 3% O_2	3-hr average	Good combustion practices
	$PM_{10}/PM_{2.5}$	0.0075 lb/MMBtu	12-month rolling average	Good combustion practices and use of pipeline quality natural gas (low sulfur fuel).
	SO_2	Fuel sulfur content limited to 0.5 grains per 100 scf	12-month rolling average	
	VOC	0.0054 lb/MMBtu	3-hr average	Good combustion practices
	GHG	117 lb CO_2e/MMBtu	12-month rolling average	Use of clean low carbon fuel, good combustion practices, proper operating, and maintenance practices
Emergency Engines, EPNs: EGEN1 – EGEN15	NO_X	5.21 g/hp-hr	12-month rolling average	Use of clean, ULSD fuel, limit operating hours, and proper engine design and good combustion practices
	CO	0.58 g/hp-hr	12-month rolling average	Limit operating hours, proper engine design, and good combustion practices
	$PM_{10}/PM_{2.5}$	0.19 g/hp-hr	12-month rolling average	Use of clean, ULSD, limit operating hours, and proper engine design and good combustion practices
	SO_2	0.006 g/hp-hr	12-month rolling average	
	VOC	0.30 g/hp-hr	12-month rolling average	
	GHG	Compliance with MAER[1] 84 tpy (each)	12-month rolling average	Use of clean low carbon fuel, good combustion practices, proper operating, and maintenance practices
Emergency Fire System Pump Engines, EPNs: FPUMP1 – FPUMP2	NO_X	2.69 g/hp-hr	12-month rolling average	Use of clean, ULSD, limit operating hours, and proper engine design and good combustion practices
	CO	0.40 g/hp-hr	12-month rolling average	Limit operating hours, proper engine design, and good combustion practices

Emission Point Number (EPN)	Pollutant	BACT Limit	Averaging Time	Control Technology
	$PM_{10}/PM_{2.5}$	0.06 g/hp-hr	12-month rolling average	Use of clean, ULSD, limit operating hours, and proper engine design and good combustion practices
	SO_2	Fuel sulfur content of 15 ppm	12-month rolling average	
	VOC	0.06 g/hp-hr	12-month rolling average	
	GHG	Compliance with MAER[1] 6 tpy (each)	12-month rolling average	Use of clean low carbon fuel, good combustion practices, proper operating, and maintenance practices
Supplemental Engine Generators, EPNs: ENGINE-1 – ENGINE-2	NO_X	0.70 g/hp-hr	3-hr average	Use of natural gas, limit operating hours, proper engine design and good combustion practices
	CO	2.0 g/hp-hr	3-hr average	Limit operating hours and proper engine design and good combustion practices
	$PM_{10}/PM_{2.5}$	0.012 g/hp-hr	12-month rolling average	Use of clean, pipeline quality low sulfur natural gas, limit operating hours, proper engine design and good combustion practices
	SO_2	0.0017 g/hp-hr	12-month rolling average	
	VOC	0.70 g/hp-hr	3-hr average	
	GHG	Compliance with MAER[1] 3,760 tpy (each)	12-month rolling average	Use of clean low carbon fuel, good combustion practices, proper operating, and maintenance practices
Natural Gas Piping System Fugitives, EPN: NGFUG	VOC	Compliance with MAER[1] 0.01 tpy	12-month rolling average	Use proper piping design and installation and use of good work practices
	GHG	Compliance with MAER[1] 726 tpy	12-month rolling average	
Ammonia System Fugitives, EPN: NH3FUG	NH_3	Compliance with MAER[1] 0.07 tpy	12-month rolling average	AVO Leak Detection and Repair (LDAR) program
WSAC, EPNs: CO-1 through CO-19	$PM_{10}/PM_{2.5}$	0.001-percent drift rate	12-month rolling average	Drift eliminators maintained and inspected at least annually.

Emission Point Number (EPN)	Pollutant	BACT Limit	Averaging Time	Control Technology
Lube Oil Recirculation Vents, EPNs: OILVENT1 – OILVENT35	$PM_{10}/PM_{2.5}$	Compliance with MAER[1] 0.08 tpy	12-month rolling average	Mist eliminators
	VOC	Compliance with MAER[1] 0.08 tpy	12-month rolling average	Mist eliminators
USLD Storage Tanks EPNs: TNK-DSL1 - TNK-DSL7	VOC	Compliance with MAER[1] 0.01 tpy for TNK-DSL1 – 4 and <0.01 tpy for TNK-DSL5 – 7	12-month rolling average	Fixed roof tanks with submerged fill pipes, white paint; proper work practices
Insulated Electrical Equipment, EPN: CRTBRK	GHG (SF_6)	Compliance with MAER[1] 0.62 tpy	12-month rolling average	Use of state-of-the-art circuit breakers with leak detection system

[1] Maximum Allowable Emission Rates (MAER)

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**VOC**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
	Affected or Modified Facilities [2]		**Permit No.**	**Actual Emissions [3]**	**Baseline Emissions [4]**	**Proposed Emissions [5]**	**Projected Actual Emissions**	**Difference (B-A) [6]**	**Correction [7] (Could Have Accomodated)**	**Project Increase [8]**
	FIN	**EPN [2]**								
1	NGFUG	NGFUG	TBD	NA	NA	0.00	NA	NA	NA	4.62E-03
2	CT-1A	CT-1A	TBD	NA	NA	6.49	NA	NA	NA	6.49
3	CT-2A	CT-2A	TBD	NA	NA	6.49	NA	NA	NA	6.49
4	CT-3A	CT-3A	TBD	NA	NA	6.49	NA	NA	NA	6.49
5	CT-4A	CT-4A	TBD	NA	NA	6.49	NA	NA	NA	6.49
6	CT-5A	CT-5A	TBD	NA	NA	6.49	NA	NA	NA	6.49
7	CT-6A	CT-6A	TBD	NA	NA	6.49	NA	NA	NA	6.49
8	CT-7A	CT-7A	TBD	NA	NA	6.49	NA	NA	NA	6.49
9	CT-8A	CT-8A	TBD	NA	NA	6.49	NA	NA	NA	6.49
10	CT-9A	CT-9A	TBD	NA	NA	6.49	NA	NA	NA	6.49
11	CT-10A	CT-10A	TBD	NA	NA	6.49	NA	NA	NA	6.49
12	CT-11A	CT-11A	TBD	NA	NA	6.49	NA	NA	NA	6.49
13	CT-12A	CT-12A	TBD	NA	NA	6.49	NA	NA	NA	6.49
14	CT-13A	CT-13A	TBD	NA	NA	6.49	NA	NA	NA	6.49
15	CT-14A	CT-14A	TBD	NA	NA	6.49	NA	NA	NA	6.49
16	CT-15A	CT-15A	TBD	NA	NA	6.49	NA	NA	NA	6.49
17	CT-16A	CT-16A	TBD	NA	NA	6.49	NA	NA	NA	6.49
18	CT-17A	CT-17A	TBD	NA	NA	6.49	NA	NA	NA	6.49
19	CT-18A	CT-18A	TBD	NA	NA	6.49	NA	NA	NA	6.49
20	CT-19A	CT-19A	TBD	NA	NA	6.49	NA	NA	NA	6.49
21	CT-20A	CT-20A	TBD	NA	NA	6.49	NA	NA	NA	6.49

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**VOC**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
	Affected or Modified Facilities [2]		**Permit No.**	**Actual Emissions [3]**	**Baseline Emissions [4]**	**Proposed Emissions [5]**	**Projected Actual Emissions**	**Difference (B-A) [6]**	**Correction [7] (Could Have Accomodated)**	**Project Increase [8]**
	FIN	**EPN [2]**								
22	CT-21A	CT-21A	TBD	NA	NA	6.49	NA	NA	NA	6.49
23	CT-1B	CT-1B	TBD	NA	NA	46.62	NA	NA	NA	46.62
24	CT-2B	CT-2B	TBD	NA	NA	46.62	NA	NA	NA	46.62
25	CT-3B	CT-3B	TBD	NA	NA	46.62	NA	NA	NA	46.62
26	CT-4B	CT-4B	TBD	NA	NA	46.62	NA	NA	NA	46.62
27	CT-5B	CT-5B	TBD	NA	NA	46.62	NA	NA	NA	46.62
28	CT-6B	CT-6B	TBD	NA	NA	46.62	NA	NA	NA	46.62
29	CT-7B	CT-7B	TBD	NA	NA	46.62	NA	NA	NA	46.62
30	CT-8B	CT-8B	TBD	NA	NA	46.62	NA	NA	NA	46.62
31	CT-9B	CT-9B	TBD	NA	NA	46.62	NA	NA	NA	46.62
32	CT-10B	CT-10B	TBD	NA	NA	46.62	NA	NA	NA	46.62
33	CT-11B	CT-11B	TBD	NA	NA	46.62	NA	NA	NA	46.62
34	CT-12B	CT-12B	TBD	NA	NA	46.62	NA	NA	NA	46.62
35	CT-13B	CT-13B	TBD	NA	NA	46.62	NA	NA	NA	46.62
36	CT-14B	CT-14B	TBD	NA	NA	46.62	NA	NA	NA	46.62
37	DPHEAT1	DPHEAT1	TBD	NA	NA	0.21	NA	NA	NA	0.21
38	DPHEAT2	DPHEAT2	TBD	NA	NA	0.21	NA	NA	NA	0.21
39	DPHEAT3	DPHEAT3	TBD	NA	NA	0.21	NA	NA	NA	0.21
40	DPHEAT4	DPHEAT4	TBD	NA	NA	0.21	NA	NA	NA	0.21
41	DPHEAT5	DPHEAT5	TBD	NA	NA	0.21	NA	NA	NA	0.21
42	DPHEAT6	DPHEAT6	TBD	NA	NA	0.26	NA	NA	NA	0.26

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**VOC**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
	Affected or Modified Facilities [2]		**Permit No.**	**Actual Emissions [3]**	**Baseline Emissions [4]**	**Proposed Emissions [5]**	**Projected Actual Emissions**	**Difference (B-A) [6]**	**Correction [7] (Could Have Accomodated)**	**Project Increase [8]**
	FIN	**EPN [2]**								
43	DPHEAT7	DPHEAT7	TBD	NA	NA	0.26	NA	NA	NA	0.26
44	DPHEAT8	DPHEAT8	TBD	NA	NA	0.26	NA	NA	NA	0.26
45	DPHEAT9	DPHEAT9	TBD	NA	NA	0.26	NA	NA	NA	0.26
46	DPHEAT10	DPHEAT10	TBD	NA	NA	0.26	NA	NA	NA	0.26
47	DPHEAT11	DPHEAT11	TBD	NA	NA	0.26	NA	NA	NA	0.26
48	DPHEAT12	DPHEAT12	TBD	NA	NA	0.26	NA	NA	NA	0.26
49	DPHEAT13	DPHEAT13	TBD	NA	NA	0.26	NA	NA	NA	0.26
50	DPHEAT14	DPHEAT14	TBD	NA	NA	0.26	NA	NA	NA	0.26
51	DPHEAT15	DPHEAT15	TBD	NA	NA	0.26	NA	NA	NA	0.26
52	DPHEAT16	DPHEAT16	TBD	NA	NA	0.26	NA	NA	NA	0.26
53	DPHEAT17	DPHEAT17	TBD	NA	NA	0.26	NA	NA	NA	0.26
54	DPHEAT18	DPHEAT18	TBD	NA	NA	0.26	NA	NA	NA	0.26
55	DPHEAT19	DPHEAT19	TBD	NA	NA	0.26	NA	NA	NA	0.26
56	OILVENT1	OILVENT1	TBD	NA	NA	0.08	NA	NA	NA	0.08
57	OILVENT2	OILVENT2	TBD	NA	NA	0.08	NA	NA	NA	0.08
58	OILVENT3	OILVENT3	TBD	NA	NA	0.08	NA	NA	NA	0.08
59	OILVENT4	OILVENT4	TBD	NA	NA	0.08	NA	NA	NA	0.08
60	OILVENT5	OILVENT5	TBD	NA	NA	0.08	NA	NA	NA	0.08
61	OILVENT6	OILVENT6	TBD	NA	NA	0.08	NA	NA	NA	0.08
62	OILVENT7	OILVENT7	TBD	NA	NA	0.08	NA	NA	NA	0.08
63	OILVENT8	OILVENT8	TBD	NA	NA	0.08	NA	NA	NA	0.08

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**VOC**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
	Affected or Modified Facilities [2]		**Permit No.**	**Actual Emissions [3]**	**Baseline Emissions [4]**	**Proposed Emissions [5]**	**Projected Actual Emissions**	**Difference (B-A) [6]**	**Correction [7] (Could Have Accomodated)**	**Project Increase [8]**
	FIN	**EPN [2]**								
64	OILVENT9	OILVENT9	TBD	NA	NA	0.08	NA	NA	NA	0.08
65	OILVENT10	OILVENT10	TBD	NA	NA	0.08	NA	NA	NA	0.08
66	OILVENT11	OILVENT11	TBD	NA	NA	0.08	NA	NA	NA	0.08
67	OILVENT12	OILVENT12	TBD	NA	NA	0.08	NA	NA	NA	0.08
68	OILVENT13	OILVENT13	TBD	NA	NA	0.08	NA	NA	NA	0.08
69	OILVENT14	OILVENT14	TBD	NA	NA	0.08	NA	NA	NA	0.08
70	OILVENT15	OILVENT15	TBD	NA	NA	0.08	NA	NA	NA	0.08
71	OILVENT16	OILVENT16	TBD	NA	NA	0.08	NA	NA	NA	0.08
72	OILVENT17	OILVENT17	TBD	NA	NA	0.08	NA	NA	NA	0.08
73	OILVENT18	OILVENT18	TBD	NA	NA	0.08	NA	NA	NA	0.08
74	OILVENT19	OILVENT19	TBD	NA	NA	0.08	NA	NA	NA	0.08
75	OILVENT20	OILVENT20	TBD	NA	NA	0.08	NA	NA	NA	0.08
76	OILVENT21	OILVENT21	TBD	NA	NA	0.08	NA	NA	NA	0.08
77	OILVENT22	OILVENT22	TBD	NA	NA	0.08	NA	NA	NA	0.08
78	OILVENT23	OILVENT23	TBD	NA	NA	0.08	NA	NA	NA	0.08
79	OILVENT24	OILVENT24	TBD	NA	NA	0.08	NA	NA	NA	0.08
80	OILVENT25	OILVENT25	TBD	NA	NA	0.08	NA	NA	NA	0.08
81	OILVENT26	OILVENT26	TBD	NA	NA	0.08	NA	NA	NA	0.08

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**VOC**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
	Affected or Modified Facilities [2]		**Permit No.**	**Actual Emissions [3]**	**Baseline Emissions [4]**	**Proposed Emissions [5]**	**Projected Actual Emissions**	**Difference (B-A) [6]**	**Correction [7] (Could Have Accomodated)**	**Project Increase [8]**
	FIN	**EPN [2]**								
82	OILVENT27	OILVENT27	TBD	NA	NA	0.08	NA	NA	NA	0.08
83	OILVENT28	OILVENT28	TBD	NA	NA	0.08	NA	NA	NA	0.08
84	OILVENT29	OILVENT29	TBD	NA	NA	0.08	NA	NA	NA	0.08
85	OILVENT30	OILVENT30	TBD	NA	NA	0.08	NA	NA	NA	0.08
86	OILVENT31	OILVENT31	TBD	NA	NA	0.08	NA	NA	NA	0.08
87	OILVENT32	OILVENT32	TBD	NA	NA	0.08	NA	NA	NA	0.08
88	OILVENT33	OILVENT33	TBD	NA	NA	0.08	NA	NA	NA	0.08
89	OILVENT34	OILVENT34	TBD	NA	NA	0.08	NA	NA	NA	0.08
90	OILVENT35	OILVENT35	TBD	NA	NA	0.08	NA	NA	NA	0.08
91	TNK-DSL1	TNK-DSL1	TBD	NA	NA	0.01	NA	NA	NA	0.01
92	TNK-DSL2	TNK-DSL2	TBD	NA	NA	0.01	NA	NA	NA	0.01
93	TNK-DSL3	TNK-DSL3	TBD	NA	NA	0.01	NA	NA	NA	0.01
94	TNK-DSL4	TNK-DSL4	TBD	NA	NA	0.01	NA	NA	NA	0.01
95	TNK-DSL5	TNK-DSL5	TBD	NA	NA	0.00	NA	NA	NA	0.003
96	TNK-DSL6	TNK-DSL6	TBD	NA	NA	0.00	NA	NA	NA	0.003
97	TNK-DSL7	TNK-DSL7	TBD	NA	NA	0.00	NA	NA	NA	0.003
98	FPUMP1	FPUMP1	TBD	NA	NA	0.00	NA	NA	NA	0.002
99	FPUMP2	FPUMP2	TBD	NA	NA	0.00	NA	NA	NA	0.002
100	EGEN1	EGEN1	TBD	NA	NA	0.13	NA	NA	NA	0.13
101	EGEN2	EGEN2	TBD	NA	NA	0.13	NA	NA	NA	0.13
102	EGEN3	EGEN3	TBD	NA	NA	0.13	NA	NA	NA	0.13

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**VOC**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
Affected or Modified Facilities [2]			**Permit No.**	**Actual Emissions [3]**	**Baseline Emissions [4]**	**Proposed Emissions [5]**	**Projected Actual Emissions**	**Difference (B-A) [6]**	**Correction [7] (Could Have Accomodated)**	**Project Increase [8]**
	FIN	**EPN [2]**								
103	EGEN4	EGEN4	TBD	NA	NA	0.13	NA	NA	NA	0.13
104	EGEN5	EGEN5	TBD	NA	NA	0.13	NA	NA	NA	0.13
105	EGEN6	EGEN6	TBD	NA	NA	0.13	NA	NA	NA	0.13
106	EGEN7	EGEN7	TBD	NA	NA	0.13	NA	NA	NA	0.13
107	EGEN8	EGEN8	TBD	NA	NA	0.13	NA	NA	NA	0.13
108	EGEN9	EGEN9	TBD	NA	NA	0.13	NA	NA	NA	0.13
109	EGEN10	EGEN10	TBD	NA	NA	0.13	NA	NA	NA	0.13
110	EGEN11	EGEN11	TBD	NA	NA	0.13	NA	NA	NA	0.13
111	EGEN12	EGEN12	TBD	NA	NA	0.13	NA	NA	NA	0.13
112	EGEN13	EGEN13	TBD	NA	NA	0.13	NA	NA	NA	0.13
113	EGEN14	EGEN14	TBD	NA	NA	0.13	NA	NA	NA	0.13
114	EGEN15	EGEN15	TBD	NA	NA	0.13	NA	NA	NA	0.13
115	ENGINE-1	ENGINE-1	TBD	NA	NA	19.47	NA	NA	NA	19.47

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**VOC**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
Affected or Modified Facilities [2]			**Permit No.**	**Actual Emissions [3]**	**Baseline Emissions [4]**	**Proposed Emissions [5]**	**Projected Actual Emissions**	**Difference (B-A) [6]**	**Correction [7] (Could Have Accomodated)**	**Project Increase [8]**
	FIN	**EPN [2]**								
116	ENGINE-2	ENGINE-2	TBD	NA	NA	19.47	NA	NA	NA	19.47
117	MSSFUG	MSSFUG	TBD	NA	NA	0.55	NA	NA	NA	0.55
Summary of Contemporaneous Changes								**Total**	**0.00**	**837.99**

Explanation (Table 2F Supplement):

[1] Individual Table 2F's should be used to summarize the project emission increase for each criteria pollutant.

[2] Emission Point Number as designated in NSR Permit or Emissions Inventory.

[3] All records and calculations for these values must be available upon request.

[4] Correct actual emissions for currently applicable rule or permit requirements, and periods of non-compliance. These corrections, as well as any MSS previously demonstrated under 30 TAC 101, should be explained in the Table 2F supplement.

[5] If projected actual emission is used it must be noted in the next column and the basis for the projection identified in the Table 2F supplement.

[6] Proposed Emissions (column B) minus Baseline Emissions (column A).

[7] Correction made to emission increase for what portion could have been accommodated during the baseline period. The justification and basis for this estimate must be provided in the Table 2F supplement.

[8] Obtained by subtracting the correction from the difference. Must be a positive number.

[9] Sum all values for this page.

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**NOx**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

						A	B			
	Affected or Modified Facilities [2]		Permit No.	Actual Emissions [3]	Baseline Emissions [4]	Proposed Emissions [5]	Projected Actual Emissions	Difference (B-A) [6]	Correction [7] (Could Have Accomodated)	Project Increase [8]
	FIN	EPN [2]								
1	CT-1A	CT-1A	TBD	NA	NA	21.99	NA	NA	NA	21.99
2	CT-2A	CT-2A	TBD	NA	NA	21.99	NA	NA	NA	21.99
3	CT-3A	CT-3A	TBD	NA	NA	21.99	NA	NA	NA	21.99
4	CT-4A	CT-4A	TBD	NA	NA	21.99	NA	NA	NA	21.99
5	CT-5A	CT-5A	TBD	NA	NA	21.99	NA	NA	NA	21.99
6	CT-6A	CT-6A	TBD	NA	NA	21.99	NA	NA	NA	21.99
7	CT-7A	CT-7A	TBD	NA	NA	21.99	NA	NA	NA	21.99
8	CT-8A	CT-8A	TBD	NA	NA	21.99	NA	NA	NA	21.99
9	CT-9A	CT-9A	TBD	NA	NA	21.99	NA	NA	NA	21.99
10	CT-10A	CT-10A	TBD	NA	NA	21.99	NA	NA	NA	21.99
11	CT-11A	CT-11A	TBD	NA	NA	21.99	NA	NA	NA	21.99
12	CT-12A	CT-12A	TBD	NA	NA	21.99	NA	NA	NA	21.99
13	CT-13A	CT-13A	TBD	NA	NA	21.99	NA	NA	NA	21.99
14	CT-14A	CT-14A	TBD	NA	NA	21.99	NA	NA	NA	21.99
15	CT-15A	CT-15A	TBD	NA	NA	21.99	NA	NA	NA	21.99
16	CT-16A	CT-16A	TBD	NA	NA	21.99	NA	NA	NA	21.99
17	CT-17A	CT-17A	TBD	NA	NA	21.99	NA	NA	NA	21.99
18	CT-18A	CT-18A	TBD	NA	NA	21.99	NA	NA	NA	21.99
19	CT-19A	CT-19A	TBD	NA	NA	21.99	NA	NA	NA	21.99
20	CT-20A	CT-20A	TBD	NA	NA	21.99	NA	NA	NA	21.99
21	CT-21A	CT-21A	TBD	NA	NA	21.99	NA	NA	NA	21.99

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**NOx**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
	Affected or Modified Facilities [2]		**Permit No.**	**Actual Emissions [3]**	**Baseline Emissions [4]**	**Proposed Emissions [5]**	**Projected Actual Emissions**	**Difference (B-A) [6]**	**Correction [7] (Could Have Accomodated)**	**Project Increase [8]**
	FIN	**EPN [2]**								
22	CT-1B	CT-1B	TBD	NA	NA	163.22	NA	NA	NA	163.22
23	CT-2B	CT-2B	TBD	NA	NA	163.22	NA	NA	NA	163.22
24	CT-3B	CT-3B	TBD	NA	NA	163.22	NA	NA	NA	163.22
25	CT-4B	CT-4B	TBD	NA	NA	163.22	NA	NA	NA	163.22
26	CT-5B	CT-5B	TBD	NA	NA	163.22	NA	NA	NA	163.22
27	CT-6B	CT-6B	TBD	NA	NA	163.22	NA	NA	NA	163.22
28	CT-7B	CT-7B	TBD	NA	NA	163.22	NA	NA	NA	163.22
29	CT-8B	CT-8B	TBD	NA	NA	163.22	NA	NA	NA	163.22
30	CT-9B	CT-9B	TBD	NA	NA	163.22	NA	NA	NA	163.22
31	CT-10B	CT-10B	TBD	NA	NA	163.22	NA	NA	NA	163.22
32	CT-11B	CT-11B	TBD	NA	NA	163.22	NA	NA	NA	163.22
33	CT-12B	CT-12B	TBD	NA	NA	163.22	NA	NA	NA	163.22
34	CT-13B	CT-13B	TBD	NA	NA	163.22	NA	NA	NA	163.22
35	CT-14B	CT-14B	TBD	NA	NA	163.22	NA	NA	NA	163.22
36	DPHEAT1	DPHEAT1	TBD	NA	NA	0.42	NA	NA	NA	0.42
37	DPHEAT2	DPHEAT2	TBD	NA	NA	0.42	NA	NA	NA	0.42
38	DPHEAT3	DPHEAT3	TBD	NA	NA	0.42	NA	NA	NA	0.42
39	DPHEAT4	DPHEAT4	TBD	NA	NA	0.42	NA	NA	NA	0.42
40	DPHEAT5	DPHEAT5	TBD	NA	NA	0.42	NA	NA	NA	0.42
41	DPHEAT6	DPHEAT6	TBD	NA	NA	0.53	NA	NA	NA	0.53
42	DPHEAT7	DPHEAT7	TBD	NA	NA	0.53	NA	NA	NA	0.53

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**NOx**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
	Affected or Modified Facilities [2]		**Permit No.**	**Actual Emissions [3]**	**Baseline Emissions [4]**	**Proposed Emissions [5]**	**Projected Actual Emissions**	**Difference (B-A) [6]**	**Correction [7] (Could Have Accomodated)**	**Project Increase [8]**
	FIN	**EPN [2]**								
43	DPHEAT8	DPHEAT8	TBD	NA	NA	0.53	NA	NA	NA	0.53
44	DPHEAT9	DPHEAT9	TBD	NA	NA	0.53	NA	NA	NA	0.53
45	DPHEAT10	DPHEAT10	TBD	NA	NA	0.53	NA	NA	NA	0.53
46	DPHEAT11	DPHEAT11	TBD	NA	NA	0.53	NA	NA	NA	0.53
47	DPHEAT12	DPHEAT12	TBD	NA	NA	0.53	NA	NA	NA	0.53
48	DPHEAT13	DPHEAT13	TBD	NA	NA	0.53	NA	NA	NA	0.53
49	DPHEAT14	DPHEAT14	TBD	NA	NA	0.53	NA	NA	NA	0.53
50	DPHEAT15	DPHEAT15	TBD	NA	NA	0.53	NA	NA	NA	0.53
51	DPHEAT16	DPHEAT16	TBD	NA	NA	0.53	NA	NA	NA	0.53
52	DPHEAT17	DPHEAT17	TBD	NA	NA	0.53	NA	NA	NA	0.53
53	DPHEAT18	DPHEAT18	TBD	NA	NA	0.53	NA	NA	NA	0.53
54	DPHEAT19	DPHEAT19	TBD	NA	NA	0.53	NA	NA	NA	0.53
55	FPUMP1	FPUMP1	TBD	NA	NA	0.09	NA	NA	NA	0.09
56	FPUMP2	FPUMP2	TBD	NA	NA	0.09	NA	NA	NA	0.09
57	EGEN1	EGEN1	TBD	NA	NA	2.31	NA	NA	NA	2.31
58	EGEN2	EGEN2	TBD	NA	NA	2.31	NA	NA	NA	2.31
59	EGEN3	EGEN3	TBD	NA	NA	2.31	NA	NA	NA	2.31
60	EGEN4	EGEN4	TBD	NA	NA	2.31	NA	NA	NA	2.31
61	EGEN5	EGEN5	TBD	NA	NA	2.31	NA	NA	NA	2.31
62	EGEN6	EGEN6	TBD	NA	NA	2.31	NA	NA	NA	2.31
63	EGEN7	EGEN7	TBD	NA	NA	2.31	NA	NA	NA	2.31

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**NOx**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
Affected or Modified Facilities [2]			**Permit No.**	**Actual Emissions [3]**	**Baseline Emissions [4]**	**Proposed Emissions [5]**	**Projected Actual Emissions**	**Difference (B-A) [6]**	**Correction [7] (Could Have Accomodated)**	**Project Increase [8]**
	FIN	**EPN [2]**								
64	EGEN8	EGEN8	TBD	NA	NA	2.31	NA	NA	NA	2.31
65	EGEN9	EGEN9	TBD	NA	NA	2.31	NA	NA	NA	2.31
66	EGEN10	EGEN10	TBD	NA	NA	2.31	NA	NA	NA	2.31
67	EGEN11	EGEN11	TBD	NA	NA	2.31	NA	NA	NA	2.31
68	EGEN12	EGEN12	TBD	NA	NA	2.31	NA	NA	NA	2.31
69	EGEN13	EGEN13	TBD	NA	NA	2.31	NA	NA	NA	2.31
70	EGEN14	EGEN14	TBD	NA	NA	2.31	NA	NA	NA	2.31
71	EGEN15	EGEN15	TBD	NA	NA	2.31	NA	NA	NA	2.31
72	ENGINE-1	ENGINE-1	TBD	NA	NA	19.47	NA	NA	NA	19.47
73	ENGINE-2	ENGINE-2	TBD	NA	NA	19.47	NA	NA	NA	19.47
74	MSSFUG	MSSFUG	TBD	NA	NA	0.00	NA	NA	NA	0.00
Summary of Contemporaneous Changes								**Total**	**0.00**	**2,830.28**

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**NOx**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
Affected or Modified Facilities [2]			**Permit No.**	**Actual Emissions [3]**	**Baseline Emissions [4]**	**Proposed Emissions [5]**	**Projected Actual Emissions**	**Difference (B-A) [6]**	**Correction [7] (Could Have Accomodated)**	**Project Increase [8]**
	FIN	**EPN [2]**								
Explanation (Table 2F Supplement):										

[1] Individual Table 2F's should be used to summarize the project emission increase for each criteria pollutant.

[2] Emission Point Number as designated in NSR Permit or Emissions Inventory.

[3] All records and calculations for these values must be available upon request.

[4] Correct actual emissions for currently applicable rule or permit requirements, and periods of non-compliance. These corrections, as well as any MSS previously demonstrated under 30 TAC 101, should be explained in the Table 2F supplement.

[5] If projected actual emission is used it must be noted in the next column and the basis for the projection identified in the Table 2F supplement.

[6] Proposed Emissions (column B) minus Baseline Emissions (column A).

[7] Correction made to emission increase for what portion could have been accommodated during the baseline period. The justification and basis for this estimate must be provided in the Table 2F supplement.

[8] Obtained by subtracting the correction from the difference. Must be a positive number.

[9] Sum all values for this page.

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**CO**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
	Affected or Modified Facilities [2]		**Permit No.**	**Actual Emissions [3]**	**Baseline Emissions [4]**	**Proposed Emissions [5]**	**Projected Actual Emissions**	**Difference (B-A) [6]**	**Correction [7] (Could Have Accomodated)**	**Project Increase [8]**
	FIN	**EPN [2]**								
1	CT-1A	CT-1A	TBD	NA	NA	31.18	NA	NA	NA	31.18
2	CT-2A	CT-2A	TBD	NA	NA	31.18	NA	NA	NA	31.18
3	CT-3A	CT-3A	TBD	NA	NA	31.18	NA	NA	NA	31.18
4	CT-4A	CT-4A	TBD	NA	NA	31.18	NA	NA	NA	31.18
5	CT-5A	CT-5A	TBD	NA	NA	31.18	NA	NA	NA	31.18
6	CT-6A	CT-6A	TBD	NA	NA	31.18	NA	NA	NA	31.18
7	CT-7A	CT-7A	TBD	NA	NA	31.18	NA	NA	NA	31.18
8	CT-8A	CT-8A	TBD	NA	NA	31.18	NA	NA	NA	31.18
9	CT-9A	CT-9A	TBD	NA	NA	31.18	NA	NA	NA	31.18
10	CT-10A	CT-10A	TBD	NA	NA	31.18	NA	NA	NA	31.18
11	CT-11A	CT-11A	TBD	NA	NA	31.18	NA	NA	NA	31.18
12	CT-12A	CT-12A	TBD	NA	NA	31.18	NA	NA	NA	31.18
13	CT-13A	CT-13A	TBD	NA	NA	31.18	NA	NA	NA	31.18
14	CT-14A	CT-14A	TBD	NA	NA	31.18	NA	NA	NA	31.18
15	CT-15A	CT-15A	TBD	NA	NA	31.18	NA	NA	NA	31.18
16	CT-16A	CT-16A	TBD	NA	NA	31.18	NA	NA	NA	31.18
17	CT-17A	CT-17A	TBD	NA	NA	31.18	NA	NA	NA	31.18
18	CT-18A	CT-18A	TBD	NA	NA	31.18	NA	NA	NA	31.18
19	CT-19A	CT-19A	TBD	NA	NA	31.18	NA	NA	NA	31.18
20	CT-20A	CT-20A	TBD	NA	NA	31.18	NA	NA	NA	31.18

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**CO**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
	Affected or Modified Facilities [2]		**Permit No.**	**Actual Emissions [3]**	**Baseline Emissions [4]**	**Proposed Emissions [5]**	**Projected Actual Emissions**	**Difference (B-A) [6]**	**Correction [7] (Could Have Accomodated)**	**Project Increase [8]**
	FIN	**EPN [2]**								
21	CT-21A	CT-21A	TBD	NA	NA	31.18	NA	NA	NA	31.18
22	CT-1B	CT-1B	TBD	NA	NA	368.06	NA	NA	NA	368.06
23	CT-2B	CT-2B	TBD	NA	NA	368.06	NA	NA	NA	368.06
24	CT-3B	CT-3B	TBD	NA	NA	368.06	NA	NA	NA	368.06
25	CT-4B	CT-4B	TBD	NA	NA	368.06	NA	NA	NA	368.06
26	CT-5B	CT-5B	TBD	NA	NA	368.06	NA	NA	NA	368.06
27	CT-6B	CT-6B	TBD	NA	NA	368.06	NA	NA	NA	368.06
28	CT-7B	CT-7B	TBD	NA	NA	368.06	NA	NA	NA	368.06
29	CT-8B	CT-8B	TBD	NA	NA	368.06	NA	NA	NA	368.06
30	CT-9B	CT-9B	TBD	NA	NA	368.06	NA	NA	NA	368.06
31	CT-10B	CT-10B	TBD	NA	NA	368.06	NA	NA	NA	368.06
32	CT-11B	CT-11B	TBD	NA	NA	368.06	NA	NA	NA	368.06
33	CT-12B	CT-12B	TBD	NA	NA	368.06	NA	NA	NA	368.06
34	CT-13B	CT-13B	TBD	NA	NA	368.06	NA	NA	NA	368.06
35	CT-14B	CT-14B	TBD	NA	NA	368.06	NA	NA	NA	368.06
36	DPHEAT1	DPHEAT1	TBD	NA	NA	1.42	NA	NA	NA	1.42
37	DPHEAT2	DPHEAT2	TBD	NA	NA	1.42	NA	NA	NA	1.42
38	DPHEAT3	DPHEAT3	TBD	NA	NA	1.42	NA	NA	NA	1.42
39	DPHEAT4	DPHEAT4	TBD	NA	NA	1.42	NA	NA	NA	1.42
40	DPHEAT5	DPHEAT5	TBD	NA	NA	1.42	NA	NA	NA	1.42

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**CO**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
	Affected or Modified Facilities [2]		Permit No.	Actual Emissions [3]	Baseline Emissions [4]	Proposed Emissions [5]	Projected Actual Emissions	Difference (B-A) [6]	Correction [7] (Could Have Accomodated)	Project Increase [8]
	FIN	EPN [2]								
41	DPHEAT6	DPHEAT6	TBD	NA	NA	1.80	NA	NA	NA	1.80
42	DPHEAT7	DPHEAT7	TBD	NA	NA	1.80	NA	NA	NA	1.80
43	DPHEAT8	DPHEAT8	TBD	NA	NA	1.80	NA	NA	NA	1.80
44	DPHEAT9	DPHEAT9	TBD	NA	NA	1.80	NA	NA	NA	1.80
45	DPHEAT10	DPHEAT10	TBD	NA	NA	1.80	NA	NA	NA	1.80
46	DPHEAT11	DPHEAT11	TBD	NA	NA	1.80	NA	NA	NA	1.80
47	DPHEAT12	DPHEAT12	TBD	NA	NA	1.80	NA	NA	NA	1.80
48	DPHEAT13	DPHEAT13	TBD	NA	NA	1.80	NA	NA	NA	1.80
49	DPHEAT14	DPHEAT14	TBD	NA	NA	1.80	NA	NA	NA	1.80
50	DPHEAT15	DPHEAT15	TBD	NA	NA	1.80	NA	NA	NA	1.80
51	DPHEAT16	DPHEAT16	TBD	NA	NA	1.80	NA	NA	NA	1.80
52	DPHEAT17	DPHEAT17	TBD	NA	NA	1.80	NA	NA	NA	1.80
53	DPHEAT18	DPHEAT18	TBD	NA	NA	1.80	NA	NA	NA	1.80
54	DPHEAT19	DPHEAT19	TBD	NA	NA	1.80	NA	NA	NA	1.80
55	FPUMP1	FPUMP1	TBD	NA	NA	0.01	NA	NA	NA	0.01
56	FPUMP2	FPUMP2	TBD	NA	NA	0.01	NA	NA	NA	0.01
57	EGEN1	EGEN1	TBD	NA	NA	0.26	NA	NA	NA	0.26
58	EGEN2	EGEN2	TBD	NA	NA	0.26	NA	NA	NA	0.26
59	EGEN3	EGEN3	TBD	NA	NA	0.26	NA	NA	NA	0.26
60	EGEN4	EGEN4	TBD	NA	NA	0.26	NA	NA	NA	0.26

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**CO**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
Affected or Modified Facilities [2]			**Permit No.**	**Actual Emissions [3]**	**Baseline Emissions [4]**	**Proposed Emissions [5]**	**Projected Actual Emissions**	**Difference (B-A) [6]**	**Correction [7] (Could Have Accomodated)**	**Project Increase [8]**
	FIN	**EPN [2]**								
61	EGEN5	EGEN5	TBD	NA	NA	0.26	NA	NA	NA	0.26
62	EGEN6	EGEN6	TBD	NA	NA	0.26	NA	NA	NA	0.26
63	EGEN7	EGEN7	TBD	NA	NA	0.26	NA	NA	NA	0.26
64	EGEN8	EGEN8	TBD	NA	NA	0.26	NA	NA	NA	0.26
65	EGEN9	EGEN9	TBD	NA	NA	0.26	NA	NA	NA	0.26
66	EGEN10	EGEN10	TBD	NA	NA	0.26	NA	NA	NA	0.26
67	EGEN11	EGEN11	TBD	NA	NA	0.26	NA	NA	NA	0.26
68	EGEN12	EGEN12	TBD	NA	NA	0.26	NA	NA	NA	0.26
69	EGEN13	EGEN13	TBD	NA	NA	0.26	NA	NA	NA	0.26
70	EGEN14	EGEN14	TBD	NA	NA	0.26	NA	NA	NA	0.26
71	EGEN15	EGEN15	TBD	NA	NA	0.26	NA	NA	NA	0.26
72	ENGINE-1	ENGINE-1	TBD	NA	NA	55.64	NA	NA	NA	55.64
73	ENGINE-2	ENGINE-2	TBD	NA	NA	55.64	NA	NA	NA	55.64
74	MSSFUG	MSSFUG	TBD	NA	NA	0.00	NA	NA	NA	0.00
Summary of Contemporaneous Changes								**Total**	**0.00**	**5,955.12**

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**CO**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
Affected or Modified Facilities [2]			**Permit No.**	**Actual Emissions [3]**	**Baseline Emissions [4]**	**Proposed Emissions [5]**	**Projected Actual Emissions**	**Difference (B-A) [6]**	**Correction [7] (Could Have Accomodated)**	**Project Increase [8]**
	FIN	**EPN [2]**								
Explanation (Table 2F Supplement):										

[1] Individual Table 2F's should be used to summarize the project emission increase for each criteria pollutant.

[2] Emission Point Number as designated in NSR Permit or Emissions Inventory.

[3] All records and calculations for these values must be available upon request.

[4] Correct actual emissions for currently applicable rule or permit requirements, and periods of non-compliance. These corrections, as well as any MSS previously demonstrated under 30 TAC 101, should be explained in the Table 2F supplement.

[5] If projected actual emission is used it must be noted in the next column and the basis for the projection identified in the Table 2F supplement.

[6] Proposed Emissions (column B) minus Baseline Emissions (column A).

[7] Correction made to emission increase for what portion could have been accommodated during the baseline period. The justification and basis for this estimate must be provided in the Table 2F supplement.

[8] Obtained by subtracting the correction from the difference. Must be a positive number.

[9] Sum all values for this page.

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**PM**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
	Affected or Modified Facilities [2]		**Permit No.**	**Actual Emissions [3]**	**Baseline Emissions [4]**	**Proposed Emissions [5]**	**Projected Actual Emissions**	**Difference (B-A) [6]**	**Correction [7] (Could Have Accomodated)**	**Project Increase [8]**
	FIN	**EPN [2]**								
1	CO-1	CO-1	TBD	NA	NA	0.52	NA	NA	NA	0.52
2	CO-2	CO-2	TBD	NA	NA	0.52	NA	NA	NA	0.52
3	CO-3	CO-3	TBD	NA	NA	0.52	NA	NA	NA	0.52
4	CO-4	CO-4	TBD	NA	NA	0.52	NA	NA	NA	0.52
5	CO-5	CO-5	TBD	NA	NA	0.52	NA	NA	NA	0.52
6	CO-6	CO-6	TBD	NA	NA	0.36	NA	NA	NA	0.36
7	CO-7	CO-7	TBD	NA	NA	0.36	NA	NA	NA	0.36
8	CO-8	CO-8	TBD	NA	NA	0.36	NA	NA	NA	0.36
9	CO-9	CO-9	TBD	NA	NA	0.36	NA	NA	NA	0.36
10	CO-10	CO-10	TBD	NA	NA	0.36	NA	NA	NA	0.36
11	CO-11	CO-11	TBD	NA	NA	0.36	NA	NA	NA	0.36
12	CO-12	CO-12	TBD	NA	NA	0.36	NA	NA	NA	0.36
13	CO-13	CO-13	TBD	NA	NA	0.36	NA	NA	NA	0.36
14	CO-14	CO-14	TBD	NA	NA	0.36	NA	NA	NA	0.36
15	CO-15	CO-15	TBD	NA	NA	0.36	NA	NA	NA	0.36
16	CO-16	CO-16	TBD	NA	NA	0.36	NA	NA	NA	0.36
17	CO-17	CO-17	TBD	NA	NA	0.36	NA	NA	NA	0.36
18	CO-18	CO-18	TBD	NA	NA	0.36	NA	NA	NA	0.36
19	CO-19	CO-19	TBD	NA	NA	0.36	NA	NA	NA	0.36
20	CT-1A	CT-1A	TBD	NA	NA	14.25	NA	NA	NA	14.25

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**PM**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
	Affected or Modified Facilities [2]		Permit No.	Actual Emissions [3]	Baseline Emissions [4]	Proposed Emissions [5]	Projected Actual Emissions	Difference (B-A) [6]	Correction [7] (Could Have Accomodated)	Project Increase [8]
	FIN	EPN [2]								
21	CT-2A	CT-2A	TBD	NA	NA	14.25	NA	NA	NA	14.25
22	CT-3A	CT-3A	TBD	NA	NA	14.25	NA	NA	NA	14.25
23	CT-4A	CT-4A	TBD	NA	NA	14.25	NA	NA	NA	14.25
24	CT-5A	CT-5A	TBD	NA	NA	14.25	NA	NA	NA	14.25
25	CT-6A	CT-6A	TBD	NA	NA	14.25	NA	NA	NA	14.25
26	CT-7A	CT-7A	TBD	NA	NA	14.25	NA	NA	NA	14.25
27	CT-8A	CT-8A	TBD	NA	NA	14.25	NA	NA	NA	14.25
28	CT-9A	CT-9A	TBD	NA	NA	14.25	NA	NA	NA	14.25
29	CT-10A	CT-10A	TBD	NA	NA	14.25	NA	NA	NA	14.25
30	CT-11A	CT-11A	TBD	NA	NA	14.25	NA	NA	NA	14.25
31	CT-12A	CT-12A	TBD	NA	NA	14.25	NA	NA	NA	14.25
32	CT-13A	CT-13A	TBD	NA	NA	14.25	NA	NA	NA	14.25
33	CT-14A	CT-14A	TBD	NA	NA	14.25	NA	NA	NA	14.25
34	CT-15A	CT-15A	TBD	NA	NA	14.25	NA	NA	NA	14.25
35	CT-16A	CT-16A	TBD	NA	NA	14.25	NA	NA	NA	14.25
36	CT-17A	CT-17A	TBD	NA	NA	14.25	NA	NA	NA	14.25
37	CT-18A	CT-18A	TBD	NA	NA	14.25	NA	NA	NA	14.25
38	CT-19A	CT-19A	TBD	NA	NA	14.25	NA	NA	NA	14.25
39	CT-20A	CT-20A	TBD	NA	NA	14.25	NA	NA	NA	14.25
40	CT-21A	CT-21A	TBD	NA	NA	14.25	NA	NA	NA	14.25

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**PM**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
	Affected or Modified Facilities [2]		Permit No.	Actual Emissions [3]	Baseline Emissions [4]	Proposed Emissions [5]	Projected Actual Emissions	Difference (B-A) [6]	Correction [7] (Could Have Accomodated)	Project Increase [8]
	FIN	EPN [2]								
41	CT-1B	CT-1B	TBD	NA	NA	48.63	NA	NA	NA	48.63
42	CT-2B	CT-2B	TBD	NA	NA	48.63	NA	NA	NA	48.63
43	CT-3B	CT-3B	TBD	NA	NA	48.63	NA	NA	NA	48.63
44	CT-4B	CT-4B	TBD	NA	NA	48.63	NA	NA	NA	48.63
45	CT-5B	CT-5B	TBD	NA	NA	48.63	NA	NA	NA	48.63
46	CT-6B	CT-6B	TBD	NA	NA	48.63	NA	NA	NA	48.63
47	CT-7B	CT-7B	TBD	NA	NA	48.63	NA	NA	NA	48.63
48	CT-8B	CT-8B	TBD	NA	NA	48.63	NA	NA	NA	48.63
49	CT-9B	CT-9B	TBD	NA	NA	48.63	NA	NA	NA	48.63
50	CT-10B	CT-10B	TBD	NA	NA	48.63	NA	NA	NA	48.63
51	CT-11B	CT-11B	TBD	NA	NA	48.63	NA	NA	NA	48.63
52	CT-12B	CT-12B	TBD	NA	NA	48.63	NA	NA	NA	48.63
53	CT-13B	CT-13B	TBD	NA	NA	48.63	NA	NA	NA	48.63
54	CT-14B	CT-14B	TBD	NA	NA	48.63	NA	NA	NA	48.63
55	DPHEAT1	DPHEAT1	TBD	NA	NA	0.29	NA	NA	NA	0.29
56	DPHEAT2	DPHEAT2	TBD	NA	NA	0.29	NA	NA	NA	0.29
57	DPHEAT3	DPHEAT3	TBD	NA	NA	0.29	NA	NA	NA	0.29
58	DPHEAT4	DPHEAT4	TBD	NA	NA	0.29	NA	NA	NA	0.29
59	DPHEAT5	DPHEAT5	TBD	NA	NA	0.29	NA	NA	NA	0.29
60	DPHEAT6	DPHEAT6	TBD	NA	NA	0.36	NA	NA	NA	0.36

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**PM**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
	Affected or Modified Facilities [2]		Permit No.	Actual Emissions [3]	Baseline Emissions [4]	Proposed Emissions [5]	Projected Actual Emissions	Difference (B-A) [6]	Correction [7] (Could Have Accomodated)	Project Increase [8]
	FIN	EPN [2]								
61	DPHEAT7	DPHEAT7	TBD	NA	NA	0.36	NA	NA	NA	0.36
62	DPHEAT8	DPHEAT8	TBD	NA	NA	0.36	NA	NA	NA	0.36
63	DPHEAT9	DPHEAT9	TBD	NA	NA	0.36	NA	NA	NA	0.36
64	DPHEAT10	DPHEAT10	TBD	NA	NA	0.36	NA	NA	NA	0.36
65	DPHEAT11	DPHEAT11	TBD	NA	NA	0.36	NA	NA	NA	0.36
66	DPHEAT12	DPHEAT12	TBD	NA	NA	0.36	NA	NA	NA	0.36
67	DPHEAT13	DPHEAT13	TBD	NA	NA	0.36	NA	NA	NA	0.36
68	DPHEAT14	DPHEAT14	TBD	NA	NA	0.36	NA	NA	NA	0.36
69	DPHEAT15	DPHEAT15	TBD	NA	NA	0.36	NA	NA	NA	0.36
70	DPHEAT16	DPHEAT16	TBD	NA	NA	0.36	NA	NA	NA	0.36
71	DPHEAT17	DPHEAT17	TBD	NA	NA	0.36	NA	NA	NA	0.36
72	DPHEAT18	DPHEAT18	TBD	NA	NA	0.36	NA	NA	NA	0.36
73	DPHEAT19	DPHEAT19	TBD	NA	NA	0.36	NA	NA	NA	0.36
74	OILVENT1	OILVENT1	TBD	NA	NA	0.08	NA	NA	NA	0.08
75	OILVENT2	OILVENT2	TBD	NA	NA	0.08	NA	NA	NA	0.08
76	OILVENT3	OILVENT3	TBD	NA	NA	0.08	NA	NA	NA	0.08
77	OILVENT4	OILVENT4	TBD	NA	NA	0.08	NA	NA	NA	0.08
78	OILVENT5	OILVENT5	TBD	NA	NA	0.08	NA	NA	NA	0.08
79	OILVENT6	OILVENT6	TBD	NA	NA	0.08	NA	NA	NA	0.08
80	OILVENT7	OILVENT7	TBD	NA	NA	0.08	NA	NA	NA	0.08

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**PM**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
	Affected or Modified Facilities [2]		Permit No.	Actual Emissions [3]	Baseline Emissions [4]	Proposed Emissions [5]	Projected Actual Emissions	Difference (B-A) [6]	Correction [7] (Could Have Accomodated)	Project Increase [8]
	FIN	EPN [2]								
81	OILVENT8	OILVENT8	TBD	NA	NA	0.08	NA	NA	NA	0.08
82	OILVENT9	OILVENT9	TBD	NA	NA	0.08	NA	NA	NA	0.08
83	OILVENT10	OILVENT10	TBD	NA	NA	0.08	NA	NA	NA	0.08
84	OILVENT11	OILVENT11	TBD	NA	NA	0.08	NA	NA	NA	0.08
85	OILVENT12	OILVENT12	TBD	NA	NA	0.08	NA	NA	NA	0.08
86	OILVENT13	OILVENT13	TBD	NA	NA	0.08	NA	NA	NA	0.08
87	OILVENT14	OILVENT14	TBD	NA	NA	0.08	NA	NA	NA	0.08
88	OILVENT15	OILVENT15	TBD	NA	NA	0.08	NA	NA	NA	0.08
89	OILVENT16	OILVENT16	TBD	NA	NA	0.08	NA	NA	NA	0.08
90	OILVENT17	OILVENT17	TBD	NA	NA	0.08	NA	NA	NA	0.08
91	OILVENT18	OILVENT18	TBD	NA	NA	0.08	NA	NA	NA	0.08
92	OILVENT19	OILVENT19	TBD	NA	NA	0.08	NA	NA	NA	0.08
93	OILVENT20	OILVENT20	TBD	NA	NA	0.08	NA	NA	NA	0.08
94	OILVENT21	OILVENT21	TBD	NA	NA	0.08	NA	NA	NA	0.08
95	OILVENT22	OILVENT22	TBD	NA	NA	0.08	NA	NA	NA	0.08
96	OILVENT23	OILVENT23	TBD	NA	NA	0.08	NA	NA	NA	0.08
97	OILVENT24	OILVENT24	TBD	NA	NA	0.08	NA	NA	NA	0.08
98	OILVENT25	OILVENT25	TBD	NA	NA	0.08	NA	NA	NA	0.08
99	OILVENT26	OILVENT26	TBD	NA	NA	0.08	NA	NA	NA	0.08
100	OILVENT27	OILVENT27	TBD	NA	NA	0.08	NA	NA	NA	0.08

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**PM**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
	Affected or Modified Facilities [2]		**Permit No.**	**Actual Emissions [3]**	**Baseline Emissions [4]**	**Proposed Emissions [5]**	**Projected Actual Emissions**	**Difference (B-A) [6]**	**Correction [7] (Could Have Accomodated)**	**Project Increase [8]**
	FIN	**EPN [2]**								
101	OILVENT28	OILVENT28	TBD	NA	NA	0.08	NA	NA	NA	0.08
102	OILVENT29	OILVENT29	TBD	NA	NA	0.08	NA	NA	NA	0.08
103	OILVENT30	OILVENT30	TBD	NA	NA	0.08	NA	NA	NA	0.08
104	OILVENT31	OILVENT31	TBD	NA	NA	0.08	NA	NA	NA	0.08
105	OILVENT32	OILVENT32	TBD	NA	NA	0.08	NA	NA	NA	0.08
106	OILVENT33	OILVENT33	TBD	NA	NA	0.08	NA	NA	NA	0.08
107	OILVENT34	OILVENT34	TBD	NA	NA	0.08	NA	NA	NA	0.08
108	OILVENT35	OILVENT35	TBD	NA	NA	0.08	NA	NA	NA	0.08
109	FPUMP1	FPUMP1	TBD	NA	NA	0.00	NA	NA	NA	0.00
110	FPUMP2	FPUMP2	TBD	NA	NA	0.00	NA	NA	NA	0.00
111	EGEN1	EGEN1	TBD	NA	NA	0.08	NA	NA	NA	0.08
112	EGEN2	EGEN2	TBD	NA	NA	0.08	NA	NA	NA	0.08
113	EGEN3	EGEN3	TBD	NA	NA	0.08	NA	NA	NA	0.08
114	EGEN4	EGEN4	TBD	NA	NA	0.08	NA	NA	NA	0.08
115	EGEN5	EGEN5	TBD	NA	NA	0.08	NA	NA	NA	0.08
116	EGEN6	EGEN6	TBD	NA	NA	0.08	NA	NA	NA	0.08
117	EGEN7	EGEN7	TBD	NA	NA	0.08	NA	NA	NA	0.08
118	EGEN8	EGEN8	TBD	NA	NA	0.08	NA	NA	NA	0.08
119	EGEN9	EGEN9	TBD	NA	NA	0.08	NA	NA	NA	0.08
120	EGEN10	EGEN10	TBD	NA	NA	0.08	NA	NA	NA	0.08

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**PM**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
Affected or Modified Facilities [2]			**Permit No.**	**Actual Emissions [3]**	**Baseline Emissions [4]**	**Proposed Emissions [5]**	**Projected Actual Emissions**	**Difference (B-A) [6]**	**Correction [7] (Could Have Accomodated)**	**Project Increase [8]**
	FIN	**EPN [2]**								
121	EGEN11	EGEN11	TBD	NA	NA	0.08	NA	NA	NA	0.08
122	EGEN12	EGEN12	TBD	NA	NA	0.08	NA	NA	NA	0.08
123	EGEN13	EGEN13	TBD	NA	NA	0.08	NA	NA	NA	0.08
124	EGEN14	EGEN14	TBD	NA	NA	0.08	NA	NA	NA	0.08
125	EGEN15	EGEN15	TBD	NA	NA	0.08	NA	NA	NA	0.08
126	ENGINE-1	ENGINE-1	TBD	NA	NA	0.32	NA	NA	NA	0.32
127	ENGINE-2	ENGINE-2	TBD	NA	NA	0.32	NA	NA	NA	0.32
128	MSSFUG	MSSFUG	TBD	NA	NA	0.00	NA	NA	NA	0.00
Summary of Contemporaneous Changes								**Total**	**0.00**	**998.82**

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**PM**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
Affected or Modified Facilities [2]			**Permit No.**	**Actual Emissions [3]**	**Baseline Emissions [4]**	**Proposed Emissions [5]**	**Projected Actual Emissions**	**Difference (B-A) [6]**	**Correction [7] (Could Have Accomodated)**	**Project Increase [8]**
	FIN	**EPN [2]**								
Explanation (Table 2F Supplement):										

[1] Individual Table 2F's should be used to summarize the project emission increase for each criteria pollutant.

[2] Emission Point Number as designated in NSR Permit or Emissions Inventory.

[3] All records and calculations for these values must be available upon request.

[4] Correct actual emissions for currently applicable rule or permit requirements, and periods of non-compliance. These corrections, as well as any MSS previously demonstrated under 30 TAC 101, should be explained in the Table 2F supplement.

[5] If projected actual emission is used it must be noted in the next column and the basis for the projection identified in the Table 2F supplement.

[6] Proposed Emissions (column B) minus Baseline Emissions (column A).

[7] Correction made to emission increase for what portion could have been accommodated during the baseline period. The justification and basis for this estimate must be provided in the Table 2F supplement.

[8] Obtained by subtracting the correction from the difference. Must be a positive number.

[9] Sum all values for this page.

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**PM10**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

						A	B			
	Affected or Modified Facilities [2]		Permit No.	Actual Emissions [3]	Baseline Emissions [4]	Proposed Emissions [5]	Projected Actual Emissions	Difference (B-A) [6]	Correction [7] (Could Have Accomodated)	Project Increase [8]
	FIN	EPN [2]								
1	CO-1	CO-1	TBD	NA	NA	0.26	NA	NA	NA	0.26
2	CO-2	CO-2	TBD	NA	NA	0.26	NA	NA	NA	0.26
3	CO-3	CO-3	TBD	NA	NA	0.26	NA	NA	NA	0.26
4	CO-4	CO-4	TBD	NA	NA	0.26	NA	NA	NA	0.26
5	CO-5	CO-5	TBD	NA	NA	0.26	NA	NA	NA	0.26
6	CO-6	CO-6	TBD	NA	NA	0.18	NA	NA	NA	0.18
7	CO-7	CO-7	TBD	NA	NA	0.18	NA	NA	NA	0.18
8	CO-8	CO-8	TBD	NA	NA	0.18	NA	NA	NA	0.18
9	CO-9	CO-9	TBD	NA	NA	0.18	NA	NA	NA	0.18
10	CO-10	CO-10	TBD	NA	NA	0.18	NA	NA	NA	0.18
11	CO-11	CO-11	TBD	NA	NA	0.18	NA	NA	NA	0.18
12	CO-12	CO-12	TBD	NA	NA	0.18	NA	NA	NA	0.18
13	CO-13	CO-13	TBD	NA	NA	0.18	NA	NA	NA	0.18
14	CO-14	CO-14	TBD	NA	NA	0.18	NA	NA	NA	0.18
15	CO-15	CO-15	TBD	NA	NA	0.18	NA	NA	NA	0.18
16	CO-16	CO-16	TBD	NA	NA	0.18	NA	NA	NA	0.18
17	CO-17	CO-17	TBD	NA	NA	0.18	NA	NA	NA	0.18
18	CO-18	CO-18	TBD	NA	NA	0.18	NA	NA	NA	0.18
19	CO-19	CO-19	TBD	NA	NA	0.18	NA	NA	NA	0.18
20	CT-1A	CT-1A	TBD	NA	NA	14.25	NA	NA	NA	14.25

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**PM10**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
	Affected or Modified Facilities [2]		**Permit No.**	**Actual Emissions [3]**	**Baseline Emissions [4]**	**Proposed Emissions [5]**	**Projected Actual Emissions**	**Difference (B-A) [6]**	**Correction [7] (Could Have Accomodated)**	**Project Increase [8]**
	FIN	**EPN [2]**								
21	CT-2A	CT-2A	TBD	NA	NA	14.25	NA	NA	NA	14.25
22	CT-3A	CT-3A	TBD	NA	NA	14.25	NA	NA	NA	14.25
23	CT-4A	CT-4A	TBD	NA	NA	14.25	NA	NA	NA	14.25
24	CT-5A	CT-5A	TBD	NA	NA	14.25	NA	NA	NA	14.25
25	CT-6A	CT-6A	TBD	NA	NA	14.25	NA	NA	NA	14.25
26	CT-7A	CT-7A	TBD	NA	NA	14.25	NA	NA	NA	14.25
27	CT-8A	CT-8A	TBD	NA	NA	14.25	NA	NA	NA	14.25
28	CT-9A	CT-9A	TBD	NA	NA	14.25	NA	NA	NA	14.25
29	CT-10A	CT-10A	TBD	NA	NA	14.25	NA	NA	NA	14.25
30	CT-11A	CT-11A	TBD	NA	NA	14.25	NA	NA	NA	14.25
31	CT-12A	CT-12A	TBD	NA	NA	14.25	NA	NA	NA	14.25
32	CT-13A	CT-13A	TBD	NA	NA	14.25	NA	NA	NA	14.25
33	CT-14A	CT-14A	TBD	NA	NA	14.25	NA	NA	NA	14.25
34	CT-15A	CT-15A	TBD	NA	NA	14.25	NA	NA	NA	14.25
35	CT-16A	CT-16A	TBD	NA	NA	14.25	NA	NA	NA	14.25
36	CT-17A	CT-17A	TBD	NA	NA	14.25	NA	NA	NA	14.25
37	CT-18A	CT-18A	TBD	NA	NA	14.25	NA	NA	NA	14.25
38	CT-19A	CT-19A	TBD	NA	NA	14.25	NA	NA	NA	14.25
39	CT-20A	CT-20A	TBD	NA	NA	14.25	NA	NA	NA	14.25
40	CT-21A	CT-21A	TBD	NA	NA	14.25	NA	NA	NA	14.25

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**PM10**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
	Affected or Modified Facilities [2]		**Permit No.**	**Actual Emissions [3]**	**Baseline Emissions [4]**	**Proposed Emissions [5]**	**Projected Actual Emissions**	**Difference (B-A) [6]**	**Correction [7] (Could Have Accomodated)**	**Project Increase [8]**
	FIN	**EPN [2]**								
41	CT-1B	CT-1B	TBD	NA	NA	48.63	NA	NA	NA	48.63
42	CT-2B	CT-2B	TBD	NA	NA	48.63	NA	NA	NA	48.63
43	CT-3B	CT-3B	TBD	NA	NA	48.63	NA	NA	NA	48.63
44	CT-4B	CT-4B	TBD	NA	NA	48.63	NA	NA	NA	48.63
45	CT-5B	CT-5B	TBD	NA	NA	48.63	NA	NA	NA	48.63
46	CT-6B	CT-6B	TBD	NA	NA	48.63	NA	NA	NA	48.63
47	CT-7B	CT-7B	TBD	NA	NA	48.63	NA	NA	NA	48.63
48	CT-8B	CT-8B	TBD	NA	NA	48.63	NA	NA	NA	48.63
49	CT-9B	CT-9B	TBD	NA	NA	48.63	NA	NA	NA	48.63
50	CT-10B	CT-10B	TBD	NA	NA	48.63	NA	NA	NA	48.63
51	CT-11B	CT-11B	TBD	NA	NA	48.63	NA	NA	NA	48.63
52	CT-12B	CT-12B	TBD	NA	NA	48.63	NA	NA	NA	48.63
53	CT-13B	CT-13B	TBD	NA	NA	48.63	NA	NA	NA	48.63
54	CT-14B	CT-14B	TBD	NA	NA	48.63	NA	NA	NA	48.63
55	DPHEAT1	DPHEAT1	TBD	NA	NA	0.29	NA	NA	NA	0.29
56	DPHEAT2	DPHEAT2	TBD	NA	NA	0.29	NA	NA	NA	0.29
57	DPHEAT3	DPHEAT3	TBD	NA	NA	0.29	NA	NA	NA	0.29
58	DPHEAT4	DPHEAT4	TBD	NA	NA	0.29	NA	NA	NA	0.29
59	DPHEAT5	DPHEAT5	TBD	NA	NA	0.29	NA	NA	NA	0.29
60	DPHEAT6	DPHEAT6	TBD	NA	NA	0.36	NA	NA	NA	0.36

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**PM10**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
	Affected or Modified Facilities [2]		Permit No.	Actual Emissions [3]	Baseline Emissions [4]	Proposed Emissions [5]	Projected Actual Emissions	Difference (B-A) [6]	Correction [7] (Could Have Accomodated)	Project Increase [8]
	FIN	EPN [2]								
61	DPHEAT7	DPHEAT7	TBD	NA	NA	0.36	NA	NA	NA	0.36
62	DPHEAT8	DPHEAT8	TBD	NA	NA	0.36	NA	NA	NA	0.36
63	DPHEAT9	DPHEAT9	TBD	NA	NA	0.36	NA	NA	NA	0.36
64	DPHEAT10	DPHEAT10	TBD	NA	NA	0.36	NA	NA	NA	0.36
65	DPHEAT11	DPHEAT11	TBD	NA	NA	0.36	NA	NA	NA	0.36
66	DPHEAT12	DPHEAT12	TBD	NA	NA	0.36	NA	NA	NA	0.36
67	DPHEAT13	DPHEAT13	TBD	NA	NA	0.36	NA	NA	NA	0.36
68	DPHEAT14	DPHEAT14	TBD	NA	NA	0.36	NA	NA	NA	0.36
69	DPHEAT15	DPHEAT15	TBD	NA	NA	0.36	NA	NA	NA	0.36
70	DPHEAT16	DPHEAT16	TBD	NA	NA	0.36	NA	NA	NA	0.36
71	DPHEAT17	DPHEAT17	TBD	NA	NA	0.36	NA	NA	NA	0.36
72	DPHEAT18	DPHEAT18	TBD	NA	NA	0.36	NA	NA	NA	0.36
73	DPHEAT19	DPHEAT19	TBD	NA	NA	0.36	NA	NA	NA	0.36
74	OILVENT1	OILVENT1	TBD	NA	NA	0.08	NA	NA	NA	0.08
75	OILVENT2	OILVENT2	TBD	NA	NA	0.08	NA	NA	NA	0.08
76	OILVENT3	OILVENT3	TBD	NA	NA	0.08	NA	NA	NA	0.08
77	OILVENT4	OILVENT4	TBD	NA	NA	0.08	NA	NA	NA	0.08
78	OILVENT5	OILVENT5	TBD	NA	NA	0.08	NA	NA	NA	0.08
79	OILVENT6	OILVENT6	TBD	NA	NA	0.08	NA	NA	NA	0.08
80	OILVENT7	OILVENT7	TBD	NA	NA	0.08	NA	NA	NA	0.08

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**PM10**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
	Affected or Modified Facilities [2]		Permit No.	Actual Emissions [3]	Baseline Emissions [4]	Proposed Emissions [5]	Projected Actual Emissions	Difference (B-A) [6]	Correction [7] (Could Have Accomodated)	Project Increase [8]
	FIN	EPN [2]								
81	OILVENT8	OILVENT8	TBD	NA	NA	0.08	NA	NA	NA	0.08
82	OILVENT9	OILVENT9	TBD	NA	NA	0.08	NA	NA	NA	0.08
83	OILVENT10	OILVENT10	TBD	NA	NA	0.08	NA	NA	NA	0.08
84	OILVENT11	OILVENT11	TBD	NA	NA	0.08	NA	NA	NA	0.08
85	OILVENT12	OILVENT12	TBD	NA	NA	0.08	NA	NA	NA	0.08
86	OILVENT13	OILVENT13	TBD	NA	NA	0.08	NA	NA	NA	0.08
87	OILVENT14	OILVENT14	TBD	NA	NA	0.08	NA	NA	NA	0.08
88	OILVENT15	OILVENT15	TBD	NA	NA	0.08	NA	NA	NA	0.08
89	OILVENT16	OILVENT16	TBD	NA	NA	0.08	NA	NA	NA	0.08
90	OILVENT17	OILVENT17	TBD	NA	NA	0.08	NA	NA	NA	0.08
91	OILVENT18	OILVENT18	TBD	NA	NA	0.08	NA	NA	NA	0.08
92	OILVENT19	OILVENT19	TBD	NA	NA	0.08	NA	NA	NA	0.08
93	OILVENT20	OILVENT20	TBD	NA	NA	0.08	NA	NA	NA	0.08
94	OILVENT21	OILVENT21	TBD	NA	NA	0.08	NA	NA	NA	0.08
95	OILVENT22	OILVENT22	TBD	NA	NA	0.08	NA	NA	NA	0.08
96	OILVENT23	OILVENT23	TBD	NA	NA	0.08	NA	NA	NA	0.08
97	OILVENT24	OILVENT24	TBD	NA	NA	0.08	NA	NA	NA	0.08
98	OILVENT25	OILVENT25	TBD	NA	NA	0.08	NA	NA	NA	0.08
99	OILVENT26	OILVENT26	TBD	NA	NA	0.08	NA	NA	NA	0.08
100	OILVENT27	OILVENT27	TBD	NA	NA	0.08	NA	NA	NA	0.08

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**PM10**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
	Affected or Modified Facilities [2]		Permit No.	Actual Emissions [3]	Baseline Emissions [4]	Proposed Emissions [5]	Projected Actual Emissions	Difference (B-A) [6]	Correction [7] (Could Have Accomodated)	Project Increase [8]
	FIN	EPN [2]								
101	OILVENT28	OILVENT28	TBD	NA	NA	0.08	NA	NA	NA	0.08
102	OILVENT29	OILVENT29	TBD	NA	NA	0.08	NA	NA	NA	0.08
103	OILVENT30	OILVENT30	TBD	NA	NA	0.08	NA	NA	NA	0.08
104	OILVENT31	OILVENT31	TBD	NA	NA	0.08	NA	NA	NA	0.08
105	OILVENT32	OILVENT32	TBD	NA	NA	0.08	NA	NA	NA	0.08
106	OILVENT33	OILVENT33	TBD	NA	NA	0.08	NA	NA	NA	0.08
107	OILVENT34	OILVENT34	TBD	NA	NA	0.08	NA	NA	NA	0.08
108	OILVENT35	OILVENT35	TBD	NA	NA	0.08	NA	NA	NA	0.08
109	FPUMP1	FPUMP1	TBD	NA	NA	0.00	NA	NA	NA	0.00
110	FPUMP2	FPUMP2	TBD	NA	NA	0.00	NA	NA	NA	0.00
111	EGEN1	EGEN1	TBD	NA	NA	0.08	NA	NA	NA	0.08
112	EGEN2	EGEN2	TBD	NA	NA	0.08	NA	NA	NA	0.08
113	EGEN3	EGEN3	TBD	NA	NA	0.08	NA	NA	NA	0.08
114	EGEN4	EGEN4	TBD	NA	NA	0.08	NA	NA	NA	0.08
115	EGEN5	EGEN5	TBD	NA	NA	0.08	NA	NA	NA	0.08
116	EGEN6	EGEN6	TBD	NA	NA	0.08	NA	NA	NA	0.08
117	EGEN7	EGEN7	TBD	NA	NA	0.08	NA	NA	NA	0.08
118	EGEN8	EGEN8	TBD	NA	NA	0.08	NA	NA	NA	0.08
119	EGEN9	EGEN9	TBD	NA	NA	0.08	NA	NA	NA	0.08
120	EGEN10	EGEN10	TBD	NA	NA	0.08	NA	NA	NA	0.08

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**PM10**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
	Affected or Modified Facilities [2]		**Permit No.**	**Actual Emissions [3]**	**Baseline Emissions [4]**	**Proposed Emissions [5]**	**Projected Actual Emissions**	**Difference (B-A) [6]**	**Correction [7] (Could Have Accomodated)**	**Project Increase [8]**
	FIN	**EPN [2]**								
121	EGEN11	EGEN11	TBD	NA	NA	0.08	NA	NA	NA	0.08
122	EGEN12	EGEN12	TBD	NA	NA	0.08	NA	NA	NA	0.08
123	EGEN13	EGEN13	TBD	NA	NA	0.08	NA	NA	NA	0.08
124	EGEN14	EGEN14	TBD	NA	NA	0.08	NA	NA	NA	0.08
125	EGEN15	EGEN15	TBD	NA	NA	0.08	NA	NA	NA	0.08
126	ENGINE-1	ENGINE-1	TBD	NA	NA	0.32	NA	NA	NA	0.32
127	ENGINE-2	ENGINE-2	TBD	NA	NA	0.32	NA	NA	NA	0.32
128	MSSFUG	MSSFUG	TBD	NA	NA	0.00	NA	NA	NA	0.00
Summary of Contemporaneous Changes								**Total**	**0.00**	**995.03**

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**PM10**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
Affected or Modified Facilities [2]			**Permit No.**	**Actual Emissions [3]**	**Baseline Emissions [4]**	**Proposed Emissions [5]**	**Projected Actual Emissions**	**Difference (B-A) [6]**	**Correction [7] (Could Have Accomodated)**	**Project Increase [8]**
	FIN	**EPN [2]**								
Explanation (Table 2F Supplement):										

[1] Individual Table 2F's should be used to summarize the project emission increase for each criteria pollutant.

[2] Emission Point Number as designated in NSR Permit or Emissions Inventory.

[3] All records and calculations for these values must be available upon request.

[4] Correct actual emissions for currently applicable rule or permit requirements, and periods of non-compliance. These corrections, as well as any MSS previously demonstrated under 30 TAC 101, should be explained in the Table 2F supplement.

[5] If projected actual emission is used it must be noted in the next column and the basis for the projection identified in the Table 2F supplement.

[6] Proposed Emissions (column B) minus Baseline Emissions (column A).

[7] Correction made to emission increase for what portion could have been accommodated during the baseline period. The justification and basis for this estimate must be provided in the Table 2F supplement.

[8] Obtained by subtracting the correction from the difference. Must be a positive number.

[9] Sum all values for this page.

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**PM2.5**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
	Affected or Modified Facilities [2]		**Permit No.**	**Actual Emissions [3]**	**Baseline Emissions [4]**	**Proposed Emissions [5]**	**Projected Actual Emissions**	**Difference (B-A) [6]**	**Correction [7] (Could Have Accomodated)**	**Project Increase [8]**
	FIN	**EPN [2]**								
1	CO-1	CO-1	TBD	NA	NA	0.00	NA	NA	NA	0.001
2	CO-2	CO-2	TBD	NA	NA	0.00	NA	NA	NA	0.001
3	CO-3	CO-3	TBD	NA	NA	0.00	NA	NA	NA	0.001
4	CO-4	CO-4	TBD	NA	NA	0.00	NA	NA	NA	0.001
5	CO-5	CO-5	TBD	NA	NA	0.00	NA	NA	NA	0.001
6	CO-6	CO-6	TBD	NA	NA	0.00	NA	NA	NA	0.001
7	CO-7	CO-7	TBD	NA	NA	0.00	NA	NA	NA	0.001
8	CO-8	CO-8	TBD	NA	NA	0.00	NA	NA	NA	0.001
9	CO-9	CO-9	TBD	NA	NA	0.00	NA	NA	NA	0.001
10	CO-10	CO-10	TBD	NA	NA	0.00	NA	NA	NA	0.001
11	CO-11	CO-11	TBD	NA	NA	0.00	NA	NA	NA	0.001
12	CO-12	CO-12	TBD	NA	NA	0.00	NA	NA	NA	0.001
13	CO-13	CO-13	TBD	NA	NA	0.00	NA	NA	NA	0.001
14	CO-14	CO-14	TBD	NA	NA	0.00	NA	NA	NA	0.001
15	CO-15	CO-15	TBD	NA	NA	0.00	NA	NA	NA	0.001
16	CO-16	CO-16	TBD	NA	NA	0.00	NA	NA	NA	0.001
17	CO-17	CO-17	TBD	NA	NA	0.00	NA	NA	NA	0.001
18	CO-18	CO-18	TBD	NA	NA	0.00	NA	NA	NA	0.001
19	CO-19	CO-19	TBD	NA	NA	0.00	NA	NA	NA	0.001
20	CT-1A	CT-1A	TBD	NA	NA	14.25	NA	NA	NA	14.25

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**PM2.5**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
	Affected or Modified Facilities [2]		**Permit No.**	**Actual Emissions [3]**	**Baseline Emissions [4]**	**Proposed Emissions [5]**	**Projected Actual Emissions**	**Difference (B-A) [6]**	**Correction [7] (Could Have Accomodated)**	**Project Increase [8]**
	FIN	**EPN [2]**								
21	CT-2A	CT-2A	TBD	NA	NA	14.25	NA	NA	NA	14.25
22	CT-3A	CT-3A	TBD	NA	NA	14.25	NA	NA	NA	14.25
23	CT-4A	CT-4A	TBD	NA	NA	14.25	NA	NA	NA	14.25
24	CT-5A	CT-5A	TBD	NA	NA	14.25	NA	NA	NA	14.25
25	CT-6A	CT-6A	TBD	NA	NA	14.25	NA	NA	NA	14.25
26	CT-7A	CT-7A	TBD	NA	NA	14.25	NA	NA	NA	14.25
27	CT-8A	CT-8A	TBD	NA	NA	14.25	NA	NA	NA	14.25
28	CT-9A	CT-9A	TBD	NA	NA	14.25	NA	NA	NA	14.25
29	CT-10A	CT-10A	TBD	NA	NA	14.25	NA	NA	NA	14.25
30	CT-11A	CT-11A	TBD	NA	NA	14.25	NA	NA	NA	14.25
31	CT-12A	CT-12A	TBD	NA	NA	14.25	NA	NA	NA	14.25
32	CT-13A	CT-13A	TBD	NA	NA	14.25	NA	NA	NA	14.25
33	CT-14A	CT-14A	TBD	NA	NA	14.25	NA	NA	NA	14.25
34	CT-15A	CT-15A	TBD	NA	NA	14.25	NA	NA	NA	14.25
35	CT-16A	CT-16A	TBD	NA	NA	14.25	NA	NA	NA	14.25
36	CT-17A	CT-17A	TBD	NA	NA	14.25	NA	NA	NA	14.25
37	CT-18A	CT-18A	TBD	NA	NA	14.25	NA	NA	NA	14.25
38	CT-19A	CT-19A	TBD	NA	NA	14.25	NA	NA	NA	14.25
39	CT-20A	CT-20A	TBD	NA	NA	14.25	NA	NA	NA	14.25
40	CT-21A	CT-21A	TBD	NA	NA	14.25	NA	NA	NA	14.25

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**PM2.5**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
	Affected or Modified Facilities [2]		**Permit No.**	**Actual Emissions [3]**	**Baseline Emissions [4]**	**Proposed Emissions [5]**	**Projected Actual Emissions**	**Difference (B-A) [6]**	**Correction [7] (Could Have Accomodated)**	**Project Increase [8]**
	FIN	**EPN [2]**								
41	CT-1B	CT-1B	TBD	NA	NA	48.63	NA	NA	NA	48.63
42	CT-2B	CT-2B	TBD	NA	NA	48.63	NA	NA	NA	48.63
43	CT-3B	CT-3B	TBD	NA	NA	48.63	NA	NA	NA	48.63
44	CT-4B	CT-4B	TBD	NA	NA	48.63	NA	NA	NA	48.63
45	CT-5B	CT-5B	TBD	NA	NA	48.63	NA	NA	NA	48.63
46	CT-6B	CT-6B	TBD	NA	NA	48.63	NA	NA	NA	48.63
47	CT-7B	CT-7B	TBD	NA	NA	48.63	NA	NA	NA	48.63
48	CT-8B	CT-8B	TBD	NA	NA	48.63	NA	NA	NA	48.63
49	CT-9B	CT-9B	TBD	NA	NA	48.63	NA	NA	NA	48.63
50	CT-10B	CT-10B	TBD	NA	NA	48.63	NA	NA	NA	48.63
51	CT-11B	CT-11B	TBD	NA	NA	48.63	NA	NA	NA	48.63
52	CT-12B	CT-12B	TBD	NA	NA	48.63	NA	NA	NA	48.63
53	CT-13B	CT-13B	TBD	NA	NA	48.63	NA	NA	NA	48.63
54	CT-14B	CT-14B	TBD	NA	NA	48.63	NA	NA	NA	48.63
55	DPHEAT1	DPHEAT1	TBD	NA	NA	0.29	NA	NA	NA	0.29
56	DPHEAT2	DPHEAT2	TBD	NA	NA	0.29	NA	NA	NA	0.29
57	DPHEAT3	DPHEAT3	TBD	NA	NA	0.29	NA	NA	NA	0.29
58	DPHEAT4	DPHEAT4	TBD	NA	NA	0.29	NA	NA	NA	0.29
59	DPHEAT5	DPHEAT5	TBD	NA	NA	0.29	NA	NA	NA	0.29
60	DPHEAT6	DPHEAT6	TBD	NA	NA	0.36	NA	NA	NA	0.36

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**PM2.5**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
	Affected or Modified Facilities [2]		Permit No.	Actual Emissions [3]	Baseline Emissions [4]	Proposed Emissions [5]	Projected Actual Emissions	Difference (B-A) [6]	Correction [7] (Could Have Accomodated)	Project Increase [8]
	FIN	EPN [2]								
61	DPHEAT7	DPHEAT7	TBD	NA	NA	0.36	NA	NA	NA	0.36
62	DPHEAT8	DPHEAT8	TBD	NA	NA	0.36	NA	NA	NA	0.36
63	DPHEAT9	DPHEAT9	TBD	NA	NA	0.36	NA	NA	NA	0.36
64	DPHEAT10	DPHEAT10	TBD	NA	NA	0.36	NA	NA	NA	0.36
65	DPHEAT11	DPHEAT11	TBD	NA	NA	0.36	NA	NA	NA	0.36
66	DPHEAT12	DPHEAT12	TBD	NA	NA	0.36	NA	NA	NA	0.36
67	DPHEAT13	DPHEAT13	TBD	NA	NA	0.36	NA	NA	NA	0.36
68	DPHEAT14	DPHEAT14	TBD	NA	NA	0.36	NA	NA	NA	0.36
69	DPHEAT15	DPHEAT15	TBD	NA	NA	0.36	NA	NA	NA	0.36
70	DPHEAT16	DPHEAT16	TBD	NA	NA	0.36	NA	NA	NA	0.36
71	DPHEAT17	DPHEAT17	TBD	NA	NA	0.36	NA	NA	NA	0.36
72	DPHEAT18	DPHEAT18	TBD	NA	NA	0.36	NA	NA	NA	0.36
73	DPHEAT19	DPHEAT19	TBD	NA	NA	0.36	NA	NA	NA	0.36
74	OILVENT1	OILVENT1	TBD	NA	NA	0.08	NA	NA	NA	0.08
75	OILVENT2	OILVENT2	TBD	NA	NA	0.08	NA	NA	NA	0.08
76	OILVENT3	OILVENT3	TBD	NA	NA	0.08	NA	NA	NA	0.08
77	OILVENT4	OILVENT4	TBD	NA	NA	0.08	NA	NA	NA	0.08
78	OILVENT5	OILVENT5	TBD	NA	NA	0.08	NA	NA	NA	0.08
79	OILVENT6	OILVENT6	TBD	NA	NA	0.08	NA	NA	NA	0.08
80	OILVENT7	OILVENT7	TBD	NA	NA	0.08	NA	NA	NA	0.08

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**PM2.5**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
	Affected or Modified Facilities [2]		Permit No.	Actual Emissions [3]	Baseline Emissions [4]	Proposed Emissions [5]	Projected Actual Emissions	Difference (B-A) [6]	Correction [7] (Could Have Accomodated)	Project Increase [8]
	FIN	EPN [2]								
81	OILVENT8	OILVENT8	TBD	NA	NA	0.08	NA	NA	NA	0.08
82	OILVENT9	OILVENT9	TBD	NA	NA	0.08	NA	NA	NA	0.08
83	OILVENT10	OILVENT10	TBD	NA	NA	0.08	NA	NA	NA	0.08
84	OILVENT11	OILVENT11	TBD	NA	NA	0.08	NA	NA	NA	0.08
85	OILVENT12	OILVENT12	TBD	NA	NA	0.08	NA	NA	NA	0.08
86	OILVENT13	OILVENT13	TBD	NA	NA	0.08	NA	NA	NA	0.08
87	OILVENT14	OILVENT14	TBD	NA	NA	0.08	NA	NA	NA	0.08
88	OILVENT15	OILVENT15	TBD	NA	NA	0.08	NA	NA	NA	0.08
89	OILVENT16	OILVENT16	TBD	NA	NA	0.08	NA	NA	NA	0.08
90	OILVENT17	OILVENT17	TBD	NA	NA	0.08	NA	NA	NA	0.08
91	OILVENT18	OILVENT18	TBD	NA	NA	0.08	NA	NA	NA	0.08
92	OILVENT19	OILVENT19	TBD	NA	NA	0.08	NA	NA	NA	0.08
93	OILVENT20	OILVENT20	TBD	NA	NA	0.08	NA	NA	NA	0.08
94	OILVENT21	OILVENT21	TBD	NA	NA	0.08	NA	NA	NA	0.08
95	OILVENT22	OILVENT22	TBD	NA	NA	0.08	NA	NA	NA	0.08
96	OILVENT23	OILVENT23	TBD	NA	NA	0.08	NA	NA	NA	0.08
97	OILVENT24	OILVENT24	TBD	NA	NA	0.08	NA	NA	NA	0.08
98	OILVENT25	OILVENT25	TBD	NA	NA	0.08	NA	NA	NA	0.08
99	OILVENT26	OILVENT26	TBD	NA	NA	0.08	NA	NA	NA	0.08
100	OILVENT27	OILVENT27	TBD	NA	NA	0.08	NA	NA	NA	0.08

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**PM2.5**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
	Affected or Modified Facilities [2]		**Permit No.**	**Actual Emissions [3]**	**Baseline Emissions [4]**	**Proposed Emissions [5]**	**Projected Actual Emissions**	**Difference (B-A) [6]**	**Correction [7] (Could Have Accomodated)**	**Project Increase [8]**
	FIN	**EPN [2]**								
101	OILVENT28	OILVENT28	TBD	NA	NA	0.08	NA	NA	NA	0.08
102	OILVENT29	OILVENT29	TBD	NA	NA	0.08	NA	NA	NA	0.08
103	OILVENT30	OILVENT30	TBD	NA	NA	0.08	NA	NA	NA	0.08
104	OILVENT31	OILVENT31	TBD	NA	NA	0.08	NA	NA	NA	0.08
105	OILVENT32	OILVENT32	TBD	NA	NA	0.08	NA	NA	NA	0.08
106	OILVENT33	OILVENT33	TBD	NA	NA	0.08	NA	NA	NA	0.08
107	OILVENT34	OILVENT34	TBD	NA	NA	0.08	NA	NA	NA	0.08
108	OILVENT35	OILVENT35	TBD	NA	NA	0.08	NA	NA	NA	0.08
109	FPUMP1	FPUMP1	TBD	NA	NA	0.00	NA	NA	NA	0.002
110	FPUMP2	FPUMP2	TBD	NA	NA	0.00	NA	NA	NA	0.002
111	EGEN1	EGEN1	TBD	NA	NA	0.08	NA	NA	NA	0.08
112	EGEN2	EGEN2	TBD	NA	NA	0.08	NA	NA	NA	0.08
113	EGEN3	EGEN3	TBD	NA	NA	0.08	NA	NA	NA	0.08
114	EGEN4	EGEN4	TBD	NA	NA	0.08	NA	NA	NA	0.08
115	EGEN5	EGEN5	TBD	NA	NA	0.08	NA	NA	NA	0.08
116	EGEN6	EGEN6	TBD	NA	NA	0.08	NA	NA	NA	0.08
117	EGEN7	EGEN7	TBD	NA	NA	0.08	NA	NA	NA	0.08
118	EGEN8	EGEN8	TBD	NA	NA	0.08	NA	NA	NA	0.08
119	EGEN9	EGEN9	TBD	NA	NA	0.08	NA	NA	NA	0.08
120	EGEN10	EGEN10	TBD	NA	NA	0.08	NA	NA	NA	0.08

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**PM2.5**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
	Affected or Modified Facilities [2]		**Permit No.**	**Actual Emissions [3]**	**Baseline Emissions [4]**	**Proposed Emissions [5]**	**Projected Actual Emissions**	**Difference (B-A) [6]**	**Correction [7] (Could Have Accomodated)**	**Project Increase [8]**
	FIN	**EPN [2]**								
121	EGEN11	EGEN11	TBD	NA	NA	0.08	NA	NA	NA	0.08
122	EGEN12	EGEN12	TBD	NA	NA	0.08	NA	NA	NA	0.08
123	EGEN13	EGEN13	TBD	NA	NA	0.08	NA	NA	NA	0.08
124	EGEN14	EGEN14	TBD	NA	NA	0.08	NA	NA	NA	0.08
125	EGEN15	EGEN15	TBD	NA	NA	0.08	NA	NA	NA	0.08
126	ENGINE-1	ENGINE-1	TBD	NA	NA	0.32	NA	NA	NA	0.32
127	ENGINE-2	ENGINE-2	TBD	NA	NA	0.32	NA	NA	NA	0.32
128	MSSFUG	MSSFUG	TBD	NA	NA	0.00	NA	NA	NA	0.00
Summary of Contemporaneous Changes								**Total**	**0.00**	**991.26**

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**PM2.5**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
Affected or Modified Facilities [2]			**Permit No.**	**Actual Emissions [3]**	**Baseline Emissions [4]**	**Proposed Emissions [5]**	**Projected Actual Emissions**	**Difference (B-A) [6]**	**Correction [7] (Could Have Accomodated)**	**Project Increase [8]**
	FIN	**EPN [2]**								
Explanation (Table 2F Supplement):										

[1] Individual Table 2F's should be used to summarize the project emission increase for each criteria pollutant.

[2] Emission Point Number as designated in NSR Permit or Emissions Inventory.

[3] All records and calculations for these values must be available upon request.

[4] Correct actual emissions for currently applicable rule or permit requirements, and periods of non-compliance. These corrections, as well as any MSS previously demonstrated under 30 TAC 101, should be explained in the Table 2F supplement.

[5] If projected actual emission is used it must be noted in the next column and the basis for the projection identified in the Table 2F supplement.

[6] Proposed Emissions (column B) minus Baseline Emissions (column A).

[7] Correction made to emission increase for what portion could have been accommodated during the baseline period. The justification and basis for this estimate must be provided in the Table 2F supplement.

[8] Obtained by subtracting the correction from the difference. Must be a positive number.

[9] Sum all values for this page.

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**SO2**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
	Affected or Modified Facilities [2]		**Permit No.**	**Actual Emissions [3]**	**Baseline Emissions [4]**	**Proposed Emissions [5]**	**Projected Actual Emissions**	**Difference (B-A) [6]**	**Correction [7] (Could Have Accomodated)**	**Project Increase [8]**
	FIN	**EPN [2]**								
1	CT-1A	CT-1A	TBD	NA	NA	3.24	NA	NA	NA	3.24
2	CT-2A	CT-2A	TBD	NA	NA	3.24	NA	NA	NA	3.24
3	CT-3A	CT-3A	TBD	NA	NA	3.24	NA	NA	NA	3.24
4	CT-4A	CT-4A	TBD	NA	NA	3.24	NA	NA	NA	3.24
5	CT-5A	CT-5A	TBD	NA	NA	3.24	NA	NA	NA	3.24
6	CT-6A	CT-6A	TBD	NA	NA	3.24	NA	NA	NA	3.24
7	CT-7A	CT-7A	TBD	NA	NA	3.24	NA	NA	NA	3.24
8	CT-8A	CT-8A	TBD	NA	NA	3.24	NA	NA	NA	3.24
9	CT-9A	CT-9A	TBD	NA	NA	3.24	NA	NA	NA	3.24
10	CT-10A	CT-10A	TBD	NA	NA	3.24	NA	NA	NA	3.24
11	CT-11A	CT-11A	TBD	NA	NA	3.24	NA	NA	NA	3.24
12	CT-12A	CT-12A	TBD	NA	NA	3.24	NA	NA	NA	3.24
13	CT-13A	CT-13A	TBD	NA	NA	3.24	NA	NA	NA	3.24
14	CT-14A	CT-14A	TBD	NA	NA	3.24	NA	NA	NA	3.24
15	CT-15A	CT-15A	TBD	NA	NA	3.24	NA	NA	NA	3.24
16	CT-16A	CT-16A	TBD	NA	NA	3.24	NA	NA	NA	3.24
17	CT-17A	CT-17A	TBD	NA	NA	3.24	NA	NA	NA	3.24
18	CT-18A	CT-18A	TBD	NA	NA	3.24	NA	NA	NA	3.24
19	CT-19A	CT-19A	TBD	NA	NA	3.24	NA	NA	NA	3.24
20	CT-20A	CT-20A	TBD	NA	NA	3.24	NA	NA	NA	3.24

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**SO2**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
	Affected or Modified Facilities [2]		Permit No.	Actual Emissions [3]	Baseline Emissions [4]	Proposed Emissions [5]	Projected Actual Emissions	Difference (B-A) [6]	Correction [7] (Could Have Accomodated)	Project Increase [8]
	FIN	EPN [2]								
21	CT-21A	CT-21A	TBD	NA	NA	3.24	NA	NA	NA	3.24
22	CT-1B	CT-1B	TBD	NA	NA	23.45	NA	NA	NA	23.45
23	CT-2B	CT-2B	TBD	NA	NA	23.45	NA	NA	NA	23.45
24	CT-3B	CT-3B	TBD	NA	NA	23.45	NA	NA	NA	23.45
25	CT-4B	CT-4B	TBD	NA	NA	23.45	NA	NA	NA	23.45
26	CT-5B	CT-5B	TBD	NA	NA	23.45	NA	NA	NA	23.45
27	CT-6B	CT-6B	TBD	NA	NA	23.45	NA	NA	NA	23.45
28	CT-7B	CT-7B	TBD	NA	NA	23.45	NA	NA	NA	23.45
29	CT-8B	CT-8B	TBD	NA	NA	23.45	NA	NA	NA	23.45
30	CT-9B	CT-9B	TBD	NA	NA	23.45	NA	NA	NA	23.45
31	CT-10B	CT-10B	TBD	NA	NA	23.45	NA	NA	NA	23.45
32	CT-11B	CT-11B	TBD	NA	NA	23.45	NA	NA	NA	23.45
33	CT-12B	CT-12B	TBD	NA	NA	23.45	NA	NA	NA	23.45
34	CT-13B	CT-13B	TBD	NA	NA	23.45	NA	NA	NA	23.45
35	CT-14B	CT-14B	TBD	NA	NA	23.45	NA	NA	NA	23.45
36	DPHEAT1	DPHEAT1	TBD	NA	NA	0.05	NA	NA	NA	0.05
37	DPHEAT2	DPHEAT2	TBD	NA	NA	0.05	NA	NA	NA	0.05
38	DPHEAT3	DPHEAT3	TBD	NA	NA	0.05	NA	NA	NA	0.05
39	DPHEAT4	DPHEAT4	TBD	NA	NA	0.05	NA	NA	NA	0.05
40	DPHEAT5	DPHEAT5	TBD	NA	NA	0.05	NA	NA	NA	0.05

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**SO2**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
	Affected or Modified Facilities [2]		Permit No.	Actual Emissions [3]	Baseline Emissions [4]	Proposed Emissions [5]	Projected Actual Emissions	Difference (B-A) [6]	Correction [7] (Could Have Accomodated)	Project Increase [8]
	FIN	EPN [2]								
41	DPHEAT6	DPHEAT6	TBD	NA	NA	0.07	NA	NA	NA	0.07
42	DPHEAT7	DPHEAT7	TBD	NA	NA	0.07	NA	NA	NA	0.07
43	DPHEAT8	DPHEAT8	TBD	NA	NA	0.07	NA	NA	NA	0.07
44	DPHEAT9	DPHEAT9	TBD	NA	NA	0.07	NA	NA	NA	0.07
45	DPHEAT10	DPHEAT10	TBD	NA	NA	0.07	NA	NA	NA	0.07
46	DPHEAT11	DPHEAT11	TBD	NA	NA	0.07	NA	NA	NA	0.07
47	DPHEAT12	DPHEAT12	TBD	NA	NA	0.07	NA	NA	NA	0.07
48	DPHEAT13	DPHEAT13	TBD	NA	NA	0.07	NA	NA	NA	0.07
49	DPHEAT14	DPHEAT14	TBD	NA	NA	0.07	NA	NA	NA	0.07
50	DPHEAT15	DPHEAT15	TBD	NA	NA	0.07	NA	NA	NA	0.07
51	DPHEAT16	DPHEAT16	TBD	NA	NA	0.07	NA	NA	NA	0.07
52	DPHEAT17	DPHEAT17	TBD	NA	NA	0.07	NA	NA	NA	0.07
53	DPHEAT18	DPHEAT18	TBD	NA	NA	0.07	NA	NA	NA	0.07
54	DPHEAT19	DPHEAT19	TBD	NA	NA	0.07	NA	NA	NA	0.07
55	FPUMP1	FPUMP1	TBD	NA	NA	0.00	NA	NA	NA	0.0002
56	FPUMP2	FPUMP2	TBD	NA	NA	0.00	NA	NA	NA	0.0002
57	EGEN1	EGEN1	TBD	NA	NA	0.00	NA	NA	NA	0.003
58	EGEN2	EGEN2	TBD	NA	NA	0.00	NA	NA	NA	0.003
59	EGEN3	EGEN3	TBD	NA	NA	0.00	NA	NA	NA	0.003
60	EGEN4	EGEN4	TBD	NA	NA	0.00	NA	NA	NA	0.003

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**SO2**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
Affected or Modified Facilities [2]			**Permit No.**	**Actual Emissions [3]**	**Baseline Emissions [4]**	**Proposed Emissions [5]**	**Projected Actual Emissions**	**Difference (B-A) [6]**	**Correction [7] (Could Have Accomodated)**	**Project Increase [8]**
	FIN	**EPN [2]**								
61	EGEN5	EGEN5	TBD	NA	NA	0.00	NA	NA	NA	0.003
62	EGEN6	EGEN6	TBD	NA	NA	0.00	NA	NA	NA	0.003
63	EGEN7	EGEN7	TBD	NA	NA	0.00	NA	NA	NA	0.003
64	EGEN8	EGEN8	TBD	NA	NA	0.00	NA	NA	NA	0.003
65	EGEN9	EGEN9	TBD	NA	NA	0.00	NA	NA	NA	0.003
66	EGEN10	EGEN10	TBD	NA	NA	0.00	NA	NA	NA	0.003
67	EGEN11	EGEN11	TBD	NA	NA	0.00	NA	NA	NA	0.003
68	EGEN12	EGEN12	TBD	NA	NA	0.00	NA	NA	NA	0.003
69	EGEN13	EGEN13	TBD	NA	NA	0.00	NA	NA	NA	0.003
70	EGEN14	EGEN14	TBD	NA	NA	0.00	NA	NA	NA	0.003
71	EGEN15	EGEN15	TBD	NA	NA	0.00	NA	NA	NA	0.003
72	ENGINE-1	ENGINE-1	TBD	NA	NA	0.05	NA	NA	NA	0.05
73	ENGINE-2	ENGINE-2	TBD	NA	NA	0.05	NA	NA	NA	0.05
74	MSSFUG	MSSFUG	TBD	NA	NA	0.00	NA	NA	NA	0.00
Summary of Contemporaneous Changes								**Total**	**0.00**	**397.70**

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**SO2**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
Affected or Modified Facilities [2]			**Permit No.**	**Actual Emissions [3]**	**Baseline Emissions [4]**	**Proposed Emissions [5]**	**Projected Actual Emissions**	**Difference (B-A) [6]**	**Correction [7] (Could Have Accomodated)**	**Project Increase [8]**
	FIN	**EPN [2]**								
Explanation (Table 2F Supplement):										

[1] Individual Table 2F's should be used to summarize the project emission increase for each criteria pollutant.

[2] Emission Point Number as designated in NSR Permit or Emissions Inventory.

[3] All records and calculations for these values must be available upon request.

[4] Correct actual emissions for currently applicable rule or permit requirements, and periods of non-compliance. These corrections, as well as any MSS previously demonstrated under 30 TAC 101, should be explained in the Table 2F supplement.

[5] If projected actual emission is used it must be noted in the next column and the basis for the projection identified in the Table 2F supplement.

[6] Proposed Emissions (column B) minus Baseline Emissions (column A).

[7] Correction made to emission increase for what portion could have been accommodated during the baseline period. The justification and basis for this estimate must be provided in the Table 2F supplement.

[8] Obtained by subtracting the correction from the difference. Must be a positive number.

[9] Sum all values for this page.

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**H2SO4**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
	Affected or Modified Facilities [2]		Permit No.	Actual Emissions [3]	Baseline Emissions [4]	Proposed Emissions [5]	Projected Actual Emissions	Difference (B-A) [6]	Correction [7] (Could Have Accomodated)	Project Increase [8]
	FIN	EPN [2]								
1	CT-1A	CT-1A	TBD	NA	NA	0.50	NA	NA	NA	0.50
2	CT-2A	CT-2A	TBD	NA	NA	0.50	NA	NA	NA	0.50
3	CT-3A	CT-3A	TBD	NA	NA	0.50	NA	NA	NA	0.50
4	CT-4A	CT-4A	TBD	NA	NA	0.50	NA	NA	NA	0.50
5	CT-5A	CT-5A	TBD	NA	NA	0.50	NA	NA	NA	0.50
6	CT-6A	CT-6A	TBD	NA	NA	0.50	NA	NA	NA	0.50
7	CT-7A	CT-7A	TBD	NA	NA	0.50	NA	NA	NA	0.50
8	CT-8A	CT-8A	TBD	NA	NA	0.50	NA	NA	NA	0.50
9	CT-9A	CT-9A	TBD	NA	NA	0.50	NA	NA	NA	0.50
10	CT-10A	CT-10A	TBD	NA	NA	0.50	NA	NA	NA	0.50
11	CT-11A	CT-11A	TBD	NA	NA	0.50	NA	NA	NA	0.50
12	CT-12A	CT-12A	TBD	NA	NA	0.50	NA	NA	NA	0.50
13	CT-13A	CT-13A	TBD	NA	NA	0.50	NA	NA	NA	0.50
14	CT-14A	CT-14A	TBD	NA	NA	0.50	NA	NA	NA	0.50
15	CT-15A	CT-15A	TBD	NA	NA	0.50	NA	NA	NA	0.50
16	CT-16A	CT-16A	TBD	NA	NA	0.50	NA	NA	NA	0.50
17	CT-17A	CT-17A	TBD	NA	NA	0.50	NA	NA	NA	0.50
18	CT-18A	CT-18A	TBD	NA	NA	0.50	NA	NA	NA	0.50
19	CT-19A	CT-19A	TBD	NA	NA	0.50	NA	NA	NA	0.50
20	CT-20A	CT-20A	TBD	NA	NA	0.50	NA	NA	NA	0.50

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**H2SO4**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
	Affected or Modified Facilities [2]		**Permit No.**	**Actual Emissions [3]**	**Baseline Emissions [4]**	**Proposed Emissions [5]**	**Projected Actual Emissions**	**Difference (B-A) [6]**	**Correction [7] (Could Have Accomodated)**	**Project Increase [8]**
	FIN	**EPN [2]**								
21	CT-21A	CT-21A	TBD	NA	NA	0.50	NA	NA	NA	0.50
22	CT-1B	CT-1B	TBD	NA	NA	3.59	NA	NA	NA	3.59
23	CT-2B	CT-2B	TBD	NA	NA	3.59	NA	NA	NA	3.59
24	CT-3B	CT-3B	TBD	NA	NA	3.59	NA	NA	NA	3.59
25	CT-4B	CT-4B	TBD	NA	NA	3.59	NA	NA	NA	3.59
26	CT-5B	CT-5B	TBD	NA	NA	3.59	NA	NA	NA	3.59
27	CT-6B	CT-6B	TBD	NA	NA	3.59	NA	NA	NA	3.59
28	CT-7B	CT-7B	TBD	NA	NA	3.59	NA	NA	NA	3.59
29	CT-8B	CT-8B	TBD	NA	NA	3.59	NA	NA	NA	3.59
30	CT-9B	CT-9B	TBD	NA	NA	3.59	NA	NA	NA	3.59
31	CT-10B	CT-10B	TBD	NA	NA	3.59	NA	NA	NA	3.59
32	CT-11B	CT-11B	TBD	NA	NA	3.59	NA	NA	NA	3.59
33	CT-12B	CT-12B	TBD	NA	NA	3.59	NA	NA	NA	3.59
34	CT-13B	CT-13B	TBD	NA	NA	3.59	NA	NA	NA	3.59
35	CT-14B	CT-14B	TBD	NA	NA	3.59	NA	NA	NA	3.59
74	MSSFUG	MSSFUG	TBD	NA	NA	0.00	NA	NA	NA	0.00
Summary of Contemporaneous Changes								**Total**	**0.00**	**60.66**

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**H2SO4**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

				A	B				
Affected or Modified Facilities [2]			**Permit No.**	**Actual Emissions [3]**	**Baseline Emissions [4]**	**Proposed Emissions [5]**	**Projected Actual Emissions**	**Difference (B-A) [6]**	**Correction [7] (Could Have Accomodated)**	**Project Increase [8]**
	FIN	**EPN [2]**								
Explanation (Table 2F Supplement):										

[1] Individual Table 2F's should be used to summarize the project emission increase for each criteria pollutant.

[2] Emission Point Number as designated in NSR Permit or Emissions Inventory.

[3] All records and calculations for these values must be available upon request.

[4] Correct actual emissions for currently applicable rule or permit requirements, and periods of non-compliance. These corrections, as well as any MSS previously demonstrated under 30 TAC 101, should be explained in the Table 2F supplement.

[5] If projected actual emission is used it must be noted in the next column and the basis for the projection identified in the Table 2F supplement.

[6] Proposed Emissions (column B) minus Baseline Emissions (column A).

[7] Correction made to emission increase for what portion could have been accommodated during the baseline period. The justification and basis for this estimate must be provided in the Table 2F supplement.

[8] Obtained by subtracting the correction from the difference. Must be a positive number.

[9] Sum all values for this page.

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**H2S**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
	Affected or Modified Facilities [2]		**Permit No.**	**Actual Emissions [3]**	**Baseline Emissions [4]**	**Proposed Emissions [5]**	**Projected Actual Emissions**	**Difference (B-A) [6]**	**Correction [7] (Could Have Accomodated)**	**Project Increase [8]**
	FIN	**EPN [2]**								
1	NGFUG	NGFUG	TBD	NA	NA	0.00	NA	NA	NA	2.18E-04
2	MSSFUG	MSSFUG	TBD	NA	NA	0.00	NA	NA	NA	3.20E-05
Summary of Contemporaneous Changes								**Total**	**0.00**	**2.50E-04**

Explanation (Table 2F Supplement):

[1] Individual Table 2F's should be used to summarize the project emission increase for each criteria pollutant.

[2] Emission Point Number as designated in NSR Permit or Emissions Inventory.

[3] All records and calculations for these values must be available upon request.

[4] Correct actual emissions for currently applicable rule or permit requirements, and periods of non-compliance. These corrections, as well as any MSS previously demonstrated under 30 TAC 101, should be explained in the Table 2F supplement.

[5] If projected actual emission is used it must be noted in the next column and the basis for the projection identified in the Table 2F supplement.

[6] Proposed Emissions (column B) minus Baseline Emissions (column A).

[7] Correction made to emission increase for what portion could have been accommodated during the baseline period. The justification and basis for this estimate must be provided in the Table 2F supplement.

[8] Obtained by subtracting the correction from the difference. Must be a positive number.

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**H2S**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

				A	B				
Affected or Modified Facilities [2]			**Permit No.**	**Actual Emissions [3]**	**Baseline Emissions [4]**	**Proposed Emissions [5]**	**Projected Actual Emissions**	**Difference (B-A) [6]**	**Correction [7] (Could Have Accomodated)**	**Project Increase [8]**
	FIN	**EPN [2]**								

[9] Sum all values for this page.

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**CO2 Equivalent**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

						A	B			
	Affected or Modified Facilities [2]		**Permit No.**	**Actual Emissions [3]**	**Baseline Emissions [4]**	**Proposed Emissions [5]**	**Projected Actual Emissions**	**Difference (B-A) [6]**	**Correction [7] (Could Have Accomodated)**	**Project Increase [8]**
	FIN	**EPN [2]**								
1	NGFUG	NGFUG	TBD	NA	NA	738	NA	NA	NA	738
2	CT-1A	CT-1A	TBD	NA	NA	270,365	NA	NA	NA	270,365
3	CT-2A	CT-2A	TBD	NA	NA	270,365	NA	NA	NA	270,365
4	CT-3A	CT-3A	TBD	NA	NA	270,365	NA	NA	NA	270,365
5	CT-4A	CT-4A	TBD	NA	NA	270,365	NA	NA	NA	270,365
6	CT-5A	CT-5A	TBD	NA	NA	270,365	NA	NA	NA	270,365
7	CT-6A	CT-6A	TBD	NA	NA	270,365	NA	NA	NA	270,365
8	CT-7A	CT-7A	TBD	NA	NA	270,365	NA	NA	NA	270,365
9	CT-8A	CT-8A	TBD	NA	NA	270,365	NA	NA	NA	270,365
10	CT-9A	CT-9A	TBD	NA	NA	270,365	NA	NA	NA	270,365
11	CT-10A	CT-10A	TBD	NA	NA	270,365	NA	NA	NA	270,365
12	CT-11A	CT-11A	TBD	NA	NA	270,365	NA	NA	NA	270,365
13	CT-12A	CT-12A	TBD	NA	NA	270,365	NA	NA	NA	270,365
14	CT-13A	CT-13A	TBD	NA	NA	270,365	NA	NA	NA	270,365
15	CT-14A	CT-14A	TBD	NA	NA	270,365	NA	NA	NA	270,365
16	CT-15A	CT-15A	TBD	NA	NA	270,365	NA	NA	NA	270,365
17	CT-16A	CT-16A	TBD	NA	NA	270,365	NA	NA	NA	270,365
18	CT-17A	CT-17A	TBD	NA	NA	270,365	NA	NA	NA	270,365
19	CT-18A	CT-18A	TBD	NA	NA	270,365	NA	NA	NA	270,365
20	CT-19A	CT-19A	TBD	NA	NA	270,365	NA	NA	NA	270,365

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**CO2 Equivalent**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
	Affected or Modified Facilities [2]		**Permit No.**	**Actual Emissions [3]**	**Baseline Emissions [4]**	**Proposed Emissions [5]**	**Projected Actual Emissions**	**Difference (B-A) [6]**	**Correction [7] (Could Have Accomodated)**	**Project Increase [8]**
	FIN	**EPN [2]**								
21	CT-20A	CT-20A	TBD	NA	NA	270,365	NA	NA	NA	270,365
22	CT-21A	CT-21A	TBD	NA	NA	270,365	NA	NA	NA	270,365
23	CT-1B	CT-1B	TBD	NA	NA	1,957,719	NA	NA	NA	1,957,719
24	CT-2B	CT-2B	TBD	NA	NA	1,957,719	NA	NA	NA	1,957,719
25	CT-3B	CT-3B	TBD	NA	NA	1,957,719	NA	NA	NA	1,957,719
26	CT-4B	CT-4B	TBD	NA	NA	1,957,719	NA	NA	NA	1,957,719
27	CT-5B	CT-5B	TBD	NA	NA	1,957,719	NA	NA	NA	1,957,719
28	CT-6B	CT-6B	TBD	NA	NA	1,957,719	NA	NA	NA	1,957,719
29	CT-7B	CT-7B	TBD	NA	NA	1,957,719	NA	NA	NA	1,957,719
30	CT-8B	CT-8B	TBD	NA	NA	1,957,719	NA	NA	NA	1,957,719
31	CT-9B	CT-9B	TBD	NA	NA	1,957,719	NA	NA	NA	1,957,719
32	CT-10B	CT-10B	TBD	NA	NA	1,957,719	NA	NA	NA	1,957,719
33	CT-11B	CT-11B	TBD	NA	NA	1,957,719	NA	NA	NA	1,957,719
34	CT-12B	CT-12B	TBD	NA	NA	1,957,719	NA	NA	NA	1,957,719
35	CT-13B	CT-13B	TBD	NA	NA	1,957,719	NA	NA	NA	1,957,719
36	CT-14B	CT-14B	TBD	NA	NA	1,957,719	NA	NA	NA	1,957,719
37	DPHEAT1	DPHEAT1	TBD	NA	NA	4,513	NA	NA	NA	4,513
38	DPHEAT2	DPHEAT2	TBD	NA	NA	4,513	NA	NA	NA	4,513
39	DPHEAT3	DPHEAT3	TBD	NA	NA	4,513	NA	NA	NA	4,513
40	DPHEAT4	DPHEAT4	TBD	NA	NA	4,513	NA	NA	NA	4,513

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**CO2 Equivalent**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

						A	B			
	Affected or Modified Facilities [2]		**Permit No.**	**Actual Emissions [3]**	**Baseline Emissions [4]**	**Proposed Emissions [5]**	**Projected Actual Emissions**	**Difference (B-A) [6]**	**Correction [7] (Could Have Accomodated)**	**Project Increase [8]**
	FIN	**EPN [2]**								
41	DPHEAT5	DPHEAT5	TBD	NA	NA	4,513	NA	NA	NA	4,513
42	DPHEAT6	DPHEAT6	TBD	NA	NA	5,693	NA	NA	NA	5,693
43	DPHEAT7	DPHEAT7	TBD	NA	NA	5,693	NA	NA	NA	5,693
44	DPHEAT8	DPHEAT8	TBD	NA	NA	5,693	NA	NA	NA	5,693
45	DPHEAT9	DPHEAT9	TBD	NA	NA	5,693	NA	NA	NA	5,693
46	DPHEAT10	DPHEAT10	TBD	NA	NA	5,693	NA	NA	NA	5,693
47	DPHEAT11	DPHEAT11	TBD	NA	NA	5,693	NA	NA	NA	5,693
48	DPHEAT12	DPHEAT12	TBD	NA	NA	5,693	NA	NA	NA	5,693
49	DPHEAT13	DPHEAT13	TBD	NA	NA	5,693	NA	NA	NA	5,693
50	DPHEAT14	DPHEAT14	TBD	NA	NA	5,693	NA	NA	NA	5,693
51	DPHEAT15	DPHEAT15	TBD	NA	NA	5,693	NA	NA	NA	5,693
52	DPHEAT16	DPHEAT16	TBD	NA	NA	5,693	NA	NA	NA	5,693
53	DPHEAT17	DPHEAT17	TBD	NA	NA	5,693	NA	NA	NA	5,693
54	DPHEAT18	DPHEAT18	TBD	NA	NA	5,693	NA	NA	NA	5,693
55	DPHEAT19	DPHEAT19	TBD	NA	NA	5,693	NA	NA	NA	5,693
56	FPUMP1	FPUMP1	TBD	NA	NA	6	NA	NA	NA	6
57	FPUMP2	FPUMP2	TBD	NA	NA	6	NA	NA	NA	6
58	EGEN1	EGEN1	TBD	NA	NA	84	NA	NA	NA	84
59	EGEN2	EGEN2	TBD	NA	NA	84	NA	NA	NA	84
60	EGEN3	EGEN3	TBD	NA	NA	84	NA	NA	NA	84

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**CO2 Equivalent**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
	Affected or Modified Facilities [2]		**Permit No.**	**Actual Emissions [3]**	**Baseline Emissions [4]**	**Proposed Emissions [5]**	**Projected Actual Emissions**	**Difference (B-A) [6]**	**Correction [7] (Could Have Accomodated)**	**Project Increase [8]**
	FIN	**EPN [2]**								
61	EGEN4	EGEN4	TBD	NA	NA	84	NA	NA	NA	84
62	EGEN5	EGEN5	TBD	NA	NA	84	NA	NA	NA	84
63	EGEN6	EGEN6	TBD	NA	NA	84	NA	NA	NA	84
64	EGEN7	EGEN7	TBD	NA	NA	84	NA	NA	NA	84
65	EGEN8	EGEN8	TBD	NA	NA	84	NA	NA	NA	84
66	EGEN9	EGEN9	TBD	NA	NA	84	NA	NA	NA	84
67	EGEN10	EGEN10	TBD	NA	NA	84	NA	NA	NA	84
68	EGEN11	EGEN11	TBD	NA	NA	84	NA	NA	NA	84
69	EGEN12	EGEN12	TBD	NA	NA	84	NA	NA	NA	84
70	EGEN13	EGEN13	TBD	NA	NA	84	NA	NA	NA	84
71	EGEN14	EGEN14	TBD	NA	NA	84	NA	NA	NA	84
72	EGEN15	EGEN15	TBD	NA	NA	84	NA	NA	NA	84
73	ENGINE-1	ENGINE-1	TBD	NA	NA	3,760	NA	NA	NA	3,760
74	ENGINE-2	ENGINE-2	TBD	NA	NA	3,760	NA	NA	NA	3,760
75	MSSFUG	MSSFUG	TBD	NA	NA	119	NA	NA	NA	119
76	FUG-SF6	FUG-SF6	TBD	NA	NA	14,641	NA	NA	NA	14,641
Summary of Contemporaneous Changes								**Total**	**0.00**	**33,212,285**

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**CO2 Equivalent**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
Affected or Modified Facilities [2]			**Permit No.**	**Actual Emissions [3]**	**Baseline Emissions [4]**	**Proposed Emissions [5]**	**Projected Actual Emissions**	**Difference (B-A) [6]**	**Correction [7] (Could Have Accomodated)**	**Project Increase [8]**
	FIN	**EPN [2]**								
Explanation (Table 2F Supplement):										

[1] Individual Table 2F's should be used to summarize the project emission increase for each criteria pollutant.

[2] Emission Point Number as designated in NSR Permit or Emissions Inventory.

[3] All records and calculations for these values must be available upon request.

[4] Correct actual emissions for currently applicable rule or permit requirements, and periods of non-compliance. These corrections, as well as any MSS previously demonstrated under 30 TAC 101, should be explained in the Table 2F supplement.

[5] If projected actual emission is used it must be noted in the next column and the basis for the projection identified in the Table 2F supplement.

[6] Proposed Emissions (column B) minus Baseline Emissions (column A).

[7] Correction made to emission increase for what portion could have been accommodated during the baseline period. The justification and basis for this estimate must be provided in the Table 2F supplement.

[8] Obtained by subtracting the correction from the difference. Must be a positive number.

[9] Sum all values for this page.

Initial New Source Review (NSR) Air Permit and Prevention of Significant Deterioration (PSD) Application

Pacifico GW LLC
GW Ranch Energy Center

Pecos County, Texas

August 2025

11767 Katy Freeway, Suite 850 | Houston, TX 77079 | **t** 713.244.1000

TRCcompanies.com

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Section 1
Introduction

1.1 Project Overview

Pacifico GW LLC (Pacifico) is submitting this air permit application to authorize the construction of a natural gas-fired simple cycle power plant at a greenfield site in Pecos County, Texas. The new power plant (the Project) will operate under the name GW Ranch Energy Center (GW Ranch). GW Ranch will provide electricity to an on-site Artificial Intelligence (AI)-focused data center campus and will not be capable of selling electricity to or receiving power from the local utility power distribution system.

Pecos County is designated as an attainment or unclassifiable area for all criteria pollutants. As shown on the Area Map and Plot Plan, GW Ranch will be constructed on undeveloped land in Pecos County. The Project will result in emissions of nitrogen oxides (NO_X), volatile organic compounds (VOC), carbon monoxide (CO), particulate matter (PM), particulate matter with diameters of 10 microns or less (PM_{10}), particulate matter with diameters of 2.5 microns or less ($PM_{2.5}$), sulfur dioxide (SO_2), sulfuric acid (H_2SO_4), ammonia (NH_3), and Greenhouse Gas (GHG) emissions quantified as carbon dioxide equivalent (CO_2e).

This Project will trigger New Source Review (NSR) permitting and Prevention of Significant Deterioration (PSD) review for non-GHG NSR regulated pollutants, which are ozone as VOC and NO_X emissions, CO, PM_{10}, $PM_{2.5}$, NO_X, and SO_2. The Project is also required to obtain a PSD permit for GHG emissions. As such, this consolidated application is being submitted for the NSR permit, non-GHG PSD permit, and GHG PSD permit.

1.2 Facility Overview

The Project will consist of the installation of fourteen (14) large-frame (H-Class, HL-Class, or J-Class) simple cycle combustion turbines, twenty-one (21) Siemens Energy SGT-800 simple cycle combustion turbines, and ancillary equipment. The Project's nominal generation capacity will be approximately 5,000 megawatts (MW). The turbines will be fired exclusively with pipeline quality natural gas.

Pacifico has not selected an Original Equipment Manufacturer (OEM) for the large-frame combustion turbines due to the uncertainty in availability of gas turbines in the current marketplace. Due to the high demand and supply chain constraints on gas turbines globally, this Project proposes an "envelope" approach to quantifying the worst-case Potential-to-Emit

(PTE) for the large-frame combustion turbines to be permitted. As such, we identified four (4) potential turbine manufacturers; Doosan Enerbility, GE Vernova, Mitsubishi Power, and Siemens Energy, which each offer similar H-Class, HL-Class, or J-Class gas turbine models, for establishing the maximum allowable emission rates (MAER) for the Project.

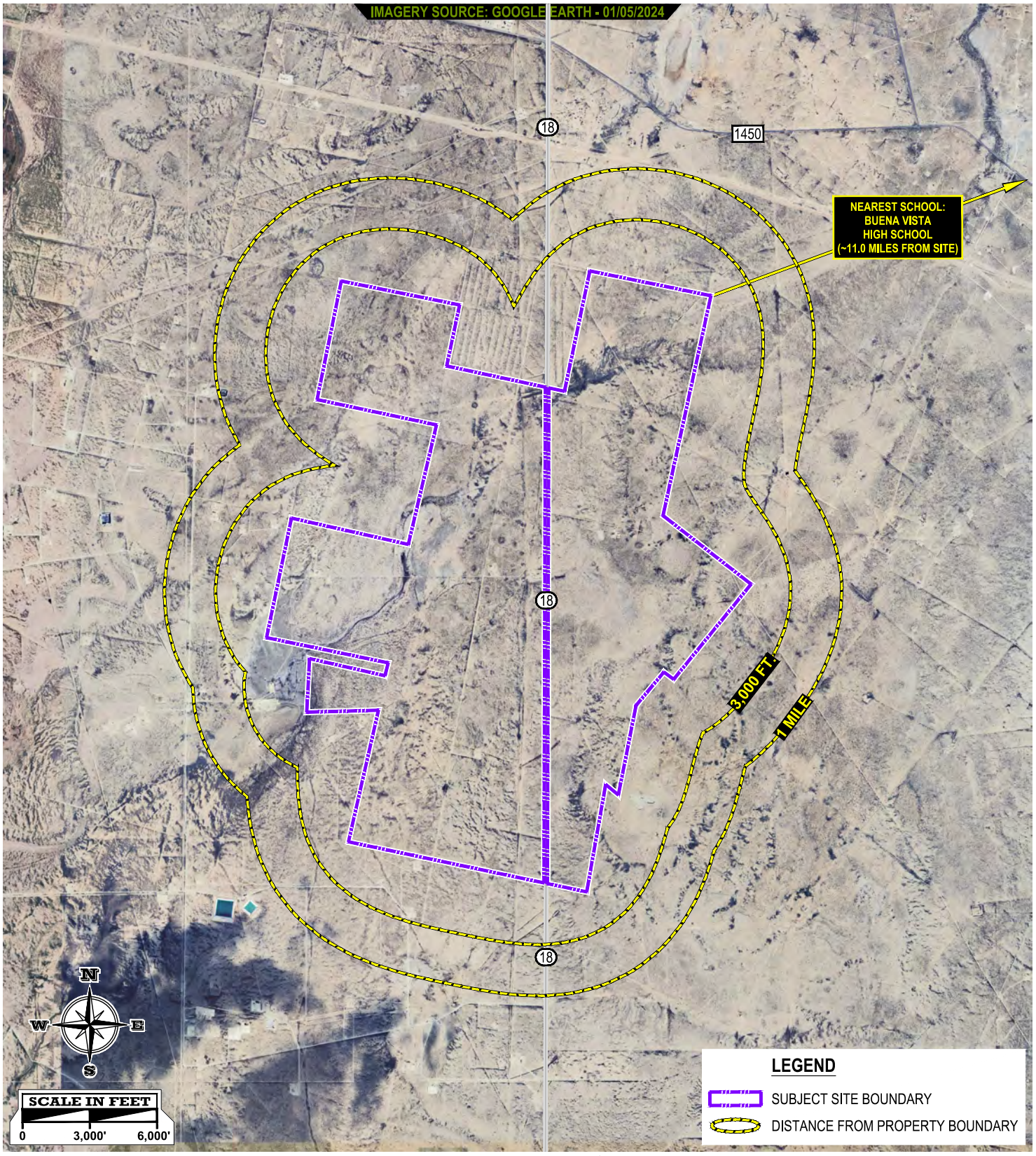
The envelope approach establishes an upper bound or "envelope" of potential emissions for the sources and pollutants to be permitted, representing the highest possible operating and emissions scenario to allow for selection of a turbine OEM in the future that meets the proposed permit emission limits and operating specifications. Given the use of multiple turbine OEMs, there is inevitable variation among the specifications provided by each vendor, with no one vendor uniformly presenting the lowest emissions for all pollutants. As such, the envelope ensures a conservative estimate of emissions that has been shown to be limited in such a way as to protect applicable air quality standards. This application demonstrates through the Air Quality Analysis (AQA), proposed monitoring, and air emissions controls that the permit will be protective with the worst-case PTE.

Pacifico requests that the issued permit allow for installation of one, or a combination of, the proposed turbine OEM models, or equivalent natural gas-fired combustion turbines under the condition that Pacifico will seek an alteration in accordance with Title 30 Texas Administrative Code (30 TAC) §116.116(c) to conform (decrease) allowable emissions to the levels properly associated with the ultimately selected turbine vendor.

1.3 Area Map and Plot Plan

The Project will be situated on an approximately 8,400-acre site in Pecos County, Texas. The Project involves the development of approximately 1,500 acres devoted to the power generation facilities and data center campus. The site is located on Highway 18, approximately 17 miles north of Fort Stockton, in Pecos County.

The enclosed Area Map, **Figure 1-1**, has been included with this application to illustrate the location of the property and surrounding area. The area map includes a true north arrow, accurate scale, the entire plant property, the location of the property relative to prominent geographical features, and significant landmarks. Figure 1-1 includes a circle of 3,000-ft radius and a circle of one-mile radius from the property boundary. The area map includes current aerial photography to depict the land use surrounding GW Ranch. As shown, there are no schools located within a 3,000-ft radius from the site and the nearest receptor (permanently occupied off-site structure) apparent from mapping is approximately 2.2 miles from emissions generating sources.



SITE LOCATION



CLIENT / PROJECT

PACIFICO GW LLC
GW Ranch Energy Center
Pecos County, Texas

TITLE

AREA MAP

DRAWN BY: O. Fonseka	REQUEST BY: A. Jilla	PROJECT NO. 656475
DWG. DATE: August 2025	PROJECT-MGR: E. Stanko	

TRC
11767 KATY FREEWAY, SUITE 850
HOUSTON, TEXAS 77079
PHONE: 281-616-0100
TRCcompanies.com

FIGURE **1-1**

LAST EDIT: 08/01/2025 - FILE LOCATION: HOU C:\OF-TRC\DRAFTING-CDrive\PPL-Files\MISC-Projects\Pacifico Power - Pecos Co-TX\ PacificoPower-PecosCoTX- Area Map-Plot Plans-PFD.dwg

DRAWING By: **Oskar Fonseka** - FILE NAME: PacificoPower-PecosCoTX- Area Map-Plot Plans-PFD.dwg

The enclosed Plot Plans, **Figures 1-2**, **1-2A**, **1-2B**, **1-2C,** and **1-2D** show the scale, north direction, two benchmark locations, all property lines, and all emission points associated with the facilities to be permitted in this application.

IMAGERY SOURCE: GOOGLE EARTH - 01/05/2024

1450

18

18

18

FIGURE 1-2D

FIGURE 1-2C

FIGURE 1-2B

FIGURE 1-2A

LEGEND

- APPROXIMATE PROPERTY BOUNDARY
- AREA OF DETAIL
- AREA SOURCE (EPN: NH3FUG)
- AREA SOURCE (EPN: FUG-SF6)
- AREA SOURCE (EPN: MSSFUG)

N W E S

0 1,500' 3,000' 6,000'

SCALE IN FEET
1" = 3,000'-0"

CLIENT / PROJECT

PACIFICO GW LLC
GW Ranch Energy Center
Pecos County, Texas

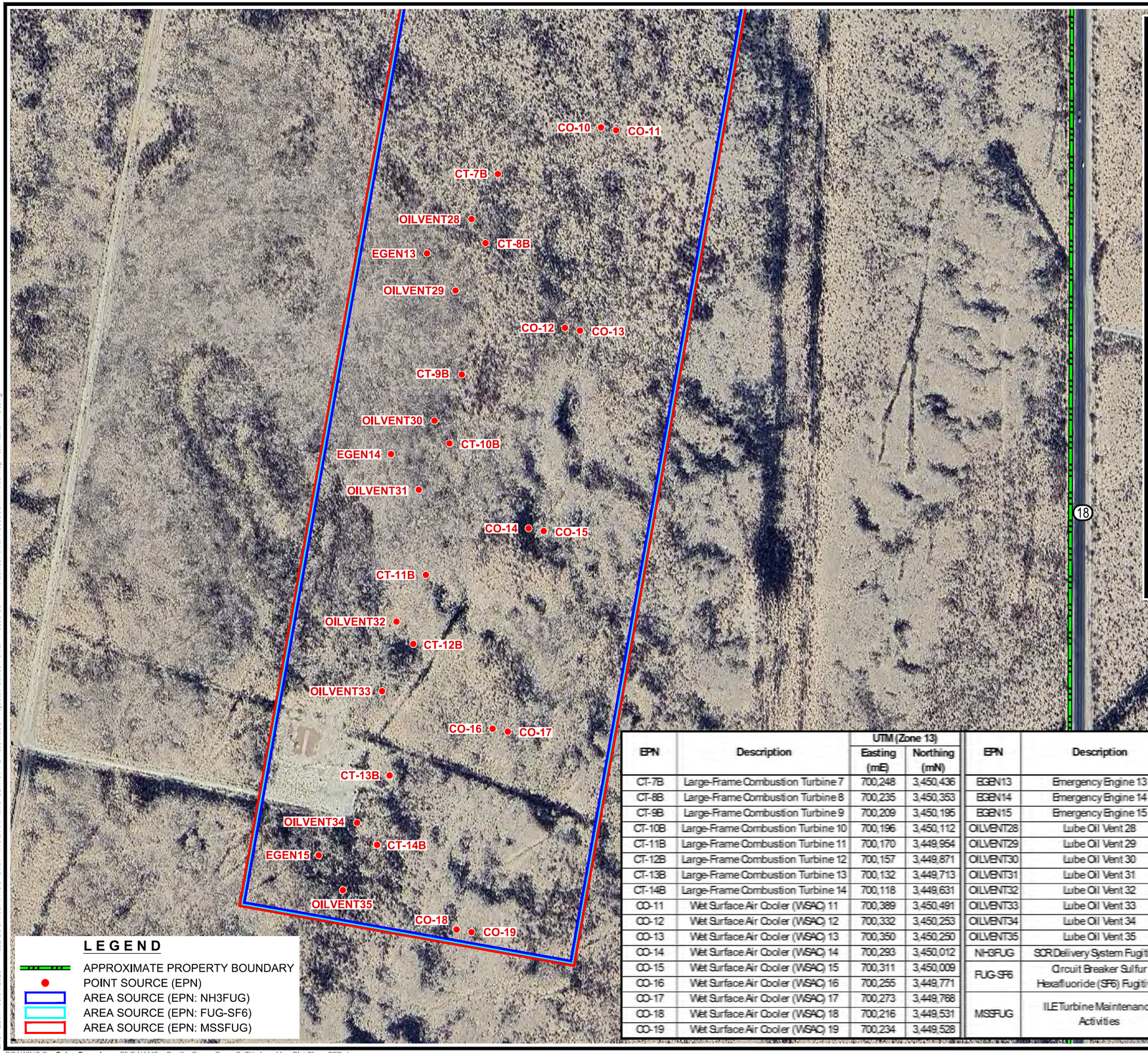
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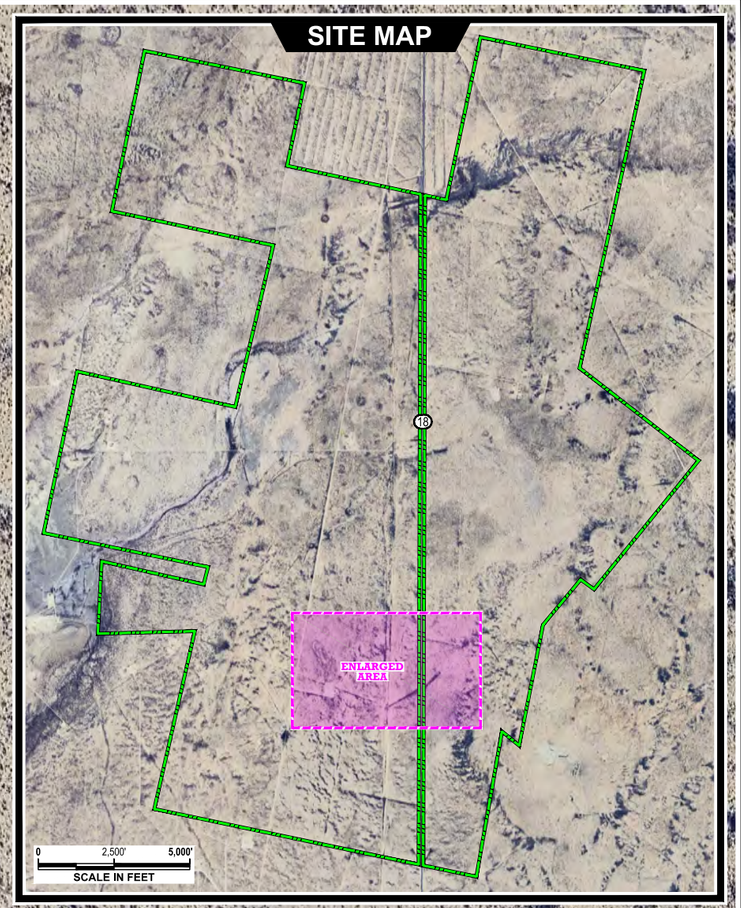
PLOT PLAN

DRAWN BY: **O. Fonseka**	REQUEST BY: **A. Jilla**	PROJECT NO. **656475**
DWG. DATE: **August 2025**	PROJECT-MGR: **E. Stanko**	

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FIGURE **1-2**







0 200' 400' 800'

SCALE IN FEET
1" = 400'-0"

EPN	Description	UTM (Zone 13) Easting (mE)	UTM (Zone 13) Northing (mN)
CT-7B	Large-Frame Combustion Turbine 7	700,248	3,450,436
CT-8B	Large-Frame Combustion Turbine 8	700,235	3,450,353
CT-9B	Large-Frame Combustion Turbine 9	700,209	3,450,195
CT-10B	Large-Frame Combustion Turbine 10	700,196	3,450,112
CT-11B	Large-Frame Combustion Turbine 11	700,170	3,449,954
CT-12B	Large-Frame Combustion Turbine 12	700,157	3,449,871
CT-13B	Large-Frame Combustion Turbine 13	700,132	3,449,713
CT-14B	Large-Frame Combustion Turbine 14	700,118	3,449,631
CO-11	Wet Surface Air Cooler (WSAC) 11	700,389	3,450,491
CO-12	Wet Surface Air Cooler (WSAC) 12	700,332	3,450,253
CO-13	Wet Surface Air Cooler (WSAC) 13	700,350	3,450,250
CO-14	Wet Surface Air Cooler (WSAC) 14	700,293	3,450,012
CO-15	Wet Surface Air Cooler (WSAC) 15	700,311	3,450,009
CO-16	Wet Surface Air Cooler (WSAC) 16	700,255	3,449,771
CO-17	Wet Surface Air Cooler (WSAC) 17	700,273	3,449,768
CO-18	Wet Surface Air Cooler (WSAC) 18	700,216	3,449,531
CO-19	Wet Surface Air Cooler (WSAC) 19	700,234	3,449,528

EPN	Description	UTM (Zone 13) Easting (mE)	UTM (Zone 13) Northing (mN)
EGEN13	Emergency Engine 13	700,165	3,450,339
EGEN14	Emergency Engine 14	700,126	3,450,098
EGEN15	Emergency Engine 15	700,048	3,449,617
OILVENT28	Lube Oil Vent 28	700,218	3,450,381
OILVENT29	Lube Oil Vent 29	700,200	3,450,295
OILVENT30	Lube Oil Vent 30	700,178	3,450,139
OILVENT31	Lube Oil Vent 31	700,160	3,450,056
OILVENT32	Lube Oil Vent 32	700,136	3,449,898
OILVENT33	Lube Oil Vent 33	700,121	3,449,814
OILVENT34	Lube Oil Vent 34	700,093	3,449,656
OILVENT35	Lube Oil Vent 35	700,078	3,449,575
NH3FUG	SCR Delivery System Fugitives	700,382	3,450,645
FUG-SF6	Circuit Breaker Sulfur Hexafluoride (SF6) Fugitives	700,382	3,450,645
MSSFUG	ILE Turbine Maintenance Activities	700,382	3,450,645

CLIENT / PROJECT

PACIFICO GW LLC
GW Ranch Energy Center
Pecos County, Texas

TITLE

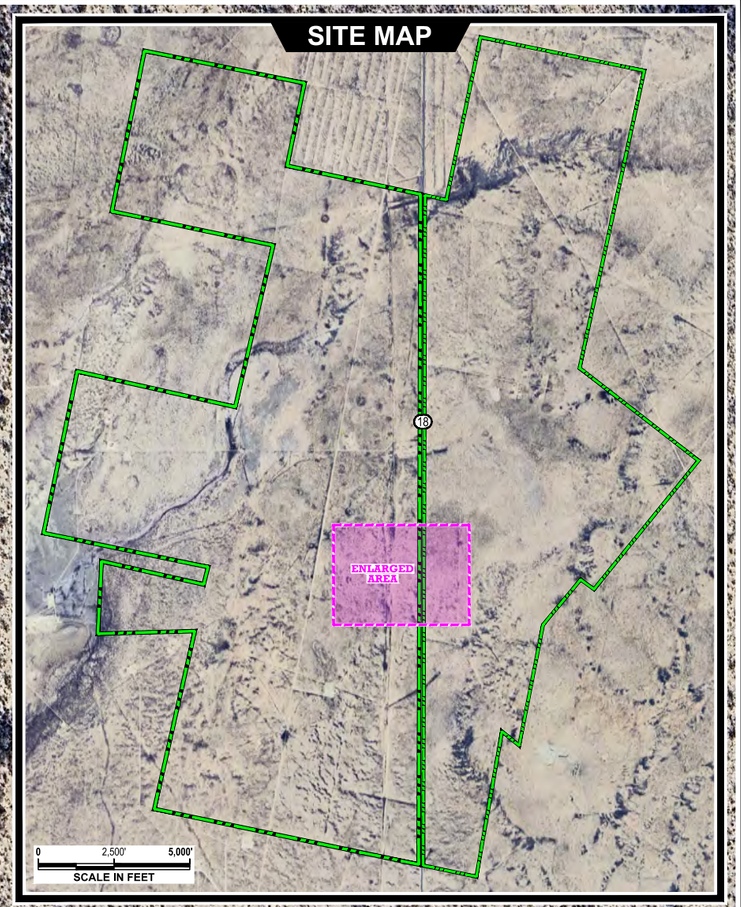
PLOT PLAN SECTION A

DRAWN BY: **O. Fonseka**	REQUEST BY: **A. Jilla**	PROJECT NO. **656475**
DWG. DATE: **August 2025**	PROJECT-MGR: **E. Stanko**	FIGURE **1-2A**

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DRAWING By: Oskar Fonseka - FILE NAME: PacificoPower-PecosCoTX- Area Map-Plot Plans-PFD.dwg







0 125' 250' 500'

SCALE IN FEET
1" = 250'-0"

LEGEND

- APPROXIMATE PROPERTY BOUNDARY
- POINT SOURCE (EPN)
- VOLUME SOURCE (EPN)
- AREA SOURCE (EPN: NH3FUG)
- AREA SOURCE (EPN: FUG-SF6)
- AREA SOURCE (EPN: MSSFUG)

EPN	Description	UTM (Zone 13) Easting (mE)	UTM (Zone 13) Northing (mN)
CT-1B	Large-Frame Combustion Turbine 1	700,365	3,451,158
CT-2B	Large-Frame Combustion Turbine 2	700,351	3,451,075
CT-3B	Large-Frame Combustion Turbine 3	700,326	3,450,917
CT-4B	Large-Frame Combustion Turbine 4	700,313	3,450,834
CT-5B	Large-Frame Combustion Turbine 5	700,287	3,450,676
CT-6B	Large-Frame Combustion Turbine 6	700,274	3,450,594
CO-6	Wet Surface Air Cooler (WSAC) 6	700,449	3,450,975
CO-7	Wet Surface Air Cooler (WSAC) 7	700,467	3,450,972
CO-8	Wet Surface Air Cooler (WSAC) 8	700,410	3,450,734
CO-9	Wet Surface Air Cooler (WSAC) 9	700,428	3,450,732
EGEN9	Emergency Engine 9	700,295	3,451,144
EGEN10	Emergency Engine 10	700,281	3,451,061
EGEN11	Emergency Engine 11	700,256	3,450,903
EGEN12	Emergency Engine 12	700,242	3,450,820
OILVENT22	Lube Oil Vent 22	700,339	3,451,104
OILVENT23	Lube Oil Vent 23	700,323	3,451,020
OILVENT24	Lube Oil Vent 24	700,299	3,450,862
OILVENT25	Lube Oil Vent 25	700,284	3,450,777
OILVENT26	Lube Oil Vent 26	700,259	3,450,619
OILVENT27	Lube Oil Vent 27	700,245	3,450,540
DPHEAT1	Dewpoint Heater 1	700,743	3,451,060
DPHEAT2	Dewpoint Heater 2	700,742	3,451,053
DPHEAT3	Dewpoint Heater 3	700,740	3,451,046
DPHEAT4	Dewpoint Heater 4	700,739	3,451,039
DPHEAT5	Dewpoint Heater 5	700,738	3,451,032
DPHEAT6	Dewpoint Heater 6	700,727	3,450,960
DPHEAT7	Dewpoint Heater 7	700,726	3,450,953
DPHEAT8	Dewpoint Heater 8	700,724	3,450,946
DPHEAT9	Dewpoint Heater 9	700,723	3,450,939
DPHEAT10	Dewpoint Heater 10	700,722	3,450,932
DPHEAT11	Dewpoint Heater 11	700,711	3,450,861
DPHEAT12	Dewpoint Heater 12	700,710	3,450,854
DPHEAT13	Dewpoint Heater 13	700,708	3,450,847
DPHEAT14	Dewpoint Heater 14	700,695	3,450,762
DPHEAT15	Dewpoint Heater 15	700,694	3,450,755
DPHEAT16	Dewpoint Heater 16	700,692	3,450,748
DPHEAT17	Dewpoint Heater 17	700,679	3,450,662
DPHEAT18	Dewpoint Heater 18	700,677	3,450,655
DPHEAT19	Dewpoint Heater 19	700,676	3,450,648
NGFUG	Natural Gas Piping Fugitives	700,742	3,450,832
NH3FUG	SCR Delivery System Fugitives	700,382	3,450,645
FUG-SF6	Circuit Breaker Sulfur Hexafluoride (SF6) Fugitives	700,382	3,450,645
MSSFUG	ILE Turbine Maintenance Activities	700,382	3,450,645

CLIENT / PROJECT

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GW Ranch Energy Center
Pecos County, Texas

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PLOT PLAN SECTION B

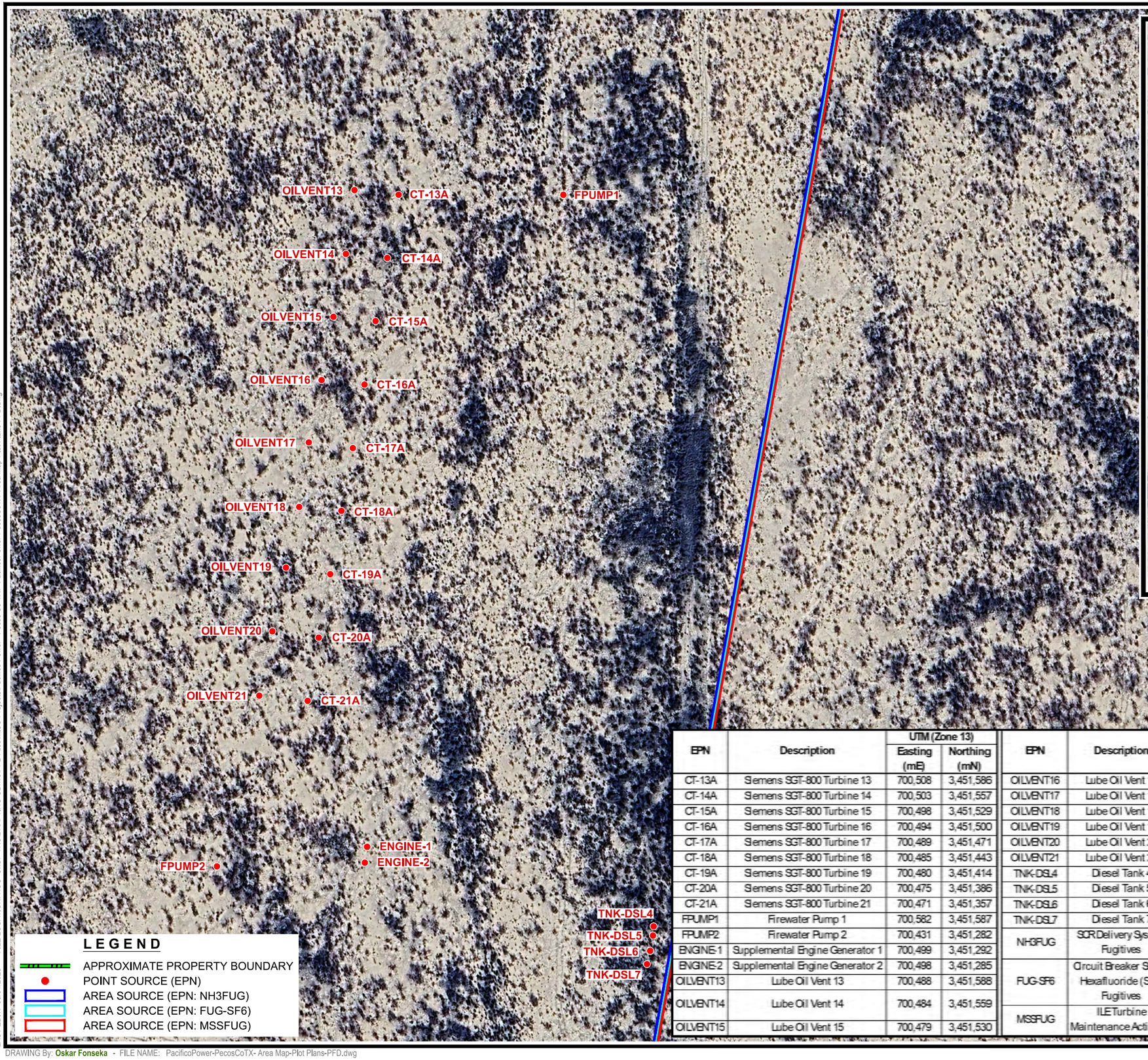
DRAWN BY: O. Fonseka	REQUEST BY: A. Jilla	PROJECT NO. 656475
DWG. DATE: August 2025	PROJECT-MGR: E. Stanko	

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FIGURE **1-2B**

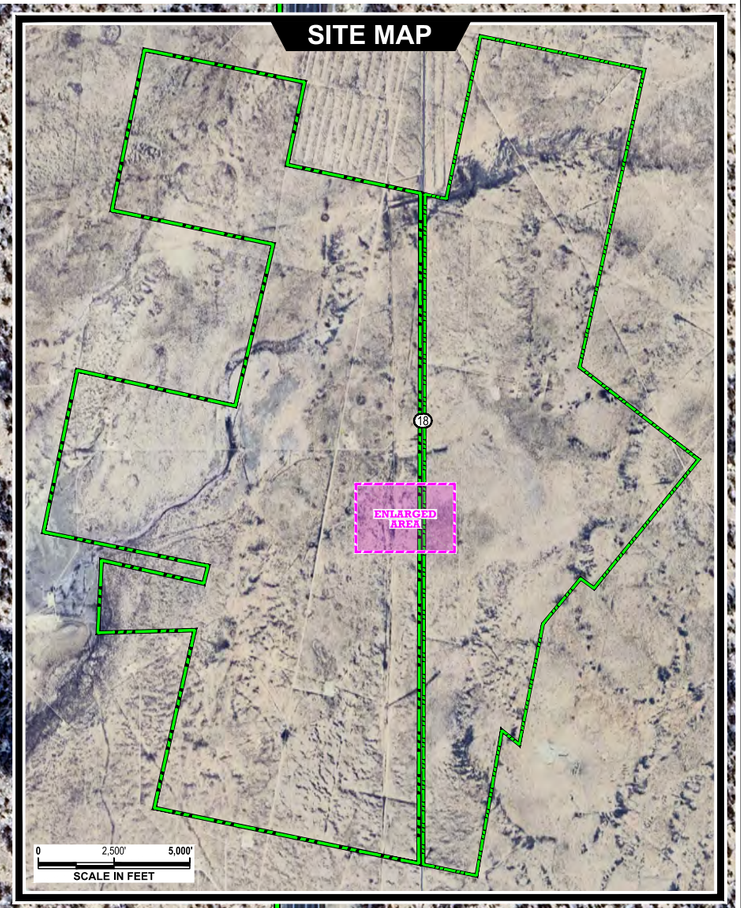
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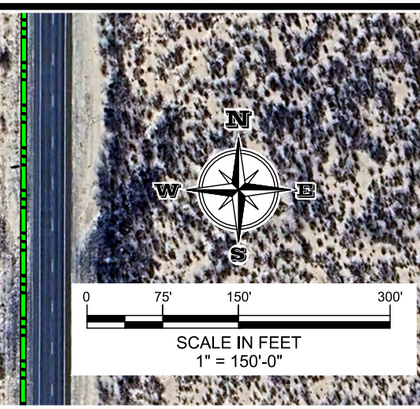
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LEGEND

- APPROXIMATE PROPERTY BOUNDARY
- POINT SOURCE (EPN)
- AREA SOURCE (EPN: NH3FUG)
- AREA SOURCE (EPN: FUG-SF6)
- AREA SOURCE (EPN: MSSFUG)





EPN	Description	UTM (Zone 13) Easting (mE)	UTM (Zone 13) Northing (mN)
CT-13A	Siemens SGT-800 Turbine 13	700,508	3,451,586
CT-14A	Siemens SGT-800 Turbine 14	700,503	3,451,557
CT-15A	Siemens SGT-800 Turbine 15	700,498	3,451,529
CT-16A	Siemens SGT-800 Turbine 16	700,494	3,451,500
CT-17A	Siemens SGT-800 Turbine 17	700,489	3,451,471
CT-18A	Siemens SGT-800 Turbine 18	700,485	3,451,443
CT-19A	Siemens SGT-800 Turbine 19	700,480	3,451,414
CT-20A	Siemens SGT-800 Turbine 20	700,475	3,451,386
CT-21A	Siemens SGT-800 Turbine 21	700,471	3,451,357
FPUMP1	Firewater Pump 1	700,562	3,451,587
FPUMP2	Firewater Pump 2	700,431	3,451,282
ENGINE-1	Supplemental Engine Generator 1	700,499	3,451,292
ENGINE-2	Supplemental Engine Generator 2	700,498	3,451,285
OILVENT13	Lube Oil Vent 13	700,488	3,451,588
OILVENT14	Lube Oil Vent 14	700,484	3,451,559
OILVENT15	Lube Oil Vent 15	700,479	3,451,530

EPN	Description	UTM (Zone 13) Easting (mE)	UTM (Zone 13) Northing (mN)
OILVENT16	Lube Oil Vent 16	700,474	3,451,502
OILVENT17	Lube Oil Vent 17	700,469	3,451,473
OILVENT18	Lube Oil Vent 18	700,465	3,451,444
OILVENT19	Lube Oil Vent 19	700,460	3,451,417
OILVENT20	Lube Oil Vent 20	700,454	3,451,388
OILVENT21	Lube Oil Vent 21	700,449	3,451,359
TNK-DSL4	Diesel Tank 4	700,628	3,451,258
TNK-DSL5	Diesel Tank 5	700,628	3,451,254
TNK-DSL6	Diesel Tank 6	700,627	3,451,247
TNK-DSL7	Diesel Tank 7	700,626	3,451,241
NH3FUG	SCR Delivery System Fugitives	700,382	3,450,645
FUG-SF6	Circuit Breaker Sulfur Hexafluoride (SF6) Fugitives	700,382	3,450,645
MSSFUG	ILE Turbine Maintenance Activities	700,382	3,450,645

CLIENT / PROJECT

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GW Ranch Energy Center
Pecos County, Texas

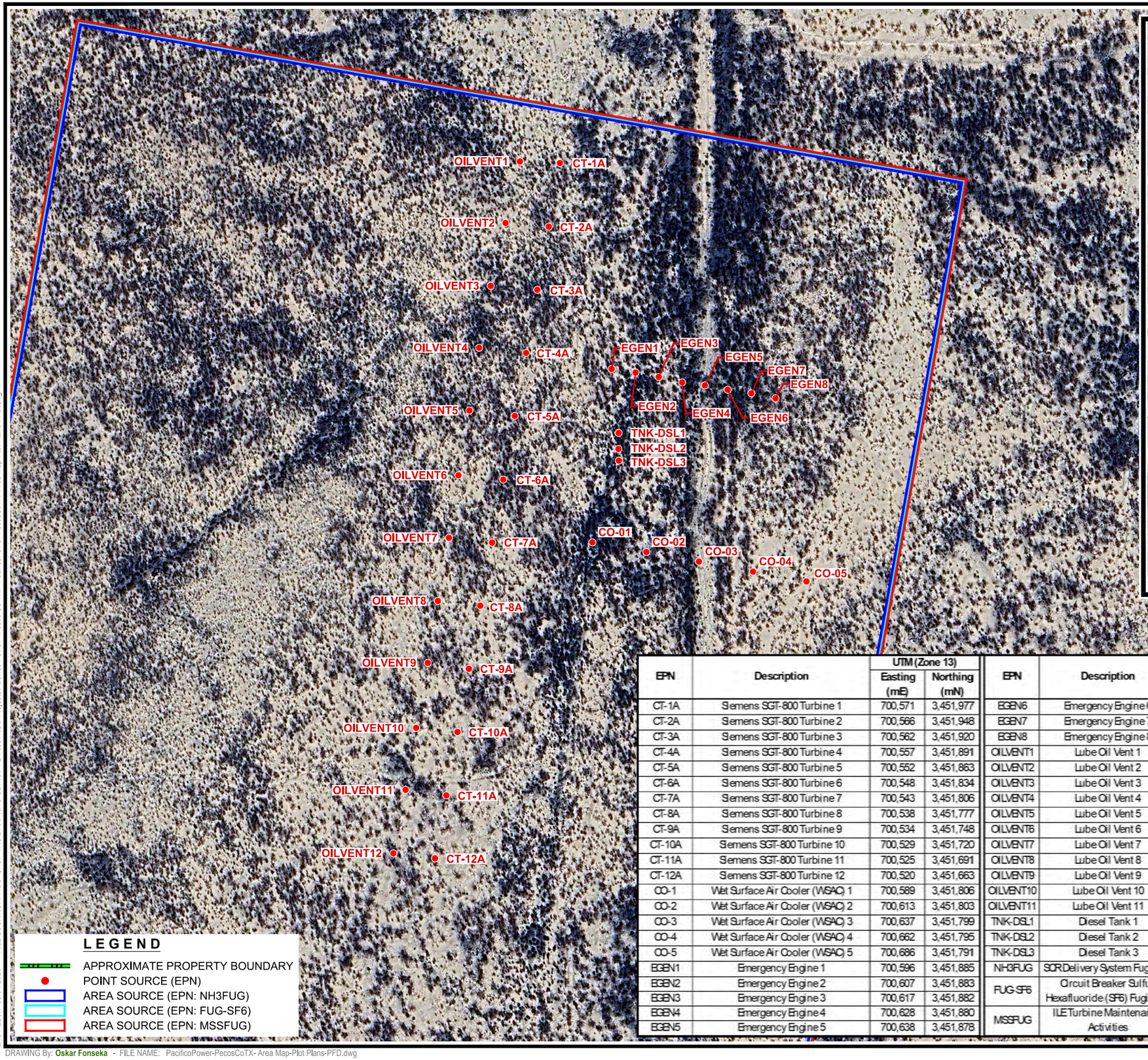
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PLOT PLAN SECTION C

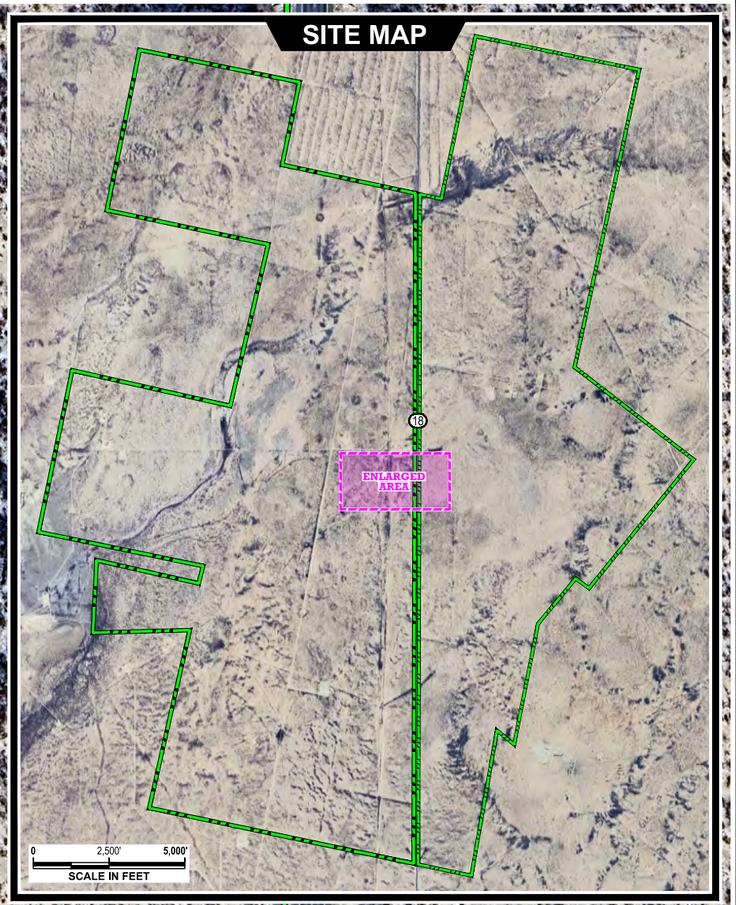
DRAWN BY: O. Fonseka	REQUEST BY: A. Jilla	PROJECT NO. 656475
DWG. DATE: August 2025	PROJECT-MGR: E. Stanko	FIGURE 1-2C

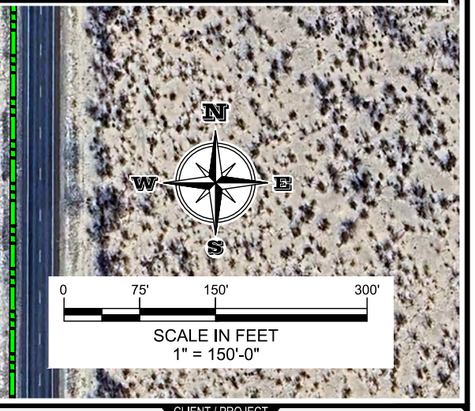
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DRAWING By: Oskar Fonseka - FILE NAME: PacificoPower-PecosCoTX- Area Map-Plot Plans-PFD.dwg



SITE MAP





LEGEND

- APPROXIMATE PROPERTY BOUNDARY
- POINT SOURCE (EPN)
- AREA SOURCE (EPN: NH3FUG)
- AREA SOURCE (EPN: FUG-SF6)
- AREA SOURCE (EPN: MSSFUG)

EPN	Description	UTM (Zone 13) Easting (mE)	UTM (Zone 13) Northing (mN)
CT-1A	Siemens SGT-800 Turbine 1	700,571	3,451,977
CT-2A	Siemens SGT-800 Turbine 2	700,566	3,451,948
CT-3A	Siemens SGT-800 Turbine 3	700,562	3,451,920
CT-4A	Siemens SGT-800 Turbine 4	700,557	3,451,891
CT-5A	Siemens SGT-800 Turbine 5	700,552	3,451,863
CT-6A	Siemens SGT-800 Turbine 6	700,548	3,451,834
CT-7A	Siemens SGT-800 Turbine 7	700,543	3,451,806
CT-8A	Siemens SGT-800 Turbine 8	700,538	3,451,777
CT-9A	Siemens SGT-800 Turbine 9	700,534	3,451,748
CT-10A	Siemens SGT-800 Turbine 10	700,529	3,451,720
CT-11A	Siemens SGT-800 Turbine 11	700,525	3,451,691
CT-12A	Siemens SGT-800 Turbine 12	700,520	3,451,663
CO-1	Wet Surface Air Cooler (WSAC) 1	700,589	3,451,806
CO-2	Wet Surface Air Cooler (WSAC) 2	700,613	3,451,803
CO-3	Wet Surface Air Cooler (WSAC) 3	700,637	3,451,799
CO-4	Wet Surface Air Cooler (WSAC) 4	700,662	3,451,795
CO-5	Wet Surface Air Cooler (WSAC) 5	700,686	3,451,791
EGEN1	Emergency Engine 1	700,596	3,451,885
EGEN2	Emergency Engine 2	700,607	3,451,883
EGEN3	Emergency Engine 3	700,617	3,451,882
EGEN4	Emergency Engine 4	700,628	3,451,880
EGEN5	Emergency Engine 5	700,638	3,451,878

EPN	Description	UTM (Zone 13) Easting (mE)	UTM (Zone 13) Northing (mN)
EGEN6	Emergency Engine 6	700,649	3,451,877
EGEN7	Emergency Engine 7	700,659	3,451,875
EGEN8	Emergency Engine 8	700,670	3,451,873
OILVENT1	Lube Oil Vent 1	700,552	3,451,978
OILVENT2	Lube Oil Vent 2	700,546	3,451,950
OILVENT3	Lube Oil Vent 3	700,540	3,451,921
OILVENT4	Lube Oil Vent 4	700,536	3,451,893
OILVENT5	Lube Oil Vent 5	700,532	3,451,865
OILVENT6	Lube Oil Vent 6	700,527	3,451,835
OILVENT7	Lube Oil Vent 7	700,524	3,451,807
OILVENT8	Lube Oil Vent 8	700,519	3,451,779
OILVENT9	Lube Oil Vent 9	700,515	3,451,751
OILVENT10	Lube Oil Vent 10	700,510	3,451,721
OILVENT11	Lube Oil Vent 11	700,506	3,451,693
TNK-DSL1	Diesel Tank 1	700,599	3,451,855
TNK-DSL2	Diesel Tank 2	700,599	3,451,848
TNK-DSL3	Diesel Tank 3	700,599	3,451,843
NH3FUG	SCR Delivery System Fugitives	700,382	3,450,645
FUG-SF6	Circuit Breaker Sulfur Hexafluoride (SF6) Fugitives	700,382	3,450,645
MSSFUG	ILE Turbine Maintenance Activities	700,382	3,450,645

CLIENT / PROJECT

PACIFICO GW LLC
GW Ranch Energy Center
Pecos County, Texas

TITLE

PLOT PLAN SECTION D

DRAWN BY: O. Fonseka	REQUEST BY: A. Jilla	PROJECT NO. 656475
DWG. DATE: August 2025	PROJECT-MGR: E. Stanko	FIGURE 1-2D

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DRAWING By: Oskar Fonseka - FILE NAME: PacificoPower-PecosCoTX- Area Map-Plot Plans-PFD.dwg

Section 2
Application Materials

This application has been prepared in accordance with 30 TAC Chapter 116, Subchapter B. A completed Excel workbook Form PI-1 General Application (version 6.1) with additional support information is included in this submittal.

2.1 TCEQ Forms and Information

All supporting documentation required for the air quality permit application is provided in this application in accordance with Texas Commission on Environmental Quality (TCEQ) guidance. A discussion of Project emission rates, federal permitting applicability, public notice applicability, professional engineer certification, permit fee and expedited permitting are provided in Sections 2.2 through 2.7 of this section, respectively.

A project description and process flow diagram are presented in Section 3. Emission calculations are described in Section 4 of this application. Identification of applicable regulatory requirements and compliance with these requirements is demonstrated in Section 5 (State Regulatory Requirements) and Section 6 (Federal Regulatory Requirements). A discussion of Best Available Control Technology (BACT) is provided in Appendix C and in the TCEQ Form PI-1 General Application. To assist in the review of this submittal, the following appendices are included:

2.1.1 Administrative Tables and Forms (Appendix A)

Appendix A of this application contains the following TCEQ Permit Application Forms and items required to complete the permit application:

- Form PI-1 General Application; Excel workbook file (version 6.1)
- TCEQ Core Data Form
- Form APD-EXP Expedited Permitting Request
- Form APD-APS Air Permitting Surcharge Payment
- TCEQ Plain Language Summary for New Source Review (NSR) Initial Permits; English and Spanish
- TCEQ Public Involvement Plan (PIP) Form
- TCEQ Table 2 *Material Balance*
- TCEQ Table 6 *Boilers and Heaters*

- TCEQ Table 7(a) *Vertical Fixed Roof Storage Tank Summary*
- TCEQ Table 29 Reciprocating *Engines*
- TCEQ Table 31 Combustion *Turbines*
- TCEQ Table 1F Air *Quality Application Supplement*
- TCEQ Table 2F *Project Emissions Increase Supplement*
- TCEQ Fugitive Emission Calculations; Excel workbook file (version 2.0)

2.1.2 Emission Calculations (Appendix B)

Appendix B of this application contains detailed emission calculations and emission rate summary tables used in support of the permit application.

2.1.3 Best Available Control Technology (BACT) Analysis (Appendix C)

A comprehensive BACT review was conducted for all pollutants in this application, which is provided in Appendix C.

2.1.4 BACT Supporting Documents (Appendix D)

A summary of RACT/BACT/LAER Clearinghouse (RBLC) permit limits for applicable pollutants from similar facilities is provided in Appendix D of this application.

2.1.5 PSD Modeling Protocol and EMEW (Appendix E)

Appendix E of this application contains the PSD Air Dispersion Modeling Protocol and Electronic Modeling Evaluation Workbook (EMEW) for Non-SCREEN3 (version 3.0) submitted in support of the application. Air dispersion modeling using AERMOD was performed for assessing off-property impacts, which is discussed in the PSD Modeling Protocol. A final AQA and modeling report will be submitted after consultation with TCEQ.

2.1.6 Professional Engineer Certification (Appendix F)

Appendix F of this application contains the Professional Engineer (P.E.) Certification.

2.2 Sitewide Emissions to be Authorized

A summary of the MAER for the sources to be permitted is provided in the Unit Types – Emission Rates section of the Form PI-1 General Application, which reflects the site-wide summary of emission sources.

2.3 Federal Permitting Applicability

The Project will be located in Pecos County, Texas, which is classified as an attainment or unclassifiable area for all criteria pollutants. Because the ambient air in the county where the Project will be located is considered to attain the National Ambient Air Quality Standards (NAAQS), federal nonattainment new source review (NNSR) does not apply. PSD applicability is discussed below.

2.3.1 PSD Applicability

The Project is not a fossil fuel-fired steam electric plant and is not a listed PSD source category in 40 Code of Federal Regulations (CFR) §52.21(b)(1)(i) and therefore the PSD applicability threshold is 250 tons per year (tpy) of a regulated non-GHG PSD pollutant. The Project will have potential to emit over 250 tpy of a regulated non-GHG PSD pollutant and is a major stationary source with respect to 40 CFR 52.21(b)(1)(i).

Table 2-1 provides a summary of PSD applicability determination for each non-GHG NSR pollutant. The Project increases are also shown on the respective Table 1F (Air Quality Application Supplement) and Table 2F (Project Emission Increase) provided in Appendix A of this application. As shown, the Project exceeds PSD major source thresholds for VOC and NO_X emissions as ozone precursors, CO, PM_{10}, $PM_{2.5}$, NO_X, and SO_2. Therefore, the Project triggers PSD review for non-GHG NSR regulated pollutants.

Table 2-1 Federal PSD Applicability

Air Contaminant Name	Potential to Emit (PTE) Annual Emissions (tpy)	PSD Major Source Threshold (tpy)	PSD Applicable (Yes/No)
VOC	837.99	250	Yes
CO	5,955.12	250	Yes
NOx	2,830.28	250	Yes
SO_2	397.70	250	Yes
PM_{10}	995.03	250	Yes
$PM_{2.5}$	991.26	250	Yes

Table 2-2 provides a summary of GHG PSD applicability determination. The emissions of CO_2e exceed the 75,000 tpy significance level for GHG; therefore, the Project is required to obtain a PSD permit for GHG. This application also includes the information necessary for TCEQ review of the GHG PSD permit application.

Table 2-2 GHG PSD Applicability

Air Contaminant Name	Potential to Emit (PTE) Annual Emissions (tpy)	PSD Major Source Threshold (tpy)	PSD Applicable (Yes/No)
CO_2e	33,212,284.72	75,000	Yes

2.3.2 Hazardous Air Pollutants (HAPs)

Major source thresholds for hazardous air pollutants (HAPs) are 10 tons or more of any individual HAP, or 25 tons or more of any combination of HAPs. The Project will have the potential to emit (PTE) 10 tons or more of any individual HAP, and 25 tons or more of any combination of HAPs, and therefore this Project is a major source for HAPs. A summary of the individual and aggregate HAP emissions associated with this project is provided in Appendix B, Table B-19.

The Project is subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Source Categories promulgated under 40 CFR Part 63 (Maximum Achievable Control Technologies [MACT] Standards) as detailed in Section 6 of this application. The Project is not subject to any NESHAP promulgated under 40 CFR Part 61 or to FCAA §112(g) permitting.

2.4 Public Notice Applicability

The Project is subject to public notice requirements in accordance with 30 TAC §116.131 for the new permit application. Pacifico will comply with all public notification requirements in accordance with 30 TAC Chapter 39.

2.5 Professional Engineer's Certification

The estimated capital costs associated with the Project are greater than $2,000,000. Therefore, a professional engineer's certification is required and included in Appendix F.

2.6 Permit Fee

The permit fee for this Project is $75,000. The capital costs associated with the Project are greater than $2,000,000. Therefore, pursuant to 30 TAC §116.141(d), a fee of $75,000 is being submitted. The permit fee has been paid online through the TCEQ ePay system during the online submission via the State of Texas Environmental Electronic Reporting System (STEERS) for E-Permitting.

2.7 Request for Expedited Processing

Pursuant to 30 TAC §§101.600 – 101.602, Pacifico respectfully requests expedited processing of this permit application. The Project represents a significant capital investment that will benefit the economy of the State by creating employment and local tax revenues in the Project area and by supporting Texas's role as a leader in data center development, which is identified as a National priority. As required, a completed Form APD-EXP Expedited Permit Request, Form APD-APS Air Permitting Surcharge Payment Form, and payment in the amount of $20,000 for the expedited surcharge fee is included with this request.

Section 3
Process Description

With this application, Pacifico proposes to construct and operate a new natural gas-fired power plant consisting of simple cycle combustion turbine generators (CTGs). The CTGs will produce electricity to power an on-property data center campus. The electricity produced will be used on-site and the Project will not be capable of selling electricity to or purchasing it from the local utility power grid. The Project will be constructed as fully independent, operating in islanding mode.

The Project will consist of the installation of 35 combustion turbines and ancillary equipment. The Project's nominal generation capacity will be approximately 5,000 MW. The turbines will be fired exclusively with pipeline quality natural gas.

The Project will utilize an approximately 1,840 MW (920 MWh) battery energy storage system (BESS) to support the variable nature of the data center load. The BESS will support data center demand variances throughout routine operations, will provide short-term backup response in the event of an unplanned generation system outage, and will be charged to support the CTG and data center startup and shutdown (SUSD) activities. There will be no air emissions associated with the BESS.

The Project will consist of the following primary equipment:

- Fourteen (14) large-frame combustion turbines detailed in **Section 3.1.1**, which are equipped with Selective Catalytic Reduction (SCR) and an oxidation catalyst system for emissions control. The large-frame gas turbines to be installed will be the Doosan H-Class DGT6-300H S2, GE H-Class 7HA.03, Mitsubishi J-Class M501JAC, Siemens HL-Class SGT6-9000HL, or equivalent natural gas-fired combustion turbines that comply with the proposed maximum allowable emission limits and operating specifications; and
- Twenty-one (21) Siemens SGT-800 combustion turbines detailed in **Section 3.1.2**, rated at nominal capability of 62.5 MW each, which are equipped with SCR and an oxidation catalyst system for emissions control.

Ancillary equipment and emission sources associated with the Project include:

- Two (2) natural gas-fired supplemental Wartsila engine generators used for supplemental power generation, as needed, and to support the CTG startup and BESS charging. Each engine is rated at nominal capability of 18.8 MW;

- Five (5) dew point heaters with heat input capacity of 8.8 MMBtu/hr each, and fourteen (14) dew point heaters with heat input capacity of 11.1 MMBtu/hr each, operating on pipeline quality natural gas (19 total), which will be used to condition the natural gas supply to the gas-fired turbines;
- Fifteen (15) ultra-low-sulfur diesel (ULSD) emergency generator engines (RICE) rated at approximately 4,023 horsepower (HP) each, which will be used for emergency power generation;
- Two (2) ULSD emergency fire suppression system pumps rated at approximately 305 HP each;
- Four (4) ULSD storage tanks with a capacity of 25,000 gallons each, and three (3) ULSD storage tanks with a capacity of 12,000 gallons each (7 total);
- Nineteen (19) hybrid Wet Surface Air Coolers (WSAC) with drift eliminators;
- Combustion lube oil recirculation systems with lube oil vents for each CTG;
- Piping component fugitive emissions from the natural gas system and ammonia system piping components;
- Maintenance activities on the turbines; and
- Sulfur Hexafluoride (SF_6) insulated electrical equipment.

Details regarding the equipment to be permitted follow. A process flow diagram (**Figure 3-1**) is included in this section.

3.1 Combustion Turbine Generators

The main components of the CTGs consist of a compressor, combustor, turbine, and generator. Filtered ambient air is drawn into the compressor section of the CTG. During periods of warm to hot ambient temperatures, the temperature of the inlet air to the CTG may be lowered by using dry air inlet coolers to increase the mass air flow through the turbine and maintain turbine power output. There are no air emissions associated with the dry inlet air coolers. The plant will also install up to 19 hybrid WSAC, which are closed-loop evaporative cooling and condensing systems that provide indirect cooling of the CTG lube oil systems, hydraulic oil systems, and generators.

Natural gas is mixed with the compressed inlet air and combusted in the combustor section of the CTG. Dry low-NOx (DLN) combustors are used to reduce the NOx emissions generated in the combustion process. Hot exhaust gases then enter 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.

A conventional SCR system, using a 19-percent solution of aqueous ammonia as the reagent, will be used to control NO_x emissions from the turbines. The systems will be comprised of aqueous ammonia storage and handling equipment, ammonia injection grids, and catalysts beds. The ammonia injection grids and the SCR catalyst beds will be installed in a transition section between the turbine and exhaust stack.

The turbines will be equipped with an oxidation catalyst system to minimize CO, VOC, and organic HAP emissions. The oxidation catalyst system will be comprised of catalyst bed modules and will be installed at the location where exhaust temperatures will optimize CO and VOC reduction reactions.

3.1.1 Large-frame Combustion Turbines

Pacifico is seeking authorization to construct and operate fourteen (14) large-frame natural gas-fired combustion turbines. As discussed in Section 1.2 (Facility Overview) the OEM for the large-frame combustion turbines has not been selected due to uncertainty in the availability of the gas turbines. As such, a worst-case envelope approach was used to establish the upper bound of potential emissions for the large-frame turbine sources to be permitted, representing the highest possible operating and emissions scenario for each air pollutant. Four (4) potential turbine manufacturers and models were used to establish the large-frame gas turbine envelope:

- Doosan H-Class DGT6-300H S2 turbine with a nominal gross baseload electric power output at ISO conditions of approximately 386 MW;
- GE H-Class 7HA.03 turbine with a nominal gross baseload electric power output at ISO conditions of approximately 430 MW;
- Mitsubishi J-Class M501JAC turbine with a nominal gross baseload electric power output of approximately 453 MW; and
- Siemens HL-Class SGT6-9000HL turbine with a nominal gross baseload electric power output of approximately 440 MW.

The calculations described in Section 4 and Appendix B include manufacturer-specific emissions data for each large-frame turbine make/model. Pacifico evaluated multiple gas turbine firing cases (shown in **Appendix B-3**) for development of the upper bound or "envelope" of potential emissions. For each pollutant, the highest expected emission rate from each operating scenario across the four (4) large-frame turbine make/models was selected, representing the highest emitting operating and emissions scenario. This approach ensures that the envelope uses the highest firing rate and the highest emission concentrations and factors for

each pollutant. While this is an unrealistically conservative approach, it creates a conservative basis for establishing the Project PTE and ensures that modeling has been done with the highest potential emission rates to show compliance with applicable air quality standards. Pacifico requests that the permit include a condition requiring a permit alteration to conform (decrease) allowable emissions to the profile presented by the ultimately selected turbine design.

3.1.2 Siemens SGT-800 Combustion Turbines

Pacifico is seeking authorization to construct and operate twenty-one (21) Siemens SGT-800 combustion turbines. The turbines are each rated at nominal capability of 62.5 MW, and each will be operated with SCR and oxidation catalyst system for emissions control.

3.2 CTG Startup and Shutdown Activities

Startup and Shutdown (SUSD) of the combustion turbines will be part of the planned operations of GW Ranch. For the turbines, Pacifico proposes to use the following language for the startup and shutdown definitions:

- A planned startup is defined as the period starting with first combustion of fuel and ending when the combustion turbine output reaches minimum emissions compliant load (MECL) and compliance with the routine emission limits is achieved, which can vary based on ambient conditions. A planned startup shall not exceed 60 minutes.
- A planned shutdown is defined as the period from MECL to flame out. A planned shutdown shall not exceed 60 minutes.

During planned SUSD periods, emissions may be released from the combustion turbines at higher rates than during normal operations. During startup, higher NO_X and CO emissions may be produced when the turbines are outside the temperatures and performance mode where the catalytic control systems can be used. Additionally, higher CO and VOC emissions during SUSD may result due to less complete combustion as the CTG transitions to its normal operating mode. As such, this application includes proposed SUSD emissions rates for NO_X, CO, and VOC emissions from the CTG sources.

To ensure operational independence, the Project will incorporate black-start capability, enabled by the supplemental engine generators and, where feasible, the BESS system. In a black-start and initial plant startup scenario, the supplemental generator will be activated to feed power to the first CTG, which ramps up to the MECL sufficient for startup of the next CTG in sequence. This sequence is repeated until all CTGs are online and operating in normal mode. Given the periodic SUSD activities and startup sequencing, the air dispersion modeling has evaluated the following two scenarios for SUSD events:

1. No more than two (2) large-frame CTG units and 10 Siemens SGT-800 CTG units will be in SU mode during a 1-hour period. The remaining 12 large-frame CTG units and 11 Siemens SGT-800 CTG units are operating in normal mode.
2. No more than three (3) large-frame CTG units will be in SU mode during a 1-hour period. The remaining 11 large-frame and 21 Siemens SGT-800 CTG units are operating in normal mode.

3.3 Supplemental Generators

The Project will include two (2) supplemental generators that will be used for supplemental power generation, as needed, and to support the CTG startup activities and charging the BESS. The supplemental generators are two (2) Wartsila 18V50SG, which is a four-stroke, spark-ignited engine generating set, and will be fired exclusively with pipeline quality natural gas. The supplemental generators are rated at a nominal capability of 18.8 MW of electrical power each, and the annual emissions are based on approximately 1,000 hours per year of supplemental power generation.

3.4 Natural Gas-Fired Dew Point Heaters

Nineteen (19) natural gas-fired auxiliary fuel gas heaters will be operated to heat the incoming natural gas fuel to prevent freezing of the gas regulating valves under certain gas operating conditions, and to ensure moisture does not form in the inlet gas lines. The heaters will be fired exclusively with pipeline quality natural gas and will use ultra-low NOx burners to control NOx emissions. Two sizes of heaters will be used, as follows:

- Five (5) dew point heaters with a nominal heat input capacity of 8.8 MMBtu/hr each will be used to support the Siemens SGT-800 combustion turbine operations; and
- Fourteen (14) dew point heaters with a nominal heat input capacity of 11.1 MMBtu/hr each will be used to support the large-frame (H-Class, HL-Class, or J-Class) combustion turbine operations.

3.5 Emergency Engines

The Project will include fifteen (15) ULSD emergency generator engines to provide electric power during emergencies. The emergency generator sets have a standby rating of 3,000 kW (4,023 HP), each certified to EPA Tier 2 emission standards. The engines will be operated for a maximum of 100 hours per year per engine for non-emergency purposes, including maintenance and readiness testing.

The Project will include two (2) ULSD engine-driven emergency fire suppression system pumps to provide fire protection for the plant. The fire system pump engines have a standby rating of

227 kW (305 HP), each certified to EPA Tier 3 emission standards. The engines will be operated for a maximum of 100 hours per year per engine for maintenance and readiness testing.

3.6 ULSD Storage Tanks

The Project will include four (4) ULSD storage tanks with a capacity of 25,000 gallons each, and three (3) ULSD storage tanks with a capacity of 12,000 gallons each to store diesel fuel for emergency generator engines and firewater pumps.

3.7 Hybrid Wet Surface Air Coolers (WSAC)

The Project will utilize hybrid WSAC systems as part of the closed loop auxiliary cooling water system, which provides for indirect cooling of the CTG lube oil systems, hydraulic oil systems, and generators. The auxiliary cooling system consists of pumps that circulate the closed-loop cooling medium (water/glycol mixture) through the tube-side of a WSAC with wet/dry heat exchanger coils where the heat is rejected to the air when the WSAC is operated in "dry-mode" or assisted with evaporation of spray water when operated in "wet-mode." The cooling medium passing through the heat exchanger coils cools the lube and hydraulic oil and generator coolers, and is returned to the auxiliary cooling water pump suction.

Auxiliary cooling water flows through the wet/dry heat exchanger coils; when the ambient dry bulb temperature is low, the auxiliary cooling water is directly cooled by air, and when the ambient temperature is high, the WSAC will spray water over the heat exchanger tube bundles and provide additional heat rejection from evaporation of the spray water.

The WSAC systems use electric motor-driven fans to move air over the tube bundles during "dry-mode" operation. During "wet mode" operation, water is sprayed over the tube bundles to increase cooling through evaporation. The heat removed from the CTG auxiliaries will be discharged to the atmosphere by heating the air and evaporating some of the cooling water. High efficiency drift eliminators will reduce drift (the fine mist of water droplets entrained in the warm air leaving the WSAC systems) to 0.001-percent of the circulating water flow. The WSAC systems are considered hybrid cooling systems because they have the ability to operate in dry mode, without water spray, during the cooler months. The WSAC will be operating in wet mode when ambient temperatures are above 65°F.

- Five (5) WSAC units with drift eliminators will be used to support the Siemens SGT-800 combustion turbine operations; and
- Fourteen (14) WSAC units with drift eliminators will be used to support the large-frame (H-Class, HL-Class, or J-Class) combustion turbine operations.

Additionally, dry inlet-air coolers (non-water based) will be used to cool the inlet air of the gas turbines in order to improve the combustion turbine power output and heat rate. There are no emissions associated with the dry inlet air coolers.

3.8 Combustion Lube Oil Recirculation System Vents

The combustion turbines will be equipped with dedicated closed-loop lube oil recirculation systems to lubricate the moving parts. Lubricating oil will be circulated through the turbine's machinery from the oil sump, and the heating of recirculating lube oil in the turbine and generator housings will create oil vapor and oil droplets in the oil reservoir compartments. Emissions of condensed lube oil droplets from the lube oil systems will be exhausted through vapor extraction vents serving the units, and these emissions will be controlled with mist eliminators.

3.9 Natural Gas System

Natural gas will be delivered to the site via pipeline, metered, and piped to the CTGs. Fugitive emissions from the natural gas piping components (i.e., valves, flanges) include emissions of methane (CH_4), ethane (C_2H_6), VOC, and carbon dioxide (CO_2) due to potential equipment leaks.

3.10 Ammonia SCR Delivery System

Aqueous ammonia at a concentration of 19-percent will be stored in pressurized tanks that will be designed to maintain sufficient pressure to prevent a loss of ammonia to the atmosphere during normal operations. The system will be equipped with pressure relief valves for safety reasons to prevent an over-pressure condition. Aqueous ammonia will be delivered by tanker truck to the pressurized tanks. During filling of the tank, ammonia vapors will be returned to the tanker truck as the storage tank is filled. Piping and fittings associated with the tank and other components of the system delivering ammonia to the SCR system will be sources of fugitive emissions.

3.11 Maintenance Activities

Pacifico may perform the following planned maintenance activities on the turbines, which are inherently low emitting (ILE) activities that may generate fugitive emissions:

- Air intake filter maintenance;
- Continuous emissions monitoring system (CEMS) calibrations;
- Inspection, repair, replacement, adjusting, testing, and calibration of analytical equipment and process instrumentation including site glasses, meters, gauges;

- Management of sludge;
- Small equipment maintenance – low vapor pressure VOC;
- Small equipment maintenance – ammonia;
- Gaseous fuel venting during turbine shutdown/maintenance and small equipment and fugitive component repair/replacement; and
- Online and off-line turbine washing.

Emissions from the planned ILE maintenance activities associated with equipment are identified as EPN: MSSFUG.

Pacifico may also perform combustion turbine optimization, tuning and testing; and online turbine washing, which are planned maintenance activities that release emissions from the CTG stacks. Maximum hourly and total annual emissions associated with combustion turbine optimization, tuning and testing; and online turbine washing are no higher than the emission rates requested in this application for normal or planned SUSD operations, and are already included in the MAER estimated for the combustion turbines.

3.12 Sulfur Hexafluoride Insulated Equipment

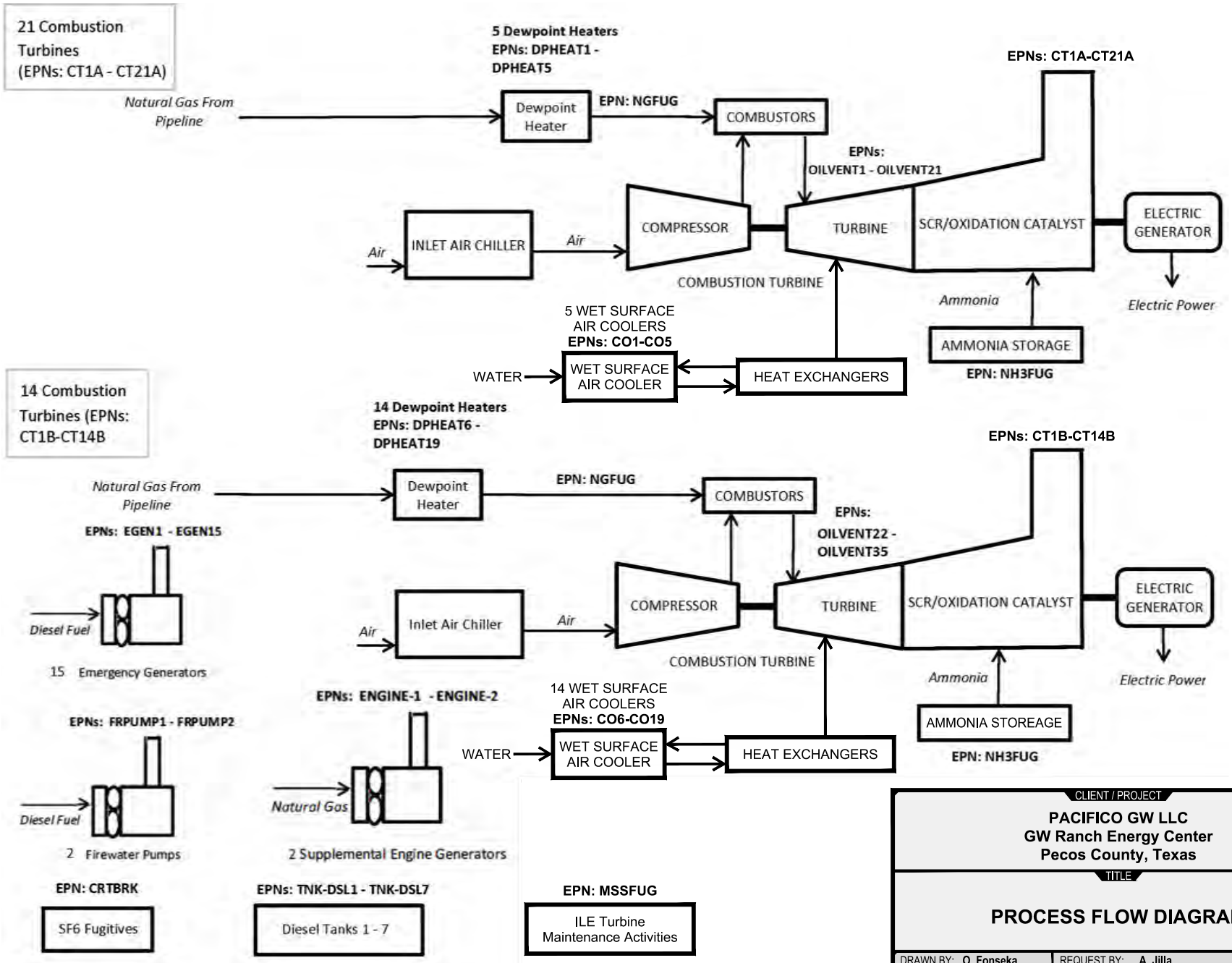
Certain electrical equipment such as generator circuit breakers and high voltage breakers associated with the units will be insulated with sulfur hexafluoride (SF_6). Sulfur hexafluoride (SF_6) is a colorless, odorless, non-flammable gas. It is a synthetic fluorinated compound that has an extremely stable molecular structure. The unique chemical properties of SF_6 make it an efficient electrical insulator. The gas is used for electrical insulation, arc quenching, and current interruption in high-voltage electrical equipment. Sulfur hexafluoride (SF_6) is only used in sealed and safe systems, which under normal circumstances do not leak gas. The circuit breakers associated with the units are estimated to contain 124,600 pounds of SF_6. The circuit breakers will have a low-pressure alarm and a low-pressure lockout. The alarm will alert operating personnel of any leakage in the system and the lockout prevents any operation of the breaker in the event there is a lack of "quenching and cooling" SF_6 gas.

3.13 Project Construction and Commissioning

The Project will be constructed and commissioned in phases to support the start-up and growth of the data centers over several years. The Project development plan targets commissioning the plant in five (5) power blocks, one approximately every six to twelve months, which will be dependent on the availability and delivery of the CTGs and the buildout of the data centers.

Pacifico will comply with the required notifications related to reporting on construction progress in accordance with 30 TAC § 116.115(b)(2)(A), start-up notification requirements for the commencement of operations for each unit of phased construction (which may involve units commencing operations at different times in accordance with 30 TAC §116.115(b)(2)(B)), and the regulatory requirements for continuous construction in accordance with 30 TAC §116.120(a).

Commissioning activities will include combustion shakedown and initial operational and contractual testing and tuning to ensure the safe, efficient, and reliable operation of the electric generating facilities. Shakedown is the period beginning with initial CTG startup and ending no later than initial performance testing to ensure the performance specifications and concentration limits of the Project are met. The one-time commissioning and shakedown period for each CTG will not exceed the time period for performance testing as specified in 40 CFR § 60.8. The proposed performance specifications, concentration limits, and emission rate limits do not apply to commissioning activities during which initial operational and contractual testing, tuning, boil-out, shakedown, and other activities may occur during this one-time period.



CLIENT / PROJECT

PACIFICO GW LLC
GW Ranch Energy Center
Pecos County, Texas

TITLE

PROCESS FLOW DIAGRAM

DRAWN BY: **O. Fonseka**	REQUEST BY: **A. Jilla**	PROJECT NO. **656475**
DWG. DATE: **August 2025**	PROJECT-MGR: **E. Stanko**	

TRC
11767 KATY FREEWAY, SUITE 850
HOUSTON, TEXAS 77079
PHONE: 281-616-0100
TRCcompanies.com

FIGURE **3-1**

Section 4
Basis for Emission Calculations

This section presents the basis and emission calculation methodologies for the sources to be authorized in this permit application. Detailed calculations are provided in Appendix B of this application. The TCEQ Form PI-1 General Application is included with this application, which provides the maximum hourly and annual emission rates in pounds per hour (lb/hr) and tons per year (tpy), respectively, in the Unit Types – Emission Rates section.

4.1 Combustion Turbines (EPNs: CT1-A through CT-21A, and CT-1B through CT1-14B)

The Project will include:

- Twenty-one (21) Siemens SGT-800 combustion turbines (EPNs CT-1A through CT-21A).
- Fourteen (14) large-frame combustion turbines (EPNs CT-1B through CT-14B). The large-frame gas turbines to be installed will be the Doosan H-Class DGT6-300H S2, GE H-Class 7HA.03, Mitsubishi J-Class M501JAC, Siemens HL-Class SGT6-9000HL, or equivalent CTGs that comply with the proposed maximum allowable emission limits calculated in this section.

The CTGs will be fired with pipeline-quality natural gas. Products of combustion from the CTGs will include NOx, CO, VOC, SO_2, PM (which includes PM_{10} and $PM_{2.5}$), and sulfuric acid mist (H_2SO_4). The CTGs will also emit NH_3 as a result of the SCR technology used to control NOx emissions to meet Best Available Control Technology (BACT) requirements. NH_3 from the SCR systems will react with H_2SO_4 to form ammonium sulfate [$(NH_4)_2SO_4$] particulates (PM) in the SCR and catalyst bed. The CTGs' combustion emissions will vent to the atmosphere via the CTG exhaust stacks.

Emission calculations were based, primarily, on data supplied by the turbine manufactures and on the application of BACT. The potential emissions from the large-frame CTGs were quantified using an "envelope" approach that considered (4) turbine make/models: Doosan DGT6-300H S2, GE 7HA.03, Mitsubishi M501JAC, and Siemens SGT6-9000HL. The envelope approach establishes the upper bound of potential emissions per pollutant for the sources to be permitted, representing the highest possible operating and emissions scenario to allow for selection of a turbine OEM for installation that meets the proposed permit emission limits and operating specifications.

For the large-frame CTGs, this application presents emissions from both: (1) the worst-case envelope using the highest firing rate and emissions generating scenarios from each OEM, and (2) the maximum emissions from each turbine OEM individually to demonstrate the envelope is conservative and establishes the maximum allowable emissions for the sources to be permitted. The worst-case envelope emissions are proposed for the large-frame CTG MAER limits. Pacifico also requests a permit condition that requires it to apply for a permit alteration to decrease allowable emissions as needed to conform to the performance of the turbine vendor(s) that are eventually selected.

For the Siemens SGT-800 CTGs, this application presents maximum emissions that were calculated using data provided by Siemens and the application of BACT.

For all CTGs, maximum short-term emissions during periods other than SUSD (including during periods of full and reduced load operations) were calculated at various ambient conditions and load scenarios for each turbine OEM. Additionally, maximum annual emissions due to the combined contributions from all modes of operation were calculated based on maximum emission rates estimated for normal and SUSD operations and the frequencies of SUSD operations.

The following is a summary of emissions performance assumptions used in calculating the maximum mass emission rates associated with normal, steady-state operation of the turbines:

- The CTGs will be equipped with DLN combustors and SCR to achieve controlled emissions of NO_X to 2.5 parts per million by volume, dry basis (ppmvd) at 15% O_2, calculated on a three-hour basis. This low NO_X emission limit can be achieved at an ammonia slip level of 5.0 ppmvd at 15% O_2 (annual average) and the maximum hourly ammonia slip level is 10.0 ppmvd at 15% O_2.
- Each turbine will be equipped with an oxidation catalyst to limit emissions of organic pollutants. VOC will be limited to concentrations of 2.0 ppmvd at 15% O_2 (as methane), calculated on a three-hour basis, as provided by the vendor.
- NH_3 slip from the SCR system will be limited to short-term concentrations of 10 ppmvd at 15% O_2, calculated on a three-hour basis, and 5 ppmvd at 15% O_2 on an annual basis, as provided by the vendor.
- For the large-frame CTGs, CO will be limited to concentrations of 9.0 ppmvd at 15% O_2, calculated on a three-hour basis. For the Siemens Energy SGT-800 CTGs, CO will be limited to concentrations of 5.0 ppmvd at 15% O2, on a 3-hour average.
- Natural gas fuel sulfur content will be limited to 0.5 grains per 100 standard cubic foot (scf), which will limit turbine emissions of SO_2, H_2SO_4, and particulate matter (PM, PM_{10} and $PM_{2.5}$).

- The PM, PM_{10} and $PM_{2.5}$ emissions are based on vendor-provided emission rates, which include both the front half and back half formation (filterable and condensable) as well as a secondary formation of ammonium sulfate $(NH_4)_2SO_4$.
- H_2SO_4 emissions were calculated using a vendor-provided estimate of a 10% molar conversion ratio of SO_2 to SO_3- in the SCR and catalyst bed, based on data provided by vendor and conservatively assuming each SO_3- molecule forms one H_2SO_4 molecule. Additionally, it was assumed each SO_3- molecule may form 1 ammonium sulfate $(NH_4)_2SO_4$ molecule, which is a particulate. This was added to the PM emission factor from the vendor for a conservative estimate of total particulate emissions.
- Formaldehyde emissions were calculated based on an outlet stack concentration of 91 parts per billion by volume, dry basis (ppbvd) at 15% O_2, as required by 40 CFR Part 63 Subpart YYYY Table 1.
- The VOC speciated emissions were calculated based on AP-42 Section 3.1, Stationary Gas Turbines (April 2000).

The maximum hourly emissions were calculated based on the maximum heat input rating of turbines, and annual emissions were based on 8,760 annual operating hours.

- Siemens SGT-800 CTG performance data and emissions at various loads, ambient temperatures, and operating conditions are provided in **Appendix B-1**, and the emission calculations for the Siemens SGT-800 CTGs are provided in **Appendix B-2**.

- Turbine performance data and emission at various loads, ambient temperatures, and operating conditions for the large-frame turbine OEMs are provided in **Appendix B-3**. The emission calculations for the large-frame turbines (worst case envelope) are provided in **Appendix B-4a**. Emissions calculations for each large-frame turbine OEMs individually are provided in **Appendix B-4b through Appendix B-4e**.

During planned SUSD periods, emissions may be released from the combustion turbines at higher rates than during normal operations. Higher NO_X and CO emissions may be produced when the turbines are outside the temperatures and performance mode where the catalytic control systems can be used. Higher CO and VOC emissions during SUSD may result due to less complete combustion as the CTG transitions to its normal operating mode. The calculation of planned SUSD emissions from the CTGs is shown in **Appendix B-5** and **B-6**.

For the worst-case hourly emissions, including SUSD emissions, the startup and shutdown times were used to calculate the remaining time in a one-hour period where normal operating emissions could occur. Normal operating emissions were then pro-rated for this period and added to the SUSD to calculate a worst-case hour. Annual emissions resulting from SUSD operations were added to the normal annual operating emissions to calculate the total PTE.

EPA Greenhouse Gas Reporting Program (GHGRP) emission factors were used to calculate emissions of CO_2, CH_4, and N_2O using the maximum hourly firing rate and annual operating hours. CO_2 emissions from the natural gas-fired turbines are calculated using the emission factors (kg/MMBtu converted to lb/MMBtu) for natural gas from Table C-1 to Subpart C of Part 98 of the EPA's Mandatory GHG Reporting Rules. CH_4 and N_2O emissions from the turbines are calculated using the emission factors (kg/MMBtu converted to lb/MMBtu) for natural gas from Table C-2 of the Mandatory GHG Reporting Rules. The global warming potential (GWP) factors used to calculate CO_2e emissions are based on 40 CFR Part 98, Table 2, GHGs with Revised GWPs for Table A-1 (EPA 2013 Revisions to the GHG Reporting Rule).

GHG emission calculations for the CTGs and the GHG emissions summary for all GHG sources are provided in **Appendix B-16**.

4.2 Supplemental Generators (EPNs: ENGINE-1 and ENGINE-2)

The Project will include two (2) natural gas-fired supplemental engine generators rated at a nominal capability of 18.8 MW (25,238 HP) each. Emission calculations were performed for NO_X, CO, VOC, SO_2, PM, PM_{10}, $PM_{2.5}$, and GHG emissions associated with these engines. The maximum hourly emission rates are based on the proposed maximum rated power of the engines. The NO_X emissions are based on the equipment vendor guaranteed emission factor. The engine will meet 40 CFR Part 60 Subpart JJJJ standards of performance, and the CO and VOC emissions are based on Subpart JJJJ emission factors. The PM, PM_{10}, $PM_{2.5}$, and SO_2 emissions are based on emission factors from AP-42 Chapter 3.2 for Natural Gas-fired Reciprocating Engines (October 2024), Table 3.2-2. Annual emissions were calculated based on the maximum heat input and estimated annual operating hours. Emission calculations for the supplemental generators (EPNs: ENGINE-1 and ENGINE-2) are provided in **Appendix B-7**.

EPA GHGRP emission factors are used to calculate emissions of CO_2, CH_4, and N_2O using the maximum hourly heat input and annual operating hours. CO_2 emission calculations are calculated using the emission factors (kg/MMBtu converted to lb/MMBtu) for natural gas from Table C-1 to Subpart C of Part 98 of the EPA Mandatory GHG Reporting Rules. CH_4 and N_2O emissions from the engines are calculated using the emission factors (kg/MMBtu converted to lb/MMBtu) for natural gas from Table C-2 of the Mandatory GHG Reporting Rules. The GWP factors used to calculate CO_2e emissions are based on Table A-1 of the Mandatory GHG Reporting Rules. GHG emission calculations for the supplemental generators are provided in **Appendix B-16**.

4.3 Natural Gas-Fired Dewpoint Heaters (EPNs: DPHEAT1 – DPHEAT19)

Dew point heaters will be used to condition the natural gas supply to the gas-fired turbines. The dew point heaters are fueled by natural gas with a maximum heat input of 8.8 MMBtu/hr for dew point heaters 1 through 5 (EPNs: DPHEAT1-DPHEAT5) and 11.1 MMBtu/hr for dew point heaters 6 through 19 (EPNs: DPHEAT6-DPHEAT19).

Emission calculations were performed for NO_X, CO, VOC, SO_2, PM, PM_{10}, $PM_{2.5}$, and GHG emissions associated with the gas-fired heaters. Combustion emissions associated with fuel usage are calculated using TCEQ-published BACT and AP-42 emission factors from Section 1.4 (Natural Gas Combustion), Tables 1.4-1 and 1.4-2, dated July 1998. EPA document AP-42 emission factors are used to calculate emissions of SO_2, VOC, PM, PM_{10}, and $PM_{2.5}$. Short-term emissions are based on the maximum firing rate of the heaters. Annual emissions are based on the maximum firing rate of the heaters and annual hours of operation. For PM emissions it is assumed that all PM emissions are equal to or less than $PM_{2.5}$. The VOC speciated emissions are calculated based on AP-42 emission factors from Section 1.4 (Natural Gas Combustion), Tables 1.4-3, dated July 1998. Emission calculations for the dew point heaters are provided in **Appendix B-8**.

EPA GHGRP emission factors are used to calculate emissions of CO_2, CH_4, and N_2O using the maximum hourly firing rate and annual operating hours. CO_2 emissions from the natural gas-fired dew point heaters are calculated using the emission factors (kg/MMBtu converted to lb/MMBtu) for natural gas from Table C-1 to Subpart C of Part 98 of the Mandatory GHG Reporting Rules. CH_4 and N_2O emissions from the dew point heaters are calculated using the emission factors (kg/MMBtu converted to lb/MMBtu) for natural gas from Table C-2 of the Mandatory GHG Reporting Rules. The GWP factors used to calculate CO_2e emissions are based on 40 CFR Part 98, Table 2, GHGs with Revised GWPs for Table A-1 (EPA 2013 Revisions to the GHG Reporting Rule). GHG emission calculations for the dew point heaters are provided in **Appendix B-16**.

4.4 Emergency Engines (EPNs: FPUMP1 – FPUMP2, and EGEN1 – EGEN15)

Reciprocating internal combustion engines (RICE) are used to pump water during emergency fires and provide emergency power. The proposed Project will include fifteen (15) emergency generators rated at approximately 4,023 HP each, and two (2) firewater pumps rated at approximately 305 HP each. Emission calculations were performed for NO_X, CO, VOC, SO_2, PM, PM_{10}, $PM_{2.5}$, and GHG emissions associated with these engines. The maximum hourly emission rates are based on the proposed maximum rated power of the engines. The NO_X, CO, VOC, PM, PM_{10}, and $PM_{2.5}$ emissions were based on vendor provided emission factors. The generator engines will be fueled by ULSD fuel. For the fire pump engine SO_2 emission estimate,

calculations were based on the maximum hourly fuel usage rate (in gallons per hour) using ULSD fuel oil at no greater than 0.0015% sulfur by weight (or 15 ppm). For PM emissions it was assumed that all PM emissions are equal to or less than $PM_{2.5}$. Annual emissions were calculated based on the maximum heat input and annual operating hours, which are 100 hours per year of non-emergency use. Emission calculations for the emergency generator engines (EPNs: EGEN1 – EGEN15) and firewater pumps (EPNs: FPUMP1 – FPUMP2) are provided in **Appendix B-9**.

EPA GHGRP emission factors are used to calculate emissions of CO_2, CH_4, and N_2O using the maximum hourly heat input and annual operating hours. CO_2 emission calculations are calculated using the emission factors (kg/MMBtu converted to lb/MMBtu) for Distillate Fuel Oil No. 2 from Table C-1 to Subpart C of Part 98 of the Mandatory GHG Reporting Rules. CH_4 and N_2O emissions from the diesel-fired engine are calculated using the emission factors (kg/MMBtu converted to lb/MMBtu) for petroleum from Table C-2 of the Mandatory GHG Reporting Rules. The GWP factors used to calculate CO_2e emissions are based on Table A-1 of the Mandatory GHG Reporting Rules. GHG emission calculations for the emergency generator engines and firewater pumps are provided in **Appendix B-16**.

4.5 Hybrid Wet Surface Air Coolers (EPNs: CO-1 through CO-19)

The estimated PM, PM_{10}, and $PM_{2.5}$ emissions from the hybrid WSAC are based on the methodology described in AP-42, Section 13.4 except that a 0.001-percent liquid drift rate was used, in accordance with BACT and the manufacturer's design assurance, as the liquid drift factor. The density of water, cooling water circulation rate, and percent liquid drift rate are used to estimate the mass of water drifting to the atmosphere. The mass of water is multiplied by the total dissolved solids (TDS) to estimate particulate emissions. As the water utilized for cooling is derived from atmospheric condensation, the TDS utilized represents a conservative estimate of the maximum after long-term recycling. The maximum hourly and annual emissions are based on the maximum cooling water circulation rate and the estimated TDS, and an operating schedule of 8,760 hour per year.

The PM_{10} and $PM_{2.5}$ subset of particulate emissions from the WSAC, which are analogous to cooling towers, were calculated using the methodology presented in the paper by Reisman and Frisbie; "Calculating Realistic PM_{10} Emissions from Cooling Towers." The PM size distribution in this paper is adjusted for the 3,000 parts per million (ppm) TDS value, to obtain the percent of the mass emissions that are equal to or smaller than PM_{10}, and the percent of the mass emissions that are equal to or smaller than $PM_{2.5}$. The mass fraction of PM_{10} and $PM_{2.5}$ emissions is then applied to the PM emission rates to estimate PM_{10} and $PM_{2.5}$ emissions. The evaporative cooling and condensing systems provide indirect cooling, and there is no VOC leakage into the

non-contact design systems. Detailed emission calculations for the hybrid WSAC (EPNs: CO-1 through CO-19) and the solid particulate size distributions are provided in **Appendix B-10**.

4.6 Lube Oil Recirculation System Vents (EPNs: OILVENT1 – OILVENT35)

The CTGs will be equipped with dedicated closed-loop lubrication systems. Lubricating oil will be circulated through the turbines' machinery from the oil sump, and the heating of recirculating lube oil in the turbine and generator housings will create oil vapor and oil droplets in the oil reservoir compartments. Emissions of the droplets will be controlled by a mist eliminator. The calculation of emissions from the lube oil vents is based on loss rate of lube oil in gas turbine reservoirs of 0.2 gallon per day of oil per turbine. Per engineering estimates, 30-percent of these losses are due to loss through the vent, while the remainder are losses to leaks or other non-volatile losses. The calculated hourly emissions are based on the daily emission rate divided by 24 hours per day. Emission calculations from the lube oil vents (EPNs: OILVENT1 – OILVENT35) are provided in **Appendix B-11**.

Lube oil mist will be generated, and the corresponding mist eliminator fan will be operated concurrently with turbine operation, including during startup and shutdown, plus additional time after turbine operation. When the gas turbine does not operate for extended periods such that lube oil is cooled to near-ambient temperatures, mist eliminators may be shut down. During this time, vapor breathing and filling losses may occur from each oil reservoir. These latter losses are significantly less than the emission rates calculated in **Appendix B-11**.

4.7 Natural Gas System Fugitive Emissions (EPN: NGFUG)

Fugitive emissions will be generated from the natural gas feed system (EPN: NGFUG). Natural gas piping component equipment leak fugitive emissions were calculated using estimated component counts and emission factors from EPA-453/R-95-017, November 1995, Table 2-4, Oil and Gas Operation Average Emission Factors. The component counts and average composition were conservatively estimated from process flow diagrams and engineering counts. Speciation was calculated based on fuel gas analysis. Estimated emissions from fugitive components are included in **Appendix B-12**.

4.8 Ammonia SCR Delivery System Fugitive Emissions (EPN: NH3FUG)

Piping and fittings associated with the storage tanks and other components of the system delivering ammonia to the SCR systems will be sources of fugitive emissions (EPN: NH3FUG). Equipment leak fugitive emissions from equipment components were calculated using estimated component counts and emission factors for Synthetic Organic Chemical Manufacturing Industry (SOCMI) without (w/o) ethylene factors from Air Permit Technical Guidance for Chemical Sources: Fugitive Guidance (APDG 6422), dated June 2018. Component

counts and average composition were calculated from process flow diagrams and engineering counts. Emissions from fugitive components are included in **Appendix B-13**.

4.9 ULSD Tanks (EPNs: TNK-DSL1 - TNK-DSL7)

Four (4) 25,000-gallon and three (3) 12,000-gallon storage tanks will be used to store ULSD fuel for the emergency generators and firewater pumps at the plant. Emissions from fixed roof storage tanks were calculated using the methodology described in AP-42, Chapter 7.1 – Organic Liquid Storage Tanks (October 2024). Short-term emission rates are calculated using the TCEQ guidance document; Air Permit Reviewer Reference Guide, APDG 6250v3, released 02/20; " Estimating Short Term Emission Rates from Fixed Roof Tanks". Emissions from the fixed roof tanks are uncontrolled. Emissions from fixed roof tanks, a summary of tank parameters, and a sample calculation are provided in **Appendices B-14a, B-14b, and B-14c**.

4.10 Electrical Equipment Insulated with SF_6 (EPN: FUG-SF6)

Sulfur hexafluoride (SF_6) emissions from the circuit breakers associated with the proposed CTG units were calculated using a predicted SF_6 annual leak rate of 1.0-percent by weight. The GWP factors used to calculate CO_2e emissions are based on Table A-1 of the EPA Mandatory GHG Reporting Rules. Fugitive emissions of SF_6 are designated as EPN FUG-SF6. Emission calculations from the circuit breakers are provided in **Appendix B-15**. GHG emission calculations for the turbines, and the GHG emissions summary for all GHG sources are provided in Appendix **B-16**.

4.11 Maintenance Activities (EPN: MSSFUG)

This section provides a broad description of the emission calculation methodologies used to calculate the estimated emissions from ILE maintenance activities. A summary of these emissions is provided in **Appendix B-17** and specific calculations for these activities are found in **Appendix B-17a through B-17h**.

The emission calculation methodologies approved by the TCEQ for the Electric Utility Maintenance Startup and Shutdown (MSS) Workgroup for ILE sources and activities were utilized in this application. The basis of the emission estimates provided (such as the typical number of activities and average emissions per activity) are not intended to be a representation under 30 TAC 116.116(e) but are the best estimate of actual maintenance activities experienced historically. Several of the categories are compilations of many MSS activities performed which may have slight variations in procedure or equipment configuration. These emission calculations are based on worst-case assumptions, actual operation practices and procedures, process knowledge and engineering estimates. Therefore, the calculation basis for each category of MSS emissions should not be considered a 30 TAC 116.116(e) representation, which limits the

number of specific MSS activities in a category or the amount of emissions from any individual MSS activity. Instead, these are provided as a reasonable basis for emission estimates which is expected to become an annual emission limit for the permit Maximum Allowable Emission Rate Table (MAERT).

Emission rates are calculated based on scientific principles (such as the ideal gas law), process knowledge, AP-42 factors, TCEQ guidance, or a combination of these. Any representations in the emission calculations concerning individual emission categories are not intended to be interpreted as individual emission rate limitations but rather as an example of the emission calculation approach for the total category emission estimate.

Section 5
State Regulatory Requirements

This section addresses the assurance of regulatory compliance with applicable state and federal air quality regulations. The requirement contained in 30 TAC Chapter 116.111(a)(2)(A)(i), states:

> *The emissions from the proposed facility will comply with all rules and regulations of the TCEQ and with the intent of the Texas Clean Air Act (TCAA), including protection of health and physical property of the public.*

As outlined in the following evaluation, the emissions from the Project will comply with all rules and regulations of the TCEQ and with the intent of the TCAA, including the protection of the health and welfare, and property of the public.

Chapter 101 – General Rules

Pacifico will operate in compliance with all requirements of the TCEQ General Rules. Some notable rule compliance procedures are summarized below.

§101.2 Multiple Air Contaminant Sources or Properties

Pacifico will demonstrate through air dispersion modeling that the sources to be permitted will not cause or contribute to any violations of ambient air quality standards and will control air emissions in compliance with Commission regulations.

§101.3 Circumvention

There will be no use of any plan, activity, device, or contrivance which will, without resulting in an actual reduction of air contaminants, conceal or appear to minimize the effects of an emission which would otherwise constitute a violation of the TCAA or TCEQ regulations from any source included in this application.

§101.4 Nuisance

Pacifico will demonstrate through air dispersion modeling that there will be no emissions of air contaminants or combined emissions in concentration and duration that would or may tend to injure or adversely affect human health or welfare, animal life, vegetation, or property, or interfere with the normal use and enjoyment of animal life, vegetation, or property.

§101.5 Traffic Hazard

There will be no traffic hazards or interference caused by emissions from the sources included in this application.

§101.8 Sampling

Upon request of the TCEQ and as directed under the special conditions of the permit, Pacifico will conduct sampling at GW Ranch to determine the opacity, rate, composition, or concentration of the emission stream requested.

§101.9 Sampling Ports

Pacifico will comply with the applicable requirements related to sampling ports.

§101.10 Emissions Inventory Requirements

On an annual basis, Pacifico will file the appropriate emissions inventory (EI) of the air pollutants emitted by the site via the STEERS-AEIR Web-EI reporting system, as applicable.

§101.13-19 Administrative Provisions

Pacifico will adhere to and comply with the applicable requirements of 30 TAC §§ 101.13 - 101.19.

§101.20 Compliance with Environmental Protection Agency Standards

Certain equipment within the Project is subject to the New Source Performance Standards (NSPS) rules and regulations as promulgated under Title 40 Code of Federal Regulations Part 60 (40 CFR Part 60). Additionally, certain equipment within the Project is subject to NESHAP for Source Categories promulgated under 40 CFR Part 63. Pacifico will comply with all applicable requirements, as further documented in Section 6, which provides detailed information on the applicable federal regulatory requirements.

The Project will not emit any pollutants subject to NESHAP standards as promulgated under 40 CFR Part 61. Additionally, the Project is not subject to 40 CFR Part 82.

§101.21 The National Primary and Secondary Ambient Air Quality Standards (NAAQS)

As demonstrated in the AQA and modeling report, Pacifico will comply with all applicable requirements associated with the NAAQS.

§101.23 Alternate Emission Reduction ("Bubble") Policy

Operation of the Project will not be regulated by the Alternative Emission Reduction Policy.

§101.24 and §101.27 Inspection Fees and Emissions Fees

Pacifico will submit to the TCEQ all appropriately assessed fees for GW Ranch each year, as applicable.

§101.26 Surcharge on Fuel Oil in Specified Boilers

The provisions of 30 TAC §101.26 do not apply as there are no boilers in the Project.

§101.28 Stringency Determination for Federal Operating Permits

This application is not for a federal operating permit; therefore, this section does not apply.

§101.100-122 Failure to Attain Fee

The Project is not located in the Houston-Galveston-Brazoria (HGB) ozone nonattainment area; therefore, these sections do not apply.

§101.150-155 Voluntary Supplemental Leak Detection Program

The voluntary supplemental leak detection program is applicable to authorized equipment or facilities in VOC service. The Project's natural gas piping component fugitives consist of less than 0.5-percent VOC and there is minimal equipment at the site in VOC service. As such, Pacifico does not anticipate participation in this voluntary program.

§101.201 Emissions Event Reporting and Recordkeeping Requirements

Pacifico will comply with the applicable reporting and recordkeeping requirements, as described in this section.

§101.211 Scheduled Maintenance, Startup, and Shutdown Reporting and Recordkeeping Requirements

Pacifico will comply with the applicable reporting and recordkeeping requirements, as described in this section.

§101.221-224 Operational Requirements, Demonstrations, Actions to Reduce Excess Emissions, and Temporary Exemptions during Drought Conditions

Pacifico will comply with the requirements of 30 TAC §§ 101.221 – 101.224, as necessary.

§101.231-233 Variances

Pacifico is not requesting a variance with this application; therefore, these sections do not apply.

§101.300-311 Emission Credit Banking and Trading

This permit action does not result in any VOC or NO_x emission reductions that will be used for emission credit banking and trading.

§101.330-339 Emissions Banking and Trading Allowances

These sections do not apply because this permit action does not include electric generating facilities permitted under Chapter 116, Subchapter I (relating to Electric Generating Facility Permits).

§101.350-363 Mass Emission Cap and Trade Program

The Project is not located in the HGB ozone nonattainment area; therefore, these sections do not apply.

§101.370-379 Discrete Emission Credit Banking and Trading

Pacifico will not generate or use any discrete emission credits in association with this Project.

§101.390-403 Highly-Reactive Volatile Organic Compound Emissions Cap and Trade Program

The Project is not located in the HGB ozone nonattainment area; therefore, these sections do not apply.

§101.501-508 Clean Air Interstate Rule (CAIR)

This application does not include a stationary, fossil fuel-fired boiler or stationary, fossil fuel-fired combustion turbine meeting the applicability requirements under 40 CFR Part 96, Subpart AA, or Subpart AAA because the generators the proposed units serve will not produce electricity for sale; therefore, these sections do not apply.

§101.600-602 Expedited Permitting

Pursuant to 30 TAC §§ 101.600 – 101.602, Pacifico respectfully requests Expedited Processing of this application. As required, the complete Forms APD-EXP (Expedited Permitting Request) and APD-APS (Air Permitting Surcharge Payment) are included in Appendix A.

Chapter 106 – Permits By Rule

This application includes all emission sources associated with the Project. There are no Permits by Rule (PBRs) being claimed or registered to authorize activities associated with the Project. In the future, if PBR authorizations are required, Pacifico will comply with the requirements of 30 TAC Chapter 106, and will comply with TCEQ requirements for incorporating PBRs into the permit either by consolidation or by reference, as applicable.

Chapter 111 – Control of Air Pollution from Visible Emissions and Particulate Matter

§111.111-113 Visible Emissions

Visible emissions from sources associated with this application are not expected to exceed the opacity limitations specified by these sections. The Chapter 111 opacity limit for the CTGs is 20 percent opacity averaged over a six-minute period, and during normal operations, opacity of emissions from the CTG stacks authorized by this permit shall not exceed 5 percent averaged over a six-minute period, which is less than the Chapter 111 requirement. During periods of MSS operation of the CTGs, the opacity shall not exceed 15 percent averaged over a six-minute period. Pacifico will demonstrate compliance with the opacity limits by conducting visible emission observations at least once during each calendar quarter while the facilities are in operation. Pacifico will comply with all applicable opacity limitations specified in 30 TAC §111.111.

§111.121-129 Incineration

There is no incinerator associated with this application. Therefore, these sections do not apply.

§111.131-139 Abrasive Blasting of Water Storage Tanks Performed by Portable Operations

There is no abrasive blasting of water storage tanks associated with this application; therefore, these sections do not apply.

§111.141-149 Materials Handling, Construction, Roads, Streets, Alleys, and Parking Lots

The Project is located in Pecos County, which is outside the Geographic Areas of Application described at 30 TAC § 111.141; therefore, sections 111.141 through 111.149 do not apply.

§111.151-153 Emissions Limits on Nonagricultural Processes

The 30 TAC §111.151 applicable emissions limits for the primary PM sources in the Project are listed in **Table 5-1** with comparison to the MAER for this Project. As shown, the emissions rates

for this Project are significantly less that what is allowable under 30 TAC §111.151. Pacifico will comply with the requirements of these sections.

Table 5-1 Emissions Limits on Nonagricultural Processes

Emission Source	30 TAC §111.151 Allowable PM Emissions Rates (lb/hr)	Project Maximum Allowable PM Emissions Rates (lb/hr)
Siemens SGT 800 CTGs	165.27	3.25
Large-frame CTGs	496.34	11.10
Supplemental Generators	67.73	0.64
Wet Surface Air Coolers	18.37	0.12
Dewpoint Heaters	8.97	0.08

§111.171-175 Emissions Limits on Agricultural Processes

There are no agricultural processes associated with this Project. Therefore, these sections do not apply.

§111.181-183 Exemptions for Portable or Transient Operations

The Project is not a portable or transient operation. Therefore, these sections do not apply.

§111.201-221 Outdoor Burning

Outdoor burning will not be performed at GW Ranch. Therefore, these sections do not apply.

Chapter 112 – Control of Air Pollution from Sulfur Compounds

§112.1-21 Control of Sulfur Dioxide

When requested by TCEQ, Pacifico will demonstrate compliance with the reporting and recordkeeping requirements for the applicable SO_2 emission limits specified in 30 TAC § 112.2. Pacifico will comply with the provisions of 30 TAC § 112.3 and will operate facilities covered by this application such that SO_2 emissions will not cause an exceedance of the net ground level concentration limit allowed by § 112.3(a), as demonstrated by air dispersion modeling and AQA submitted with this application. Pacifico is not seeking an exemption under § 112.4; therefore, this rule does not apply.

§112.31-34 Control of Hydrogen Sulfide

Pacifico will comply with the provisions of 30 TAC §§ 112.31 – 112.33 and will operate facilities covered by this application such that H_2S emissions will not cause an exceedance of the net ground level concentration limit allowed by Chapter 112, Subchapter B as demonstrated by air

dispersion modeling and AQA submitted with this application. Pacifico will comply with the procedures outlined in 30 TAC § 112.33 for calculation of H_2S emissions for determination of compliance with emission limits.

§112.41-47 Control of Sulfuric Acid

Pacifico will comply with the provisions of 30 TAC §112.41 and will operate facilities covered by this application such that H_2SO_4 emissions will not cause an exceedance of the net ground level concentration limit allowed by 30 TAC § 112.41(a), as demonstrated by air dispersion modeling and AQA submitted with this application. Pacifico will comply with the procedures outlined in 30 TAC § 112.33 for calculation of H_2SO_4 emissions for determination of compliance with emission limits.

§112.51-59 Control of Total Reduced Sulfur

The Project does not include any kraft pulp mills; therefore, these sections related to total reduced sulfur (TRS) do not apply.

§112.100-308 Sulfur Compound Nonattainment Areas

Chapter 112, Subchapters E, F, and G apply to the Howard County, Hutchinson County, and Navarro County nonattainment areas, respectively. The Project is not located in these nonattainment areas; therefore, these subchapters do not apply.

Chapter 113 – Control of Air Pollution from Toxic Materials

Chapter 113 incorporates by reference the federal standards of performance for HAPs and for designated facilities and pollutants adopted by EPA. Section 6 of this application demonstrates how Pacifico will comply with the applicable standards. The Project is not subject to 40 CFR Part 65, and does not operate a municipal solid waste landfill or hospital/medical/infectious waste incinerator.

Chapter 114 – Control of Air Pollution from Motor Vehicles

This application does not seek authorization for mobile source emissions.

Chapter 115 – Control of Air Pollution from Volatile Organic Compounds

§115.110-119 Storage of Volatile Organic Compounds

The Project is not located in any of the applicable nonattainment areas or covered attainment counties subject to this rule; therefore, these sections do not apply.

§115.120-129 Vent Gas Control

The Project does not operate Synthetic Organic Chemical Manufacturing Industry (SOCMI) facilities covered by the subchapters related to vent gas control. As such, this division does not apply.

§115.131-139 Water Separation

There is no water separator associated with this permit application; therefore, these regulations do not apply.

§115.140-149 Industrial Wastewater

There is no industrial wastewater processing facility associated with this permit application; therefore, these sections do not apply.

§115.152-159 Municipal Solid Waste Landfills

The Project does not include any municipal solid waste landfill facilities; therefore, these sections do not apply.

§115.160-169 Batch Processes

The Project does not include any batch processes; therefore, these sections do not apply.

§115.170-183 Oil and Natural Gas Service in Ozone Nonattainment Areas

The Project is not located in any of the applicable ozone nonattainment areas subject to this rule; therefore, these sections do not apply.

§115.211 Loading and Unloading of VOCs

The Project does not include a gasoline terminal; therefore, 30 TAC § 115.211 does not apply.

§115.212-219 Loading and Unloading of Volatile Organic Compounds

The Project is not located in any of the applicable geographic areas subject to this rule; therefore, these sections do not apply.

§115.221-229 Filling of Gasoline Storage Vessels (Stage I) for Motor Vehicle Fuel Dispensing Facilities

There is no motor vehicle fuel dispensing associated with the Project; therefore, these sections do not apply.

§115.234-239 Control of Volatile Organic Compound Leaks from Transport Vessels

The Project is not located in any of the applicable nonattainment areas or covered attainment counties subject to this rule; therefore, these sections do not apply.

§115.240-248 Control of Vehicle Refueling Emissions (Stage II) at Motor Vehicle Fuel Dispensing Facilities

There is no motor vehicle fueling dispensing facility associated with this Project; therefore, these sections do not apply.

§115.252-259 Control of Reid Vapor Pressure of Gasoline

The Project is not located in El Paso County; therefore, these sections do not apply.

§115.311-319 Process Unit Turnaround and Vacuum-Producing Systems in Petroleum Refineries

The Project is not a petroleum refining process unit; therefore, these sections do not apply.

§115.322-329 Fugitive Emission Control in Petroleum Refineries in Gregg, Nueces, and Victoria Counties

The Project is not a petroleum refinery; therefore, these sections do not apply.

§115.352-359 Fugitive Emission Control in Petroleum Refining, Natural Gas/Gasoline Processing, and Petrochemical Processes

The Project is not a petroleum refinery, Natural Gas/Gasoline Processing unit, or Petrochemical Process unit; therefore, these sections do not apply.

§115.412-419 Degreasing and Cleanup Processes

The Project is not located in any of the applicable geographic areas subject to this rule; therefore, these sections do not apply.

§115.420-429 Surface Coating Processes

The Project is not located in any of the applicable geographic areas subject to this rule; therefore, these sections do not apply.

§115.430-449 Flexographic and Rotogravure Processes and Offset Lithographic Printing

The Project is not located in any of the applicable geographic areas subject to this rule; therefore, these sections do not apply.

§115.450-459 Control Requirements for Surface Coating Processes

The Project is not located in any of the applicable geographic areas subject to this rule; therefore, these sections do not apply.

§115.460-469 Industrial Cleaning Solvents

The Project is not located in any of the applicable geographic areas subject to this rule; therefore, these sections do not apply.

§115.470-479 Miscellaneous Industrial Adhesives

The Project is not located in any of the applicable geographic areas subject to this rule; therefore, these sections do not apply.

§115.510-539 Cutback Asphalt and Pharmaceutical Manufacturing Facilities

The Project does not include these types of facilities; therefore, these sections do not apply.

§115.540-549 Degassing or Cleaning of Stationary, Marine, and Transport Vessels

The Project does not include these types of facilities; therefore, these sections do not apply.

§115.552-619 Petroleum Dry Cleaning Systems and Consumer Products

The Project does not include these types of facilities; therefore, these sections do not apply.

§115.720-789 Highly-Reactive Volatile Organic Compounds

The Project is not located in the HGB ozone nonattainment area; therefore, these sections do not apply.

§115.901-916 Alternate Means of Control (AMOC)

Pacifico is not requesting an AMOC as part of this permit application; therefore, these sections do not apply.

§115.920-923 Early Reductions

Pacifico is not requesting an extension to comply with any requirement in Chapter 115; therefore, these sections do not apply.

§115.930-940 Compliance and Control Plan Requirements

A schedule for achieving compliance with the applicable sections of this regulation will be provided upon request by the Executive Director.

§115.950 Emissions Trading

Emission reduction credits and discrete emission reduction credits will not be used to meet the emission control requirements of this chapter.

Chapter 116 – Control of Air Pollution by Permits for New Construction/Modification

§116.110 Applicability

This application is being submitted in compliance with the requirement to obtain appropriate authorization before commencing construction. The construction permit application is being submitted under seal of Texas licensed professional engineer. Pacifico is the owner and operator of the Project and is responsible for complying with 30 TAC § 116.110.

§116.111(a)(1) and (a)(2)(A) Protection of Public Health and Welfare and Proximity to Schools

This permit application will satisfy all requirements of 30 TAC § 116.111. A completed *PI-1 General Application form* signed by an authorized representative of Pacifico is included in this application. This application includes information demonstrating that the emission rates from the new facilities associated with this Project comply with the rules and regulations of the TCEQ and the intent of the TCAA, including protection of health and property of the public. As indicated on Figure 1-1, there are no schools located within 3,000 feet from the Project.

§116.111(a)(2)(B) Measurement of Emissions

Pacifico will measure the emissions of significant air contaminants in accordance with this permit application. A monitoring plan is included in the TCEQ Form PI-1 General Application, which details the requirements to demonstrate compliance through monitoring for each pollutant to be emitted from each source to be authorized. For the CTGs in this application, Pacifico will install, calibrate, maintain, and operate a continuous emissions monitoring system (CEMS) to measure and record the concentrations of NOx, CO, and diluents (O_2 or carbon dioxide) in the CTG stacks. Additionally, continuous monitoring systems will be used to monitor and record the average hourly natural gas consumption of the CTGs, and for measurement of the concentrations of NH_3 slip when the CTG SCR units are in operation.

§116.111(a)(2)(C) Best Available Control Technology (BACT)

Pacifico will utilize BACT with consideration given to the technical practicability and economic reasonableness of reducing emissions. A top-down BACT analysis was performed for the facilities, which is presented in Appendix C of this application.

§116.111(a)(2)(D) New Source Performance Standards (NSPS)

Pacifico will comply with the applicable Standards of Performance for New Stationary Sources (NSPS), 40 CFR Part 60 Subparts, as discussed above and in Section 6.

§116.111(a)(2)(E) National Emission Standards for Hazardous Air Pollutants (NESHAP)

The emission sources at the site are not subject to any NESHAP as specified in 40 CFR Part 61; therefore, this requirement is not applicable.

§116.111(a)(2)(F) NESHAP for Source Categories (MACT)

Pacifico will comply with the requirements of 40 CFR Part 63 NESHAP for Source Categories (MACT Standards), as discussed in Section 6.

§116.111(2)(G) Performance Demonstration

The Project will achieve the performance specified in this application, which has been determined by equipment vendor guarantees, regulatory prescribed emission factors, and other indicia of reliability in the information used to determine expected emissions performance. Pacifico will measure emissions of regulated air contaminants from the CTGs through emissions performance testing, continuous emissions monitoring, and parameter monitoring. The CTG stacks will be equipped with a CEMS for measuring emissions of NOx and CO. Other pollutants will be monitored by measuring the fuel input to the combustion turbine and applying the emission factors used in this application.

Pacifico will operate all process and emissions control equipment according to instructions and recommendations provided by the equipment vendors and in compliance with applicable regulatory requirements and the terms of any TCEQ permit. If requested by the Executive Director, Pacifico will provide additional performance data and testing as appropriate in order to demonstrate further that the Project will achieve the performance specified in the application.

§116.111(a)(2)(H) Nonattainment Review

The Project is located in Pecos County, Texas, which is classified as an attainment or unclassifiable area for all criteria pollutants; therefore, nonattainment review is not required.

§116.111(a)(2)(I) Prevention of Significant Deterioration (PSD) Review

PSD review applies for NO_X, CO, VOC, SO_2, PM_{10}, $PM_{2.5}$, and CO_2e emissions from the proposed Project, and Pacifico will comply with all applicable requirements in 30 TAC Chapter 116, Subchapter B, Division 6 concerning PSD review.

§116.111(a)(2)(J) Air Dispersion Modeling

An Air Quality Analysis (AQA) modeling protocol is included in support of this permitting action for review and approval prior to Pacifico's submittal of the final AQA. The protocol addresses the proposed modeling methodologies that will be used to demonstrate that the air emissions associated with this Project will not cause or contribute to a violation of any applicable NAAQS or PSD Increments, nor cause any adverse human health or welfare effects, and to provide an assessment of the Project's effect on the overall environment. Additionally, a State Property Line impacts analysis will be performed for sulfur compounds, as applicable. Appendix E of this application contains the PSD Air Dispersion Modeling Protocol and Electronic Modeling Evaluation Workbook (EMEW) for Non-SCREEN3 (version 3.0) submitted in support of the application.

§116.111(a)(2)(K) Hazardous Air Pollutants

Affected sources subject to this subchapter are those sources for which no MACT standard has been promulgated under 40 CFR Part 63. The Project does not have any affected sources that meet these criteria and therefore this section is not applicable.

§116.111(a)(2)(L) Mass Cap and Trade Allowances

The Project is not located in the HGB ozone nonattainment area; therefore, these sections do not apply.

§116.112 Distance Limitations

The Project is not a lead smelter or concrete crushing facility; therefore, these sections do not apply.

§116.114 Application Review Schedule

Pacifico will comply with all conditions of the TCEQ permit review schedule.

§116.115 General and Special Conditions

Pacifico will comply with all conditions and provisions of the TCEQ air permit.

§116.116 Changes to Facilities

The Project will be operated in accordance with the representations made in this application. Any changes in the construction or operation of the facilities from the representations made in this permit application that result in changes in the method of controlling emissions, the character of the emissions, or an increase in emissions will be preceded by proper authorization.

§116.117 Documentation and Notification of Changes to Qualified Facilities

This section does not apply to this permit application.

§116.119 De Minimis Facilities or Sources

No de-minimis facilities or sources are represented in this permit application.

§116.120 Voiding of Permits

Once authorized, Pacifico will begin and continue the construction of the Project such that its permits will not become void under this section.

§116.127 Actual to Projected Actual and Emission Exclusion Test for Emissions

This section does not apply to this permit application.

§116.128 Amendment Application, Public Notice and Contested Case Hearing Procedures for Certain Electric Generating Facilities

This section does not apply to this permit application.

§116.140-143 Permit Fees

As detailed in Section 2.6, Pacifico will remit the appropriate permit application fee in accordance with this section. Likewise, as detailed in Section 2.7, Pacifico will remit the air permitting surcharge payment for expedited processing of this permit application.

§116.150 New Major Source or Major Modification in Ozone Nonattainment Area

The Project is located in Pecos County, Texas, which is classified as an attainment or unclassifiable area for all criteria pollutants; therefore, the requirements of this section are not applicable.

§116.151 New Major Source or Major Modification in Nonattainment Area other than Ozone

The Project is located in Pecos County, Texas, which is classified as an attainment or unclassifiable area for all criteria pollutants; therefore, this section does not apply to this permit application.

§116.160-163 Prevention of Significant Deterioration Review

PSD review applies for NO_X, CO, VOC, SO_2, PM_{10}, $PM_{2.5}$, and CO_2e emissions from the proposed Project, and Pacifico will comply with all applicable requirements in 30 TAC Chapter 116, Subchapter B, Division 6 concerning PSD review.

§116.170-176 Emissions Reductions: Offsets

Emission offsets are not required for this Project.

§116.178 Portable Facilities

There are no portable facilities associated with this permit application. Therefore, the requirements of this section do not apply.

§116.180-198 Plant-wide Applicability Limits

Pacifico is not requesting plant-wide applicability limits with this application; therefore, these sections do not apply.

§116.310-315 New Source Review Permit Renewal

These sections do not apply to this permit application since it is not a renewal application.

§116.400-406 Hazardous Air Pollutants: Regulations Governing Constructed or Reconstructed Major Sources

Affected sources subject to this subchapter are those sources for which no MACT standard has been promulgated under 40 CFR Part 63. The Project does not have any affected sources that meet these criteria and therefore this section is not applicable.

§116.601-620 Standard Permits

This application is not a request for authorization under a Standard Permit; therefore, these sections do not apply to this permit application.

§116.710-765 Flexible Permits

The Project will not operate under a flexible permit and this application is not a request for authorization under a Flexible Permit; therefore, these sections do not apply to this permit application.

§116.770-870 Permits for Grandfathered Facilities

These sections do not apply to this permit application.

§116.910-931 Electric Generating Facility Permits

The Project is not a grandfathered electric generating facility (EGF); therefore, these sections do not apply.

§116.1010-1070 Multiple Plant Permits

These sections do not apply to this permit application.

§116.1200 Emergency Orders

Pacifico will apply for an emergency order in compliance with these rules if a catastrophic event occurs that necessitates such action.

§116.1400-1428 Permits for Specific Designated Facilities

These sections do not apply to this application.

§116.1500-1540 Best Available Retrofit Technology (BART)

These sections do not apply to this application.

Chapter 117 – Control of Air Pollution from Nitrogen Compounds

The Project is not located in an ozone nonattainment area and is not subject to Chapter 117, Subchapter B (Combustion Control at Major Industrial, Commercial, and Institutional Sources in Ozone Nonattainment Areas), Subchapter C (Combustion Control at Major Utility Electric Generation Sources in Ozone Nonattainment Areas), or Subchapter D (Combustion Control at Minor Sources in Ozone Nonattainment Areas). The Project is not located in the covered geographic regions subject to Chapter 117, Subchapter E (Multi-Region Combustion Control) and therefore the sections in Subchapter E do not apply.

The Project does not operate any acid manufacturing facilities, and therefore the sections in Subchapter F do not apply to this permit application. Pacifico does not operate any units

subject to Chapter 117 and is not located in the covered geographic regions subject to Chapter 117. As such, The Project is not subject to the general monitoring and testing requirements (Subchapter G) and administrative provisions (Subchapter H).

Chapter 118 – Control of Air Pollution Episodes

The Project sources will be operated in compliance with any orders of the Commission relating to generalized and localized air pollution episodes. Pacifico will implement all reasonably available emission reduction methods in the event of a Level I air pollution episode and will comply with the TCEQ directions to reduce or curtail emission rates in the event of a Level II episode as specified in 30 TAC §§118.2 and 118.3, respectively, upon request of the TCEQ.

Chapter 122 – Federal Operating Permits

Pacifico will apply for the appropriate Federal Operating Permit (FOP) authorizations for the Project.

Section 6
Federal Regulatory Requirements

This section addresses applicable rules originally developed by EPA for affected source categories, but which TCEQ has adopted by reference and which it enforces pursuant to delegations from EPA.

6.1 New Source Performance Standards (NSPS)

The following NSPS rules as promulgated under Title 40 Code of Federal Regulations (40 CFR) Part 60 apply to this Project:

Subpart A – General Provisions

Pacifico will comply with the general reporting and testing requirements of the General Provisions, where applicable.

Subpart IIII—Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

NSPS Subpart IIII applies to the emergency generator engines and fire suppression system pumps to be installed as part of this Project. Pacifico will comply with Subpart IIII through the use of engines certified to meet the Subpart IIII emission requirements, proper operation, and maintenance of the equipment, and firing of ULSD fuel meeting federal diesel fuel specifications.

Subpart JJJJ—Standards of Performance for Stationary Spark Ignition Internal Combustion Engines

NSPS Subpart JJJJ applies to the supplemental generator engines to be installed as part of this Project. Pacifico will comply with Subpart JJJJ through the use of engines certified to meet the Subpart JJJJ emission requirements, proper operation, and maintenance of the equipment, and firing of pipeline quality natural gas.

Subpart KKKK—Standards of Performance for Stationary Combustion Turbines

NSPS Subpart KKKK applies to the combustion turbines to be installed as part of this Project. Pacifico will meet the required Subpart KKKK NOx limit of 15 ppm at 15% O_2. The NOx limit is on a 4-hour rolling average for simple cycle units. The fuel burned will not contain potential sulfur in excess of 0.060 lb/MMBtu.

Subpart TTTTa— Standards of Performance for Greenhouse Gas (GHG) Emissions for New Construction and Reconstruction Stationary Combustion Turbine Electric Generating Units

Pacifico will not be subject to NSPS Subpart TTTTa because the plant will not supply or sell electricity to the power grid. Specifically, the GHG standards included in this subpart apply to turbine(s) that "serves a generator or generators capable of selling greater than 25 MW of electricity to a utility power distribution system [§60.5509a(a)(2)]." The Project's combustion turbines will not sell electricity to a utility power distribution system and the Project's power generation is solely for on-site use.

See **Table 6-1** for NSPS applicability determination and details of applicable subparts. Pacifico will comply with all applicable requirements in 40 CFR Part 60.

6.2 National Emission Standards for Hazardous Air Pollutants (NESHAP)

There are no NESHAPS in 40 CFR Part 61 promulgated by the US EPA pursuant to section 112 of the FCAA that apply to the Project.

Table 6-1 40 CFR 60 New Source Performance Standards (NSPS)

40 CFR 60 Subpart	Unit	Applies	Basis for Applicability
Subpart A—General Provisions	All Equipment Subject to a Subpart of 40 CFR 60	Yes	All sources subject to a 40 CFR 60 Subpart are required to meet the general provisions in Subpart A, as applicable.
Subpart KKKK—Standards of Performance for Stationary Combustion Turbines	EPNs CT-1A through CT-21A, and CT-1B through CT-14B	Yes	The combustion turbines have a peak heat input of greater than 10 MMBtu/hr.
Subpart TTTT—Standards of Performance for Greenhouse Gas Emissions for Electric Generating Units	EPNs CT-1A through CT-21A, and CT-1B through CT-14B	No	The stationary combustion turbines will not be connected to the utility power grid and will not be capable of selling electricity to a utility power distribution system.
Subpart TTTTa—Standards of Performance for Greenhouse Gas Emissions for Modified Coal-Fired Steam Electric Generating Units and New Construction and Reconstruction Stationary Combustion Turbine Electric Generating Units	EPNs CT-1A through CT-21A and CT-1B through CT-14B	No	The stationary combustion turbines will not be connected to the utility power grid and will not be capable of selling electricity to a utility power distribution system.
Subpart IIII—Standards of Performance for Stationary Compression Ignition Internal Combustion Engines	EPNs FPUMP-1 through FPUMP-5 and EGEN1 through EGEN15	Yes	Engines manufactured after the applicable model year dates.
Subpart JJJJ—Standards of Performance for Stationary Spark Ignition Internal Combustion Engines	EPNs ENGINE-1 and ENGINE-2	Yes	The supplemental engines have a maximum engine power greater than 500 HP and commenced construction after July 1, 2007.
Subpart Kc—Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984	EPNs TNK-DSL1 through TNK-DSL7	No	The tanks store ULSD fuel, which has a maximum vapor pressure less than 0.25 psia.

6.3 Maximum Achievable Control Technologies for NESHAP Source Categories

The following MACT standards promulgated under 40 CFR Part 63 apply to this Project:

Subpart A – General Provisions

Pacifico will comply with the general reporting and testing requirements of the General Provisions, where applicable.

Subpart YYYY—National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines

MACT Subpart YYYY, National Emission Standards for Stationary Gas Turbines, applies to the combustion turbines. The Project's gas turbines are lean premix gas-fired units and will comply with the applicable standards, namely the concentration of formaldehyde will be limited to 91 ppbvd at 15% O_2. Additionally, the oxidation catalyst will maintain a four-hour rolling inlet temperature within the range suggested by the manufacturer.

Subpart ZZZZ—National Emission Standard for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

The emergency generators and supplemental generators are subject to the requirements of 40 CFR 63 Subpart ZZZZ for Stationary Internal Combustion Engines (ICE). The emergency engines are new compression ignition engines greater than 500 horsepower (HP) and thus will meet the formaldehyde limit of 580 ppbvd or less at 15 percent O_2 specified in Table 2A. The supplemental generators are 4 stroke lean burn (4SLB) engines greater than 250 HP and thus will meet the formaldehyde limit of 14 ppmvd or less at 15 percent O2 specified in Table 2A. Both types of engines will meet the operating temperature and pressure drop requirements specified in 40 CFR 63 Subpart ZZZZ, Table 2b. The Project fire pump engines have a HP rating less than 500 HP and therefore do not have any requirements under Subpart ZZZZ.

Subpart DDDDD—National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters

MACT Subpart DDDDD, NESHAP for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters, will apply to the dewpoint heaters. The process heaters burn natural gas and are categorized under this subpart as units designed to burn gas. As such, the dewpoint heaters will meet the applicable work practice standards specified in Table 3, namely biennial tune-ups for heaters with a heat input capacity less than 10 MMBtu/hr and annual tune-ups for units with a heat input capacity greater than 10 MMBtu/hr. Additionally, the process heaters will comply with all applicable monitoring, testing, recordkeeping, and reporting requirements in this subpart.

See **Table 6-2** for MACT standards applicability determination and details of the applicable subparts. Pacifico will comply with all applicable requirements in 40 CFR Part 63.

Table 6-2 40 CFR 63 NESHAP for Source Categories (MACT Standards)

40 CFR 63 Subpart	Unit	Applies	Basis for Applicability
Subpart A—General Provisions	All Equipment Subject to a Subpart of 40 CFR 63	Yes	All sources subject to a 40 CFR 63 Subpart are required to meet the general provisions in Subpart A, as applicable.
Subpart YYYY—National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines	EPNs CT-1A through CT-21A, and CT-1B through CT-14B	Yes	The combustion turbines are located at a major source of HAP emissions.
Subpart ZZZZ—National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines	EPNs EGEN1 through EGEN15, ENGINE-1, and ENGINE-2.	Yes	The listed units are stationary reciprocating internal combustion engines (RICE) located at a major source of HAPs.
Subpart H—National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks	FUG	No	This subpart is only applicable if referenced by another subpart.
Subpart TT—National Emission Standards for Equipment Leaks – Control Level 1	FUG	No	This subpart is only applicable if referenced by another subpart.
Subpart UU—National Emission Standards for Equipment Leaks – Control Level 2 Standards	FUG	No	This subpart is only applicable if referenced by another subpart.
Subpart WW—National Emission Standards for Storage Vessels (Tanks) – Control Level 2	EPNS TNK-DSL1 through TNK-DSL7	No	This subpart is only applicable if referenced by another subpart.
Subpart YY—National Emission Standards for Hazardous Air Pollutants for Source Categories: Generic Achievable Control Technology Standards	All	No	The plant is not one of the list source categories and therefore not subject to this subpart.
Subpart DDDDD—Natural Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters	DPHEAT1 through DPHEAT19	Yes	The dewpoint heaters are process heaters and will meet the applicable requirements specified in this subpart.

6.4 Disaster Review

This section addresses the assurance of regulatory compliance with TCEQ regulatory requirements and EPA regulations on Chemical Accident Prevention Provisions promulgated in 40 CFR Part 68. Pacifico will not store or handle any chemicals of concern in sufficient quantities or concentrations to trigger the requirement for a disaster review. The CTGs will use 19-percent aqueous ammonia in the SCR system, which is not a chemical of concern with respect to disaster review. The quantity and concentration of the aqueous ammonia to be stored will not be subject to USEPA's Risk Management Program codified at 40 CFR 68.

Appendix A
TCEQ Administrative Tables and Forms

- Form PI-1 General Application; Excel workbook file (version 6.1)
- TCEQ Core Data Form
- Form APD-EXP Expedited Permitting Request
- Form APD-APS Air Permitting Surcharge Payment
- TCEQ Plain Language Summary for New Source Review (NSR) Initial Permits; English and Spanish
- TCEQ Public Involvement Plan (PIP) Form
- TCEQ Table 2 *Material Balance*
- TCEQ Table 6 *Boilers and Heaters*
- TCEQ Table 7(a) *Vertical Fixed Roof Storage Tank Summary*
- TCEQ Table 29 *Reciprocating Engines*
- TCEQ Table 31 *Combustion Turbines*
- TCEQ Table 1F *Air Quality Application Supplement*
- TCEQ Table 2F *Project Emissions Increase Supplement*
- TCEQ Fugitive Emission Calculations; Excel workbook file (version 2.0)

I. Applicant Information

I acknowledge that I am submitting an authorized TCEQ application workbook and any necessary attachments. Except for inputting the requested data and adjusting row height and column width, I have not changed the TCEQ application workbook in any way, including but not limited to changing formulas, formatting, content, or protections.	I agree

A. Company Information

Company or Legal Name:	Pacifico GW LLC

Permits are issued to either the facility owner or operator, commonly referred to as the applicant or permit holder. List the legal name of the company, corporation, partnership, or person who is applying for the permit. We will verify the legal name with the Texas Secretary of State at (512) 463-5555 or at the link below.

https://www.sos.state.tx.us

Texas Secretary of State Charter/Registration Number (if given):	

B. Company Official Contact Information: must not be a consultant

Prefix (Mr., Ms., Dr., etc.):	Mr.
First Name:	Constantyn
Last Name:	Gieskes
Title:	Vice President
Mailing Address:	30900 Rancho Viejo Rd. Ste. 230
Address Line 2:	
City:	San Juan Capistrano
State:	CA
ZIP Code:	92675
Telephone Number:	949-481-8200
Fax Number:	
Email Address:	Constantyn@pacificoenergy.com

C. Technical Contact Information: This person must have the authority to make binding agreements and representations on behalf of the applicant and may be a consultant. **Additional technical contact(s) can be provided in a cover letter.**

Prefix (Mr., Ms., Dr., etc.):	Ms.
First Name:	Elizabeth
Last Name:	Stanko
Title:	Director, Energy Transition Projects
Company or Legal Name:	TRC Environmental Corporation
Mailing Address:	11767 Katy Fwy, Suite 850
Address Line 2:	
City:	Houston
State:	TX
ZIP Code:	77079
Telephone Number:	713-244-1039
Fax Number:	
Email Address:	EStanko@trccompanies.com

D. Assigned Numbers

The CN and RN below are assigned when a Core Data Form is initially submitted to the Central Registry. The RN is also assigned if the agency has conducted an investigation or if the agency has issued an enforcement action. If these numbers have not yet been assigned, leave these questions blank and include a Core Data Form with your application submittal. See Section VI.B. below for additional information.

Enter the CN. The CN is a unique number given to each business, governmental body, association, individual, or other entity that owns, operates, is responsible for, or is affiliated with a regulated entity.	TBD
Enter the RN. The RN is a unique agency assigned number given to each person, organization, place, or thing that is of environmental interest to us and where regulated activities will occur. The RN replaces existing air account numbers. The RN for portable units is assigned to the unit itself, and that same RN should be used when applying for authorization at a different location.	TBD

II. Delinquent Fees and Penalties

Does the applicant have unpaid delinquent fees and/or penalties owed to the TCEQ? This form will not be processed until all delinquent fees and/or penalties owed to the TCEQ or the Office of the Attorney General on behalf of the TCEQ are paid in accordance with the Delinquent Fee and Penalty Protocol. For more information regarding Delinquent Fees and Penalties, go to the TCEQ Web site at the link below: https://www.tceq.texas.gov/agency/financial/fees/delin	No

III. Permit Information

A. Permit and Action Type (multiple may be selected, leave no blanks)

Additional information regarding the different NSR authorizations can be found at the link below:
https://www.tceq.texas.gov/permitting/air/guidance/authorize.html

Select from the dropdown the type of action being requested for each permit type. **If that permit type does not apply, you MUST select "Not applicable".**

Provide all assigned permit numbers relevant for the project. Leave blank if the permit number has not yet been assigned.

Permit Type	Action Type Requested (do not leave blank)	Permit Number (if assigned)
Minor NSR (can be a Title V major source): *Not applicable, Initial, Amendment, Renewal, Renewal Certification, Renewal/Amendment, Relocation/Alteration, Change of Location, Alteration, Extension to Start of Construction*	Initial	TBD
Special Permit: *Not applicable, Amendment, Renewal, Renewal Certification, Renewal/Amendment, Alteration, Extension to Start of Construction*	Not applicable	
De Minimis: *Not applicable, Initial*	Not applicable	
Flexible: *Not applicable, Initial, Amendment, Renewal, Renewal Certification, Renewal/Amendment, Alteration, Extension to Start of Construction*	Not applicable	
PSD: *Not applicable, Initial, Major Modification*	Initial	TBD
Nonattainment: *Not applicable, Initial, Major Modification*	Not applicable	

HAP Major Source [FCAA § 112(g)]: *Not applicable, Initial, Major Modification*	Not applicable	
PAL: *Not applicable, Initial, Amendment, Renewal, Renewal/Amendment, Alteration*	Not applicable	
GHG PSD: *Not applicable, Initial, Major Modification, Voluntary Update*	Initial	TBD
GHG projects: List the non-GHG applications (pending or being submitted) that are associated with the project. Note: All preconstruction authorizations (including authorization for emissions of greenhouse gases, if applicable) must be obtained prior to start of construction.	None	

B. MSS Activities

How are/will MSS activities for sources associated with this project be authorized?	This permit

C. Consolidating NSR Permits

Will this permit be consolidated into another NSR permit with this action?	No
Will NSR permits be consolidated into this permit with this action?	No

D. Incorporation of Standard Permits, Standard Exemptions, and/or Permits By Rule (PBR)

To ensure protectiveness, previously issued authorizations (standard permits, standard exemptions, or PBRs) including those for MSS, are incorporated into a permit either by consolidation or by reference.

-Authorizations entirely incorporated by consolidation will be voided when the project is complete, and the sources and allowable emissions will be added to the NSR permit's MAERT.

-Authorizations incorporated by reference will be referenced with the final action for this project but will not be voided. Sources will continue to be authorized in the current manner.

At the time of renewal and/or amendment, consolidation (in some cases) may be voluntary and referencing is mandatory. More guidance regarding incorporation can be found in:

- 30 TAC § 116.116(d)(2),
- 30 TAC § 116.615(3),
- and the memo titled "Revised Permits by Rule and Standard Permit Consolidation Into Permits - September 2006" which can be found at the link below.

https://www.tceq.texas.gov/permitting/air/memos/nsr_memos.html

Are there any standard permits, standard exemptions, or PBRs to be incorporated by reference?	No
Are there any PBR, standard exemptions, or standard permits associated to be incorporated by consolidation? **Note:** Emission calculations, a BACT analysis, and an impacts analysis must be attached to this application at the time of submittal for any authorization to be incorporated by consolidation.	No

E. Associated Federal Operating Permits

Is this facility located at a site required to obtain a **site operating permit (SOP)** or **general operating permit (GOP)?**	Yes
Is a **SOP** or **GOP** review pending for this source, area, or site?	No
If required to obtain a **SOP** or **GOP**, list all associated permit number(s). If no associated permit number has been assigned yet, enter "TBD":	TBD

IV. Facility Location and General Information

A. Location

County: Enter the county where the facility is physically located.	Pecos
TCEQ Region:	Region 7
County attainment status:	attainment or unclassified for all pollutants
Street Address:	
City: If the address is not located in a city, then enter the city or town closest to the facility, even if it is not in the same county as the facility.	
ZIP Code: Include the ZIP Code of the physical facility site, not the ZIP Code of the applicant's mailing address.	
Site Location Description: If there is no street address, provide written driving directions to the site. Identify the location by distance and direction from well-known landmarks such as major highway intersections.	Site is located north of Fort Stockton. Continue north on Highway 18 approximately 17 miles north of town, on the west side of Highway 18.
Is this a project for a lead smelter, concrete crushing facility, and/or a hazardous waste management facility?	No

B. General Information	
Site Name:	GW Ranch Energy Center
Area Name: Must indicate the general type of operation, process, equipment or facility. Include numerical designations, if appropriate. Examples are Sulfuric Acid Plant and No. 5 Steam Boiler. Vague names such as Chemical Plant are not acceptable.	GW Ranch Power Generation Facility
Are there any schools located within 3,000 feet of the site boundary?	No
C. Portable Facility	
Permanent or portable facility?	Permanent
D. Industry Type	
Principal Company Product/Business:	Electric Generation
A list of SIC codes can be found at the link below: https://www.naics.com/sic-codes-industry-drilldown/	
Principal SIC code:	4911
NAICS codes and conversions between NAICS and SIC Codes are available at the link below: https://www.census.gov/naics/	
Principal NAICS code:	221112
E. State Senator and Representative for this site	
This information can be found at the link below (note, the website is not compatible to Internet Explorer): https://wrm.capitol.texas.gov/	
State Senator:	Cesar Blanco
District:	29
State Representative:	Wes Virdell
District:	53

V. Project Information	
A. Description	
Provide a **brief** description of the project that is requested (describe the what, not the how and why). Limited to 500 characters.	Construction of new simple cycle electric generating plant at a greenfield site.
B. Project Timing	
Authorization must be obtained for many projects before beginning construction. Construction is broadly interpreted as anything other than site clearance or site preparation. Enter the date as "Month Date, Year" (e.g. July 4, 1776).	
Projected Start of Construction:	August 1, 2026
Projected Start of Operation:	August 1, 2027
C. Enforcement Projects	
Is this application in response to, or related to, an agency investigation, notice of violation, or enforcement action?	No

D. Operating Schedule	
Will sources in this project be authorized to operate 8760 hours per year?	Yes

VI. Application Materials	
All representations regarding construction plans and operation procedures contained in the permit application shall be conditions upon which the permit is issued. (30 TAC § 116.116)	
A. Confidential Application Materials	
Is confidential information submitted with this application?	No
B. Is the Core Data Form (Form 10400) attached? Link to form and instructions below.	Yes
https://www.tceq.texas.gov/permitting/central_registry/guidance.html	
C. Is a current area map attached?	Yes
Is the area map a current map with a true north arrow, an accurate graduated scale, the entire plant property, the location of the property relative to prominent geographical features including, but not limited to, highways, roads, streams, and significant landmarks such as buildings, residences, schools, parks, hospitals, day care centers, and churches?	Yes
Does the map show a 3,000-foot radius from the property boundary?	Yes
D. Is a plot plan attached?	Yes
Does your plot plan clearly show a north arrow, an accurate graduated scale, all property lines, all emission points, buildings, tanks, process vessels, other process equipment, and two bench mark locations?	Yes
Does your plot plan identify all emission points on the affected property, including all emission points authorized by other air authorizations, construction permits, PBRs, special permits, and standard permits?	Yes
Did you include a table of emission points indicating the authorization type and authorization identifier, such as a permit number, registration number, or rule citation under which each emission point is currently authorized?	Yes
E. Is a process flow diagram attached?	Yes
Is the process flow diagram sufficiently descriptive so the permit reviewer can determine the raw materials to be used in the process; all major processing steps and major equipment items; individual emission points associated with each process step; the location and identification of all emission abatement devices; and the location and identification of all waste streams (including wastewater streams that may have associated air emissions)?	Yes
F. Is a process description attached?	Yes

Does the process description emphasize where the emissions are generated, why the emissions must be generated, what air pollution controls are used (including process design features that minimize emissions), and where the emissions enter the atmosphere?	Yes
Does the process description also explain how the facility or facilities will be operating when the maximum possible emissions are produced?	Yes
G. Is a detailed list of requested actions included in the application? This list can be included in the project description.	Yes
H. Are detailed calculations attached? Calculations must be provided for each source with new or changing emission rates. For example, a new source, changing emission factors, decreasing emissions, consolidated sources, etc. Calculations do not need to be submitted for sources without any proposed emission rate changes. Note: the preferred format is an electronic workbook (such as Excel) with all formulas viewable for review.	Yes
Are emission rates and associated calculations for planned MSS facilities and related activities attached?	Yes
I. Is a material balance (Table 2, Form 10155) attached?	Yes

Table 2 (Form 10155), entitled Material Balance: A material balance representation may be required for all applications to confirm technical emissions information. Typically this is required for refining and chemical manufacturing processes involving reactions, separations, and blending. It may also be requested by the permit reviewer for other applications. Table 2 should represent the total material balance; that is, all streams into the system and all streams out. Additional sheets may be attached if necessary. Complex material balances may be presented on spreadsheets or indicated using process flow diagrams. All materials in the process should be addressed whether or not they directly result in the emission of an air contaminant. All production rates must be based on maximum operating conditions.

J. Is a list of MSS activities attached?	Yes
Are the MSS activities listed and discussed separately, each complete with the authorization mechanism or emission rates, frequency, duration, and supporting information if authorized by this permit?	Yes
K. Is a discussion of state regulatory requirements attached, addressing 30 TAC Chapters 101, 111, 112, 113, 115, and 117?	Yes
For all applicable chapters, does the discussion include how the facility will comply with the requirements of the chapter?	Yes
For all not applicable chapters, does the discussion include why the chapter is not applicable?	Yes
M. Is a Public Involvement Plan (PIP) required for this project?	No
Requirements can be found at the following link: https://www.tceq.texas.gov/permitting/air#pip	
N. Are all other required tables, calculations, and descriptions attached?	Yes

VII. Signature

The owner or operator of the facility must apply for authority to construct. The appropriate company official (owner, plant manager, president, vice president, or environmental director) must sign all copies of the application. The applicant's consultant cannot sign the application.

This application must be submitted and signed in STEERS.

I. Additional Questions for Specific Permit Types and Actions

E. Agricultural Facilities (THSC § 382.020)	
Do the facilities handle, load, unload, dry, manufacture, or process grain, seed, legumes, or vegetable fibers (agricultural facilities)?	No

G. Rock and Concrete Crushers

Is this a project for a rock or concrete crushing facility?	No

VIII. Federal Regulatory Questions	
Indicate if any of the following requirements apply to the proposed facility. Note that some federal regulations apply to minor sources. Enter all applicable Subparts.	
A. Title 40 CFR Part 60	
Do NSPS subpart(s) apply to a facility in this application?	Yes
List applicable subparts you will demonstrate compliance with (e.g. Subpart M)	A, KKKK, IIII, JJJJ
B. Title 40 CFR Part 61	
Do NESHAP subpart(s) apply to a facility in this application?	No

C. Title 40 CFR Part 63

Do MACT subpart(s) apply to a facility in this application?	Yes
List applicable subparts you will demonstrate compliance with (e.g. Subpart VVVV)	A, YYYY, ZZZZ, DDDDD

IX. Emissions Review

A. Impacts Analysis

Any change that may result in an increase in off-property concentrations of air contaminants requires an air quality impacts demonstration, which may include a qualitative analysis, the MERA, and/or modeling. Information regarding the air quality impacts demonstration must be provided with the application and show compliance with all state and federal requirements. Detailed requirements for the information necessary to make the demonstration are listed on the Impacts sheet.

Are there any increases in short-term and/or long-term allowable emission rates?	Yes
Can all the emission rate increases be attributed to speciation of currently authorized PM emissions and/or revisions of AP-42 or TCEQ guidance?	No
Are there any new or modified control devices or emission sources?	Yes
Are there any changes to emission point discharge parameters? Consider all parameters on the Stack Parameters sheet, including location.	Yes
Will any PBR registrations, standard permit, or standard exemptions be incorporated by consolidation?	No
Does this project require an impacts analysis?	Yes
Will off property impacts for any of the pollutants require Tier III Toxicology Effects Evaluation as defined in Appendix D of MERA?	No

B. Disaster Review

If the proposed facility will handle sufficient quantities of certain chemicals which, if released accidentally, would cause off-property impacts that could be immediately dangerous to life and health, a disaster review analysis may be required as part of the application. Contact the appropriate NSR permitting section for assistance at (512) 239-1250. For additional guidance, see "Disaster Review Fact Sheet" at the webpage linked below.

https://www.tceq.texas.gov/permitting/air/nav/air_docs_newsource.html

Does this application involve any air contaminants for which a disaster review is required?	No

C. Air Pollutant Watch List

Certain areas of the state have concentrations of specific pollutants that are of concern. The TCEQ has designated these portions of the state as watch list areas. Location of a facility in a watch list area could result in additional restrictions on emissions of the affected air pollutant(s) or additional permit requirements. The location of the areas and pollutants of interest can be found at the link below:

https://www.tceq.texas.gov/toxicology/apwl/apwl.html

Is the proposed facility located in a watch list area?	No

D. Mass Emissions Cap and Trade

Is this facility located at a site within the Houston/Galveston nonattainment area (Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty, Montgomery, and Waller Counties)?	No

X. Additional Requirements

A. Bulk Fuel Terminals

Is this project for a bulk fuel terminal?	No

B. Plant Fuel Gas Facilities

Does this site utilize plant fuel gas?	No

Permit primary industry (must be selected for workbook to function)	Chemical / Energy

Action Requested (only 1 action per FIN)	Include these emissions in annual (tpy) summary?	Facility ID Number (FIN)	Emission Point Number (EPN)	Source Name	Pollutant	Current Short-Term (lb/hr)	Current Long-Term (tpy)	Consolidated Current Short-Term (lb/hr)	Consolidated Current Long-Term (tpy)	Proposed Short-Term (lb/hr)	Proposed Long-Term (tpy)	Short-Term Difference (lb/hr)	Long-Term Difference (tpy)	Unit Type (Used for reviewing BACT and Monitoring Requirements)	Unit Type Notes (only if "other" unit type in Column O)
New/Modified	Yes	NGFUG	NGFUG	Natural Gas Piping Fugitives	VOC					0.001055725	0.004624076	*0.0011*	*0.0047*	Fugitives: Piping and Equipment Leak	
					H2S					4.97994E-05	0.000218121	*0.0001*	*0.0003*		
					CO2					--	0.011020927	0	*0.0111*		
					CH4					--	26.35691964	0	*26.357*		
					CO2 Equivalent					--	738.004771	0	*738.0048*		
New/Modified	Yes	NH3FUG	NH3FUG	SCR Delivery System Fugitives	NH3					0.0152076	0.066609288	*0.0153*	*0.0667*	Fugitives: Piping and Equipment Leak	
New/Modified	Yes	CO-1	CO-1	Wet Surface Air Cooler (WSAC) 1	PM					0.11889504	0.520760275	*0.1189*	*0.5208*	Cooling Tower	
					PM10					0.05944273	0.260359159	*0.0595*	*0.2604*		
					PM2.5					0.00024211	0.001060442	*0.0003*	*0.0011*		
New/Modified	Yes	CO-2	CO-2	Wet Surface Air Cooler (WSAC) 2	PM					0.11889504	0.520760275	*0.1189*	*0.5208*	Cooling Tower	
					PM10					0.05944273	0.260359159	*0.0595*	*0.2604*		
					PM2.5					0.00024211	0.001060442	*0.0003*	*0.0011*		
New/Modified	Yes	CO-3	CO-3	Wet Surface Air Cooler (WSAC) 3	PM					0.11889504	0.520760275	*0.1189*	*0.5208*	Cooling Tower	
					PM10					0.05944273	0.260359159	*0.0595*	*0.2604*		
					PM2.5					0.00024211	0.001060442	*0.0003*	*0.0011*		
New/Modified	Yes	CO-4	CO-4	Wet Surface Air Cooler (WSAC) 4	PM					0.11889504	0.520760275	*0.1189*	*0.5208*	Cooling Tower	
					PM10					0.05944273	0.260359159	*0.0595*	*0.2604*		
					PM2.5					0.00024211	0.001060442	*0.0003*	*0.0011*		
New/Modified	Yes	CO-5	CO-5	Wet Surface Air Cooler (WSAC) 5	PM					0.11889504	0.520760275	*0.1189*	*0.5208*	Cooling Tower	
					PM10					0.05944273	0.260359159	*0.0595*	*0.2604*		
					PM2.5					0.00024211	0.001060442	*0.0003*	*0.0011*		
New/Modified	Yes	CO-6	CO-6	Wet Surface Air Cooler (WSAC) 6	PM					0.0810648	0.355063824	*0.0811*	*0.3551*	Cooling Tower	
					PM10					0.040529134	0.177517608	*0.0406*	*0.1776*		
					PM2.5					0.000165075	0.000723028	*0.0002*	*0.0008*		
New/Modified	Yes	CO-7	CO-7	Wet Surface Air Cooler (WSAC) 7	PM					0.0810648	0.355063824	*0.0811*	*0.3551*	Cooling Tower	
					PM10					0.040529134	0.177517608	*0.0406*	*0.1776*		
					PM2.5					0.000165075	0.000723028	*0.0002*	*0.0008*		
New/Modified	Yes	CO-8	CO-8	Wet Surface Air Cooler (WSAC) 8	PM					0.0810648	0.355063824	*0.0811*	*0.3551*	Cooling Tower	
					PM10					0.040529134	0.177517608	*0.0406*	*0.1776*		
					PM2.5					0.000165075	0.000723028	*0.0002*	*0.0008*		
New/Modified	Yes	CO-9	CO-9	Wet Surface Air Cooler (WSAC) 9	PM					0.0810648	0.355063824	*0.0811*	*0.3551*	Cooling Tower	
					PM10					0.040529134	0.177517608	*0.0406*	*0.1776*		
					PM2.5					0.000165075	0.000723028	*0.0002*	*0.0008*		
New/Modified	Yes	CO-10	CO-10	Wet Surface Air Cooler (WSAC) 10	PM					0.0810648	0.355063824	*0.0811*	*0.3551*	Cooling Tower	
					PM10					0.040529134	0.177517608	*0.0406*	*0.1776*		
					PM2.5					0.000165075	0.000723028	*0.0002*	*0.0008*		
New/Modified	Yes	CO-11	CO-11	Wet Surface Air Cooler (WSAC) 11	PM					0.0810648	0.355063824	*0.0811*	*0.3551*	Cooling Tower	
					PM10					0.040529134	0.177517608	*0.0406*	*0.1776*		
					PM2.5					0.000165075	0.000723028	*0.0002*	*0.0008*		
New/Modified	Yes	CO-12	CO-12	Wet Surface Air Cooler (WSAC) 12	PM					0.0810648	0.355063824	*0.0811*	*0.3551*	Cooling Tower	
					PM10					0.040529134	0.177517608	*0.0406*	*0.1776*		
					PM2.5					0.000165075	0.000723028	*0.0002*	*0.0008*		
New/Modified	Yes	CO-13	CO-13	Wet Surface Air Cooler (WSAC) 13	PM					0.0810648	0.355063824	*0.0811*	*0.3551*	Cooling Tower	
					PM10					0.040529134	0.177517608	*0.0406*	*0.1776*		
					PM2.5					0.000165075	0.000723028	*0.0002*	*0.0008*		
New/Modified	Yes	CO-14	CO-14	Wet Surface Air Cooler (WSAC) 14	PM					0.0810648	0.355063824	*0.0811*	*0.3551*	Cooling Tower	
					PM10					0.040529134	0.177517608	*0.0406*	*0.1776*		
					PM2.5					0.000165075	0.000723028	*0.0002*	*0.0008*		
New/Modified	Yes	CO-15	CO-15	Wet Surface Air Cooler (WSAC) 15	PM					0.0810648	0.355063824	*0.0811*	*0.3551*	Cooling Tower	
					PM10					0.040529134	0.177517608	*0.0406*	*0.1776*		
					PM2.5					0.000165075	0.000723028	*0.0002*	*0.0008*		
New/Modified	Yes	CO-16	CO-16	Wet Surface Air Cooler (WSAC) 16	PM					0.0810648	0.355063824	*0.0811*	*0.3551*	Cooling Tower	
					PM10					0.040529134	0.177517608	*0.0406*	*0.1776*		
					PM2.5					0.000165075	0.000723028	*0.0002*	*0.0008*		
New/Modified	Yes	CO-17	CO-17	Wet Surface Air Cooler (WSAC) 17	PM					0.0810648	0.355063824	*0.0811*	*0.3551*	Cooling Tower	
					PM10					0.040529134	0.177517608	*0.0406*	*0.1776*		
					PM2.5					0.000165075	0.000723028	*0.0002*	*0.0008*		
New/Modified	Yes	CO-18	CO-18	Wet Surface Air Cooler (WSAC) 18	PM					0.0810648	0.355063824	*0.0811*	*0.3551*	Cooling Tower	
					PM10					0.040529134	0.177517608	*0.0406*	*0.1776*		
					PM2.5					0.000165075	0.000723028	*0.0002*	*0.0008*		
New/Modified	Yes	CO-19	CO-19	Wet Surface Air Cooler (WSAC) 19	PM					0.0810648	0.355063824	*0.0811*	*0.3551*	Cooling Tower	
					PM10					0.040529134	0.177517608	*0.0406*	*0.1776*		
					PM2.5					0.000165075	0.000723028	*0.0002*	*0.0008*		

Action Requested (only 1 action per FIN)	Include these emissions in annual (tpy) summary?	Facility ID Number (FIN)	Emission Point Number (EPN)	Source Name	Pollutant	Current Short-Term (lb/hr)	Current Long-Term (tpy)	Consolidated Current Short-Term (lb/hr)	Consolidated Current Long-Term (tpy)	Proposed Short-Term (lb/hr)	Proposed Long-Term (tpy)	Short-Term Difference (lb/hr)	Long-Term Difference (tpy)	Unit Type (Used for reviewing BACT and Monitoring Requirements)	Unit Type Notes (only if "other" unit type in Column O)
New/Modified	Yes	CT-1A	CT-1A	Siemens SGT-800 Turbine 1 (Normal Operations)	VOC					1.365373353	--	*1.3654*	0	Turbine: Simple Cycle, Natural Gas	
					NOx					4.859284343	--	*4.8593*	0		
					CO					5.914364773	--	*5.9144*	0		
					NH3					7.181728653	--	*7.1818*	0		
					SO2					0.739448981	--	*0.7395*	0		
					H2SO4					0.113166841	--	*0.1132*	0		
					PM					3.252434927	--	*3.2525*	0		
					PM10					3.252434927	--	*3.2525*	0		
					PM2.5					3.252434927	--	*3.2525*	0		
					CO2 Equivalent					--	--	0	0		
New/Modified	Yes	CT-1A	CT-1A	Siemens SGT-800 Turbine 1 (MSS)	VOC					11.05854075	--	*11.0586*	0	Turbine: Simple Cycle, Natural Gas	
					NOx					17.41557061	--	*17.4156*	0		
					CO					114.5486189	--	*114.5487*	0		
					NH3					7.181728653	--	*7.1818*	0		
					SO2					0.739448981	--	*0.7395*	0		
					H2SO4					0.113166841	--	*0.1132*	0		
					PM					3.252434927	--	*3.2525*	0		
					PM10					3.252434927	--	*3.2525*	0		
					PM2.5					3.252434927	--	*3.2525*	0		
					CO2 Equivalent					--	--	0	0		
New/Modified	Yes	CT-1A	CT-1A	Siemens SGT-800 Turbine 1 (Annual)	VOC					--	6.489935288	0	*6.49*	Turbine: Simple Cycle, Natural Gas	
					NOx					--	21.99346542	0	*21.9935*		
					CO					--	31.18291771	0	*31.183*		
					NH3					--	15.72798575	0	*15.728*		
					SO2					--	3.238786535	0	*3.2388*		
					H2SO4					--	0.495670763	0	*0.4957*		
					PM					--	14.24566498	0	*14.2457*		
					PM10					--	14.24566498	0	*14.2457*		
					PM2.5					--	14.24566498	0	*14.2457*		
					CO2					--	270087.19	0	*270087.19*		
					CH4					--	5.090222201	0	*5.0903*		
					N2O					--	0.50902222	0	*0.5091*		
					CO2 Equivalent					--	270364.6071	0	*270364.6071*		
New/Modified	Yes	CT-2A	CT-2A	Siemens SGT-800 Turbine 2 (Normal Operations)	VOC					1.365373353	--	*1.3654*	0	Turbine: Simple Cycle, Natural Gas	
					NOx					4.859284343	--	*4.8593*	0		
					CO					5.914364773	--	*5.9144*	0		
					NH3					7.181728653	--	*7.1818*	0		
					SO2					0.739448981	--	*0.7395*	0		
					H2SO4					0.113166841	--	*0.1132*	0		
					PM					3.252434927	--	*3.2525*	0		
					PM10					3.252434927	--	*3.2525*	0		
					PM2.5					3.252434927	--	*3.2525*	0		
					CO2 Equivalent					--	--	0	0		
New/Modified	Yes	CT-2A	CT-2A	Siemens SGT-800 Turbine 2 (MSS)	VOC					11.05854075	--	*11.0586*	0	Turbine: Simple Cycle, Natural Gas	
					NOx					17.41557061	--	*17.4156*	0		
					CO					114.5486189	--	*114.5487*	0		
					NH3					7.181728653	--	*7.1818*	0		
					SO2					0.739448981	--	*0.7395*	0		
					H2SO4					0.113166841	--	*0.1132*	0		
					PM					3.252434927	--	*3.2525*	0		
					PM10					3.252434927	--	*3.2525*	0		
					PM2.5					3.252434927	--	*3.2525*	0		
					CO2 Equivalent					--	--	0	0		
New/Modified	Yes	CT-2A	CT-2A	Siemens SGT-800 Turbine 2 (Annual)	VOC					--	6.489935288	0	*6.49*	Turbine: Simple Cycle, Natural Gas	
					NOx					--	21.99346542	0	*21.9935*		
					CO					--	31.18291771	0	*31.183*		
					NH3					--	15.72798575	0	*15.728*		
					SO2					--	3.238786535	0	*3.2388*		
					H2SO4					--	0.495670763	0	*0.4957*		
					PM					--	14.24566498	0	*14.2457*		
					PM10					--	14.24566498	0	*14.2457*		
					PM2.5					--	14.24566498	0	*14.2457*		
					CO2					--	270087.19	0	*270087.19*		
					CH4					--	5.090222201	0	*5.0903*		
					N2O					--	0.50902222	0	*0.5091*		
					CO2 Equivalent					--	270364.6071	0	*270364.6071*		
New/Modified	Yes	CT-3A	CT-3A	Siemens SGT-800 Turbine 3 (Normal Operations)	VOC					1.365373353	--	*1.3654*	0	Turbine: Simple Cycle, Natural Gas	
					NOx					4.859284343	--	*4.8593*	0		
					CO					5.914364773	--	*5.9144*	0		
					NH3					7.181728653	--	*7.1818*	0		
					SO2					0.739448981	--	*0.7395*	0		
					H2SO4					0.113166841	--	*0.1132*	0		
					PM					3.252434927	--	*3.2525*	0		
					PM10					3.252434927	--	*3.2525*	0		
					PM2.5					3.252434927	--	*3.2525*	0		

Action Requested (only 1 action per FIN)	Include these emissions in annual (tpy) summary?	Facility ID Number (FIN)	Emission Point Number (EPN)	Source Name	Pollutant	Current Short-Term (lb/hr)	Current Long-Term (tpy)	Consolidated Current Short-Term (lb/hr)	Consolidated Current Long-Term (tpy)	Proposed Short-Term (lb/hr)	Proposed Long-Term (tpy)	Short-Term Difference (lb/hr)	Long-Term Difference (tpy)	Unit Type (Used for reviewing BACT and Monitoring Requirements)	Unit Type Notes (only if "other" unit type in Column O)
					CO2 Equivalent					--	--	0	0		
New/Modified	Yes	CT-3A	CT-3A	Siemens SGT-800 Turbine 3 (MSS)	VOC					11.05854075	--	*11.0586*	0	Turbine: Simple Cycle, Natural Gas	
					NOx					17.41557061	--	*17.4156*	0		
					CO					114.5486189	--	*114.5487*	0		
					NH3					7.181728653	--	*7.1818*	0		
					SO2					0.739448981	--	*0.7395*	0		
					H2SO4					0.113166841	--	*0.1132*	0		
					PM					3.252434927	--	*3.2525*	0		
					PM10					3.252434927	--	*3.2525*	0		
					PM2.5					3.252434927	--	*3.2525*	0		
					CO2 Equivalent					--	--	0	0		
New/Modified	Yes	CT-3A	CT-3A	Siemens SGT-800 Turbine 3 (Annual)	VOC					--	6.489935288	0	*6.49*	Turbine: Simple Cycle, Natural Gas	
					NOx					--	21.99346542	0	*21.9935*		
					CO					--	31.18291771	0	*31.183*		
					NH3					--	15.72798575	0	*15.728*		
					SO2					--	3.238786535	0	*3.2388*		
					H2SO4					--	0.495670763	0	*0.4957*		
					PM					--	14.24566498	0	*14.2457*		
					PM10					--	14.24566498	0	*14.2457*		
					PM2.5					--	14.24566498	0	*14.2457*		
					CO2					--	270087.19	0	*270087.19*		
					CH4					--	5.090222201	0	*5.0903*		
					N2O					--	0.50902222	0	*0.5091*		
					CO2 Equivalent					--	270364.6071	0	*270364.6071*		
New/Modified	Yes	CT-4A	CT-4A	Siemens SGT-800 Turbine 4 (Normal Operations)	VOC					1.365373353	--	*1.3654*	0	Turbine: Simple Cycle, Natural Gas	
					NOx					4.859284343	--	*4.8593*	0		
					CO					5.914364773	--	*5.9144*	0		
					NH3					7.181728653	--	*7.1818*	0		
					SO2					0.739448981	--	*0.7395*	0		
					H2SO4					0.113166841	--	*0.1132*	0		
					PM					3.252434927	--	*3.2525*	0		
					PM10					3.252434927	--	*3.2525*	0		
					PM2.5					3.252434927	--	*3.2525*	0		
					CO2 Equivalent					--	--	0	0		
New/Modified	Yes	CT-4A	CT-4A	Siemens SGT-800 Turbine 4 (MSS)	VOC					11.05854075	--	*11.0586*	0	Turbine: Simple Cycle, Natural Gas	
					NOx					17.41557061	--	*17.4156*	0		
					CO					114.5486189	--	*114.5487*	0		
					NH3					7.181728653	--	*7.1818*	0		
					SO2					0.739448981	--	*0.7395*	0		
					H2SO4					0.113166841	--	*0.1132*	0		
					PM					3.252434927	--	*3.2525*	0		
					PM10					3.252434927	--	*3.2525*	0		
					PM2.5					3.252434927	--	*3.2525*	0		
					CO2 Equivalent					--	--	0	0		
New/Modified	Yes	CT-4A	CT-4A	Siemens SGT-800 Turbine 4 (Annual)	VOC					--	6.489935288	0	*6.49*	Turbine: Simple Cycle, Natural Gas	
					NOx					--	21.99346542	0	*21.9935*		
					CO					--	31.18291771	0	*31.183*		
					NH3					--	15.72798575	0	*15.728*		
					SO2					--	3.238786535	0	*3.2388*		
					H2SO4					--	0.495670763	0	*0.4957*		
					PM					--	14.24566498	0	*14.2457*		
					PM10					--	14.24566498	0	*14.2457*		
					PM2.5					--	14.24566498	0	*14.2457*		
					CO2					--	270087.19	0	*270087.19*		
					CH4					--	5.090222201	0	*5.0903*		
					N2O					--	0.50902222	0	*0.5091*		
					CO2 Equivalent					--	270364.6071	0	*270364.6071*		
New/Modified	Yes	CT-5A	CT-5A	Siemens SGT-800 Turbine 5 (Normal Operations)	VOC					1.365373353	--	*1.3654*	0	Turbine: Simple Cycle, Natural Gas	
					NOx					4.859284343	--	*4.8593*	0		
					CO					5.914364773	--	*5.9144*	0		
					NH3					7.181728653	--	*7.1818*	0		
					SO2					0.739448981	--	*0.7395*	0		
					H2SO4					0.113166841	--	*0.1132*	0		
					PM					3.252434927	--	*3.2525*	0		
					PM10					3.252434927	--	*3.2525*	0		
					PM2.5					3.252434927	--	*3.2525*	0		
					CO2 Equivalent					--	--	0	0		
New/Modified	Yes	CT-5A	CT-5A	Siemens SGT-800 Turbine 5 (MSS)	VOC					11.05854075	--	*11.0586*	0	Turbine: Simple Cycle, Natural Gas	
					NOx					17.41557061	--	*17.4156*	0		
					CO					114.5486189	--	*114.5487*	0		
					NH3					7.181728653	--	*7.1818*	0		
					SO2					0.739448981	--	*0.7395*	0		
					H2SO4					0.113166841	--	*0.1132*	0		
					PM					3.252434927	--	*3.2525*	0		
					PM10					3.252434927	--	*3.2525*	0		
					PM2.5					3.252434927	--	*3.2525*	0		

Action Requested (only 1 action per FIN)	Include these emissions in annual (tpy) summary?	Facility ID Number (FIN)	Emission Point Number (EPN)	Source Name	Pollutant	Current Short-Term (lb/hr)	Current Long-Term (tpy)	Consolidated Current Short-Term (lb/hr)	Consolidated Current Long-Term (tpy)	Proposed Short-Term (lb/hr)	Proposed Long-Term (tpy)	Short-Term Difference (lb/hr)	Long-Term Difference (tpy)	Unit Type (Used for reviewing BACT and Monitoring Requirements)	Unit Type Notes (only if "other" unit type in Column O)
					CO2 Equivalent					--	--	0	0		
New/Modified	Yes	CT-5A	CT-5A	Siemens SGT-800 Turbine 5 (Annual)	VOC					--	6.489935288	0	*6.49*	Turbine: Simple Cycle, Natural Gas	
					NOx					--	21.99346542	0	*21.9935*		
					CO					--	31.18291771	0	*31.183*		
					NH3					--	15.72798575	0	*15.728*		
					SO2					--	3.238786535	0	*3.2388*		
					H2SO4					--	0.495670763	0	*0.4957*		
					PM					--	14.24566498	0	*14.2457*		
					PM10					--	14.24566498	0	*14.2457*		
					PM2.5					--	14.24566498	0	*14.2457*		
					CO2					--	270087.19	0	*270087.19*		
					CH4					--	5.090222201	0	*5.0903*		
					N2O					--	0.50902222	0	*0.5091*		
					CO2 Equivalent					--	270364.6071	0	*270364.6071*		
New/Modified	Yes	CT-6A	CT-6A	Siemens SGT-800 Turbine 6 (Normal Operations)	VOC					1.365373353	--	*1.3654*	0	Turbine: Simple Cycle, Natural Gas	
					NOx					4.859284343	--	*4.8593*	0		
					CO					5.914364773	--	*5.9144*	0		
					NH3					7.181728653	--	*7.1818*	0		
					SO2					0.739448981	--	*0.7395*	0		
					H2SO4					0.113166841	--	*0.1132*	0		
					PM					3.252434927	--	*3.2525*	0		
					PM10					3.252434927	--	*3.2525*	0		
					PM2.5					3.252434927	--	*3.2525*	0		
					CO2 Equivalent					--	--	0	0		
New/Modified	Yes	CT-6A	CT-6A	Siemens SGT-800 Turbine 6 (MSS)	VOC					11.05854075	--	*11.0586*	0	Turbine: Simple Cycle, Natural Gas	
					NOx					17.41557061	--	*17.4156*	0		
					CO					114.5486189	--	*114.5487*	0		
					NH3					7.181728653	--	*7.1818*	0		
					SO2					0.739448981	--	*0.7395*	0		
					H2SO4					0.113166841	--	*0.1132*	0		
					PM					3.252434927	--	*3.2525*	0		
					PM10					3.252434927	--	*3.2525*	0		
					PM2.5					3.252434927	--	*3.2525*	0		
					CO2 Equivalent					--	--	0	0		
New/Modified	Yes	CT-6A	CT-6A	Siemens SGT-800 Turbine 6 (Annual)	VOC					--	6.489935288	0	*6.49*	Turbine: Simple Cycle, Natural Gas	
					NOx					--	21.99346542	0	*21.9935*		
					CO					--	31.18291771	0	*31.183*		
					NH3					--	15.72798575	0	*15.728*		
					SO2					--	3.238786535	0	*3.2388*		
					H2SO4					--	0.495670763	0	*0.4957*		
					PM					--	14.24566498	0	*14.2457*		
					PM10					--	14.24566498	0	*14.2457*		
					PM2.5					--	14.24566498	0	*14.2457*		
					CO2					--	270087.19	0	*270087.19*		
					CH4					--	5.090222201	0	*5.0903*		
					N2O					--	0.50902222	0	*0.5091*		
					CO2 Equivalent					--	270364.6071	0	*270364.6071*		
New/Modified	Yes	CT-7A	CT-7A	Siemens SGT-800 Turbine 7 (Normal Operations)	VOC					1.365373353	--	*1.3654*	0	Turbine: Simple Cycle, Natural Gas	
					NOx					4.859284343	--	*4.8593*	0		
					CO					5.914364773	--	*5.9144*	0		
					NH3					7.181728653	--	*7.1818*	0		
					SO2					0.739448981	--	*0.7395*	0		
					H2SO4					0.113166841	--	*0.1132*	0		
					PM					3.252434927	--	*3.2525*	0		
					PM10					3.252434927	--	*3.2525*	0		
					PM2.5					3.252434927	--	*3.2525*	0		
					CO2 Equivalent					--	--	0	0		
New/Modified	Yes	CT-7A	CT-7A	Siemens SGT-800 Turbine 7 (MSS)	VOC					11.05854075	--	*11.0586*	0	Turbine: Simple Cycle, Natural Gas	
					NOx					17.41557061	--	*17.4156*	0		
					CO					114.5486189	--	*114.5487*	0		
					NH3					7.181728653	--	*7.1818*	0		
					SO2					0.739448981	--	*0.7395*	0		
					H2SO4					0.113166841	--	*0.1132*	0		
					PM					3.252434927	--	*3.2525*	0		
					PM10					3.252434927	--	*3.2525*	0		
					PM2.5					3.252434927	--	*3.2525*	0		
					CO2 Equivalent					--	--	0	0		
New/Modified	Yes	CT-7A	CT-7A	Siemens SGT-800 Turbine 7 (Annual)	VOC					--	6.489935288	0	*6.49*	Turbine: Simple Cycle, Natural Gas	
					NOx					--	21.99346542	0	*21.9935*		
					CO					--	31.18291771	0	*31.183*		
					NH3					--	15.72798575	0	*15.728*		
					SO2					--	3.238786535	0	*3.2388*		
					H2SO4					--	0.495670763	0	*0.4957*		
					PM					--	14.24566498	0	*14.2457*		
					PM10					--	14.24566498	0	*14.2457*		
					PM2.5					--	14.24566498	0	*14.2457*		

Action Requested (only 1 action per FIN)	Include these emissions in annual (tpy) summary?	Facility ID Number (FIN)	Emission Point Number (EPN)	Source Name	Pollutant	Current Short-Term (lb/hr)	Current Long-Term (tpy)	Consolidated Current Short-Term (lb/hr)	Consolidated Current Long-Term (tpy)	Proposed Short-Term (lb/hr)	Proposed Long-Term (tpy)	Short-Term Difference (lb/hr)	Long-Term Difference (tpy)	Unit Type (Used for reviewing BACT and Monitoring Requirements)	Unit Type Notes (only if "other" unit type in Column O)
					CO2					--	270087.19	0	*270087.19*		
					CH4					--	5.090222201	0	*5.0903*		
					N2O					--	0.50902222	0	*0.5091*		
					CO2 Equivalent					--	270364.6071	0	*270364.6071*		
New/Modified	Yes	CT-8A	CT-8A	Siemens SGT-800 Turbine 8 (Normal Operations)	VOC					1.365373353	--	*1.3654*	0	Turbine: Simple Cycle, Natural Gas	
					NOx					4.859284343	--	*4.8593*	0		
					CO					5.914364773	--	*5.9144*	0		
					NH3					7.181728653	--	*7.1818*	0		
					SO2					0.739448981	--	*0.7395*	0		
					H2SO4					0.113166841	--	*0.1132*	0		
					PM					3.252434927	--	*3.2525*	0		
					PM10					3.252434927	--	*3.2525*	0		
					PM2.5					3.252434927	--	*3.2525*	0		
					CO2 Equivalent					--	--	0	0		
New/Modified	Yes	CT-8A	CT-8A	Siemens SGT-800 Turbine 8 (MSS)	VOC					11.05854075	--	*11.0586*	0	Turbine: Simple Cycle, Natural Gas	
					NOx					17.41557061	--	*17.4156*	0		
					CO					114.5486189	--	*114.5487*	0		
					NH3					7.181728653	--	*7.1818*	0		
					SO2					0.739448981	--	*0.7395*	0		
					H2SO4					0.113166841	--	*0.1132*	0		
					PM					3.252434927	--	*3.2525*	0		
					PM10					3.252434927	--	*3.2525*	0		
					PM2.5					3.252434927	--	*3.2525*	0		
					CO2 Equivalent					--	--	0	0		
New/Modified	Yes	CT-8A	CT-8A	Siemens SGT-800 Turbine 8 (Annual)	VOC					--	6.489935288	0	*6.49*	Turbine: Simple Cycle, Natural Gas	
					NOx					--	21.99346542	0	*21.9935*		
					CO					--	31.18291771	0	*31.183*		
					NH3					--	15.72798575	0	*15.728*		
					SO2					--	3.238786535	0	*3.2388*		
					H2SO4					--	0.495670763	0	*0.4957*		
					PM					--	14.24566498	0	*14.2457*		
					PM10					--	14.24566498	0	*14.2457*		
					PM2.5					--	14.24566498	0	*14.2457*		
					CO2					--	270087.19	0	*270087.19*		
					CH4					--	5.090222201	0	*5.0903*		
					N2O					--	0.50902222	0	*0.5091*		
					CO2 Equivalent					--	270364.6071	0	*270364.6071*		
New/Modified	Yes	CT-9A	CT-9A	Siemens SGT-800 Turbine 9 (Normal Operations)	VOC					1.365373353	--	*1.3654*	0	Turbine: Simple Cycle, Natural Gas	
					NOx					4.859284343	--	*4.8593*	0		
					CO					5.914364773	--	*5.9144*	0		
					NH3					7.181728653	--	*7.1818*	0		
					SO2					0.739448981	--	*0.7395*	0		
					H2SO4					0.113166841	--	*0.1132*	0		
					PM					3.252434927	--	*3.2525*	0		
					PM10					3.252434927	--	*3.2525*	0		
					PM2.5					3.252434927	--	*3.2525*	0		
					CO2 Equivalent					--	--	0	0		
New/Modified	Yes	CT-9A	CT-9A	Siemens SGT-800 Turbine 9 (MSS)	VOC					11.05854075	--	*11.0586*	0	Turbine: Simple Cycle, Natural Gas	
					NOx					17.41557061	--	*17.4156*	0		
					CO					114.5486189	--	*114.5487*	0		
					NH3					7.181728653	--	*7.1818*	0		
					SO2					0.739448981	--	*0.7395*	0		
					H2SO4					0.113166841	--	*0.1132*	0		
					PM					3.252434927	--	*3.2525*	0		
					PM10					3.252434927	--	*3.2525*	0		
					PM2.5					3.252434927	--	*3.2525*	0		
					CO2 Equivalent					--	--	0	0		
New/Modified	Yes	CT-9A	CT-9A	Siemens SGT-800 Turbine 9 (Annual)	VOC					--	6.489935288	0	*6.49*	Turbine: Simple Cycle, Natural Gas	
					NOx					--	21.99346542	0	*21.9935*		
					CO					--	31.18291771	0	*31.183*		
					NH3					--	15.72798575	0	*15.728*		
					SO2					--	3.238786535	0	*3.2388*		
					H2SO4					--	0.495670763	0	*0.4957*		
					PM					--	14.24566498	0	*14.2457*		
					PM10					--	14.24566498	0	*14.2457*		
					PM2.5					--	14.24566498	0	*14.2457*		
					CO2					--	270087.19	0	*270087.19*		
					CH4					--	5.090222201	0	*5.0903*		
					N2O					--	0.50902222	0	*0.5091*		
					CO2 Equivalent					--	270364.6071	0	*270364.6071*		
New/Modified	Yes	CT-10A	CT-10A	Siemens SGT-800 Turbine 10 (Normal Operations)	VOC					1.365373353	--	*1.3654*	0	Turbine: Simple Cycle, Natural Gas	
					NOx					4.859284343	--	*4.8593*	0		
					CO					5.914364773	--	*5.9144*	0		
					NH3					7.181728653	--	*7.1818*	0		
					SO2					0.739448981	--	*0.7395*	0		

Action Requested (only 1 action per FIN)	Include these emissions in annual (tpy) summary?	Facility ID Number (FIN)	Emission Point Number (EPN)	Source Name	Pollutant	Current Short-Term (lb/hr)	Current Long-Term (tpy)	Consolidated Current Short-Term (lb/hr)	Consolidated Current Long-Term (tpy)	Proposed Short-Term (lb/hr)	Proposed Long-Term (tpy)	Short-Term Difference (lb/hr)	Long-Term Difference (tpy)	Unit Type (Used for reviewing BACT and Monitoring Requirements)	Unit Type Notes (only if "other" unit type in Column O)
					H2SO4					0.113166841	--	*0.1132*	0		
					PM					3.252434927	--	*3.2525*	0		
					PM10					3.252434927	--	*3.2525*	0		
					PM2.5					3.252434927	--	*3.2525*	0		
					CO2 Equivalent					--	--	0	0		
New/Modified	Yes	CT-10A	CT-10A	Siemens SGT-800 Turbine 10 (MSS)	VOC					11.05854075	--	*11.0586*	0	Turbine: Simple Cycle, Natural Gas	
					NOx					17.41557061	--	*17.4156*	0		
					CO					114.5486189	--	*114.5487*	0		
					NH3					7.181728653	--	*7.1818*	0		
					SO2					0.739448981	--	*0.7395*	0		
					H2SO4					0.113166841	--	*0.1132*	0		
					PM					3.252434927	--	*3.2525*	0		
					PM10					3.252434927	--	*3.2525*	0		
					PM2.5					3.252434927	--	*3.2525*	0		
					CO2 Equivalent					--	--	0	0		
New/Modified	Yes	CT-10A	CT-10A	Siemens SGT-800 Turbine 10 (Annual)	VOC					--	6.489935288	0	*6.49*	Turbine: Simple Cycle, Natural Gas	
					NOx					--	21.99346542	0	*21.9935*		
					CO					--	31.18291771	0	*31.183*		
					NH3					--	15.72798575	0	*15.728*		
					SO2					--	3.238786535	0	*3.2388*		
					H2SO4					--	0.495670763	0	*0.4957*		
					PM					--	14.24566498	0	*14.2457*		
					PM10					--	14.24566498	0	*14.2457*		
					PM2.5					--	14.24566498	0	*14.2457*		
					CO2					--	270087.19	0	*270087.19*		
					CH4					--	5.090222201	0	*5.0903*		
					N2O					--	0.50902222	0	*0.5091*		
					CO2 Equivalent					--	270364.6071	0	*270364.6071*		
New/Modified	Yes	CT-11A	CT-11A	Siemens SGT-800 Turbine 11 (Normal Operations)	VOC					1.365373353	--	*1.3654*	0	Turbine: Simple Cycle, Natural Gas	
					NOx					4.859284343	--	*4.8593*	0		
					CO					5.914364773	--	*5.9144*	0		
					NH3					7.181728653	--	*7.1818*	0		
					SO2					0.739448981	--	*0.7395*	0		
					H2SO4					0.113166841	--	*0.1132*	0		
					PM					3.252434927	--	*3.2525*	0		
					PM10					3.252434927	--	*3.2525*	0		
					PM2.5					3.252434927	--	*3.2525*	0		
					CO2 Equivalent					--	--	0	0		
New/Modified	Yes	CT-11A	CT-11A	Siemens SGT-800 Turbine 11 (MSS)	VOC					11.05854075	--	*11.0586*	0	Turbine: Simple Cycle, Natural Gas	
					NOx					17.41557061	--	*17.4156*	0		
					CO					114.5486189	--	*114.5487*	0		
					NH3					7.181728653	--	*7.1818*	0		
					SO2					0.739448981	--	*0.7395*	0		
					H2SO4					0.113166841	--	*0.1132*	0		
					PM					3.252434927	--	*3.2525*	0		
					PM10					3.252434927	--	*3.2525*	0		
					PM2.5					3.252434927	--	*3.2525*	0		
					CO2 Equivalent					--	--	0	0		
New/Modified	Yes	CT-11A	CT-11A	Siemens SGT-800 Turbine 11 (Annual)	VOC					--	6.489935288	0	*6.49*	Turbine: Simple Cycle, Natural Gas	
					NOx					--	21.99346542	0	*21.9935*		
					CO					--	31.18291771	0	*31.183*		
					NH3					--	15.72798575	0	*15.728*		
					SO2					--	3.238786535	0	*3.2388*		
					H2SO4					--	0.495670763	0	*0.4957*		
					PM					--	14.24566498	0	*14.2457*		
					PM10					--	14.24566498	0	*14.2457*		
					PM2.5					--	14.24566498	0	*14.2457*		
					CO2					--	270087.19	0	*270087.19*		
					CH4					--	5.090222201	0	*5.0903*		
					N2O					--	0.50902222	0	*0.5091*		
					CO2 Equivalent					--	270364.6071	0	*270364.6071*		
New/Modified	Yes	CT-12A	CT-12A	Siemens SGT-800 Turbine 12 (Normal Operations)	VOC					1.365373353	--	*1.3654*	0	Turbine: Simple Cycle, Natural Gas	
					NOx					4.859284343	--	*4.8593*	0		
					CO					5.914364773	--	*5.9144*	0		
					NH3					7.181728653	--	*7.1818*	0		
					SO2					0.739448981	--	*0.7395*	0		
					H2SO4					0.113166841	--	*0.1132*	0		
					PM					3.252434927	--	*3.2525*	0		
					PM10					3.252434927	--	*3.2525*	0		
					PM2.5					3.252434927	--	*3.2525*	0		
					CO2 Equivalent					--	--	0	0		
New/Modified	Yes	CT-12A	CT-12A	Siemens SGT-800 Turbine 12 (MSS)	VOC					11.05854075	--	*11.0586*	0	Turbine: Simple Cycle, Natural Gas	
					NOx					17.41557061	--	*17.4156*	0		
					CO					114.5486189	--	*114.5487*	0		
					NH3					7.181728653	--	*7.1818*	0		
					SO2					0.739448981	--	*0.7395*	0		

Action Requested (only 1 action per FIN)	Include these emissions in annual (tpy) summary?	Facility ID Number (FIN)	Emission Point Number (EPN)	Source Name	Pollutant	Current Short-Term (lb/hr)	Current Long-Term (tpy)	Consolidated Current Short-Term (lb/hr)	Consolidated Current Long-Term (tpy)	Proposed Short-Term (lb/hr)	Proposed Long-Term (tpy)	Short-Term Difference (lb/hr)	Long-Term Difference (tpy)	Unit Type (Used for reviewing BACT and Monitoring Requirements)	Unit Type Notes (only if "other" unit type in Column O)
					H2SO4					0.113166841	--	*0.1132*	0		
					PM					3.252434927	--	*3.2525*	0		
					PM10					3.252434927	--	*3.2525*	0		
					PM2.5					3.252434927	--	*3.2525*	0		
					CO2 Equivalent					--	--	0	0		
New/Modified	Yes	CT-12A	CT-12A	Siemens SGT-800 Turbine 12 (Annual)	VOC					--	6.489935288	0	*6.49*	Turbine: Simple Cycle, Natural Gas	
					NOx					--	21.99346542	0	*21.9935*		
					CO					--	31.18291771	0	*31.183*		
					NH3					--	15.72798575	0	*15.728*		
					SO2					--	3.238786535	0	*3.2388*		
					H2SO4					--	0.495670763	0	*0.4957*		
					PM					--	14.24566498	0	*14.2457*		
					PM10					--	14.24566498	0	*14.2457*		
					PM2.5					--	14.24566498	0	*14.2457*		
					CO2					--	270087.19	0	*270087.19*		
					CH4					--	5.090222201	0	*5.0903*		
					N2O					--	0.50902222	0	*0.5091*		
					CO2 Equivalent					--	270364.6071	0	*270364.6071*		
New/Modified	Yes	CT-13A	CT-13A	Siemens SGT-800 Turbine 13 (Normal Operations)	VOC					1.365373353	--	*1.3654*	0	Turbine: Simple Cycle, Natural Gas	
					NOx					4.859284343	--	*4.8593*	0		
					CO					5.914364773	--	*5.9144*	0		
					NH3					7.181728653	--	*7.1818*	0		
					SO2					0.739448981	--	*0.7395*	0		
					H2SO4					0.113166841	--	*0.1132*	0		
					PM					3.252434927	--	*3.2525*	0		
					PM10					3.252434927	--	*3.2525*	0		
					PM2.5					3.252434927	--	*3.2525*	0		
					CO2 Equivalent					--	--	0	0		
New/Modified	Yes	CT-13A	CT-13A	Siemens SGT-800 Turbine 13 (MSS)	VOC					11.05854075	--	*11.0586*	0	Turbine: Simple Cycle, Natural Gas	
					NOx					17.41557061	--	*17.4156*	0		
					CO					114.5486189	--	*114.5487*	0		
					NH3					7.181728653	--	*7.1818*	0		
					SO2					0.739448981	--	*0.7395*	0		
					H2SO4					0.113166841	--	*0.1132*	0		
					PM					3.252434927	--	*3.2525*	0		
					PM10					3.252434927	--	*3.2525*	0		
					PM2.5					3.252434927	--	*3.2525*	0		
					CO2 Equivalent					--	--	0	0		
New/Modified	Yes	CT-13A	CT-13A	Siemens SGT-800 Turbine 13 (Annual)	VOC					--	6.489935288	0	*6.49*	Turbine: Simple Cycle, Natural Gas	
					NOx					--	21.99346542	0	*21.9935*		
					CO					--	31.18291771	0	*31.183*		
					NH3					--	15.72798575	0	*15.728*		
					SO2					--	3.238786535	0	*3.2388*		
					H2SO4					--	0.495670763	0	*0.4957*		
					PM					--	14.24566498	0	*14.2457*		
					PM10					--	14.24566498	0	*14.2457*		
					PM2.5					--	14.24566498	0	*14.2457*		
					CO2					--	270087.19	0	*270087.19*		
					CH4					--	5.090222201	0	*5.0903*		
					N2O					--	0.50902222	0	*0.5091*		
					CO2 Equivalent					--	270364.6071	0	*270364.6071*		
New/Modified	Yes	CT-14A	CT-14A	Siemens SGT-800 Turbine 14 (Normal Operations)	VOC					1.365373353	--	*1.3654*	0	Turbine: Simple Cycle, Natural Gas	
					NOx					4.859284343	--	*4.8593*	0		
					CO					5.914364773	--	*5.9144*	0		
					NH3					7.181728653	--	*7.1818*	0		
					SO2					0.739448981	--	*0.7395*	0		
					H2SO4					0.113166841	--	*0.1132*	0		
					PM					3.252434927	--	*3.2525*	0		
					PM10					3.252434927	--	*3.2525*	0		
					PM2.5					3.252434927	--	*3.2525*	0		
					CO2 Equivalent					--	--	0	0		
New/Modified	Yes	CT-14A	CT-14A	Siemens SGT-800 Turbine 14 (MSS)	VOC					11.05854075	--	*11.0586*	0	Turbine: Simple Cycle, Natural Gas	
					NOx					17.41557061	--	*17.4156*	0		
					CO					114.5486189	--	*114.5487*	0		
					NH3					7.181728653	--	*7.1818*	0		
					SO2					0.739448981	--	*0.7395*	0		
					H2SO4					0.113166841	--	*0.1132*	0		
					PM					3.252434927	--	*3.2525*	0		
					PM10					3.252434927	--	*3.2525*	0		
					PM2.5					3.252434927	--	*3.2525*	0		
					CO2 Equivalent					--	--	0	0		
New/Modified	Yes	CT-14A	CT-14A	Siemens SGT-800 Turbine 14 (Annual)	VOC					--	6.489935288	0	*6.49*	Turbine: Simple Cycle, Natural Gas	
					NOx					--	21.99346542	0	*21.9935*		
					CO					--	31.18291771	0	*31.183*		
					NH3					--	15.72798575	0	*15.728*		
					SO2					--	3.238786535	0	*3.2388*		

Action Requested (only 1 action per FIN)	Include these emissions in annual (tpy) summary?	Facility ID Number (FIN)	Emission Point Number (EPN)	Source Name	Pollutant	Current Short-Term (lb/hr)	Current Long-Term (tpy)	Consolidated Current Short-Term (lb/hr)	Consolidated Current Long-Term (tpy)	Proposed Short-Term (lb/hr)	Proposed Long-Term (tpy)	Short-Term Difference (lb/hr)	Long-Term Difference (tpy)	Unit Type (Used for reviewing BACT and Monitoring Requirements)	Unit Type Notes (only if "other" unit type in Column O)
					H2SO4					--	0.495670763	0	*0.4957*		
					PM					--	14.24566498	0	*14.2457*		
					PM10					--	14.24566498	0	*14.2457*		
					PM2.5					--	14.24566498	0	*14.2457*		
					CO2					--	270087.19	0	*270087.19*		
					CH4					--	5.090222201	0	*5.0903*		
					N2O					--	0.50902222	0	*0.5091*		
					CO2 Equivalent					--	270364.6071	0	*270364.6071*		
New/Modified	Yes	CT-15A	CT-15A	Siemens SGT-800 Turbine 15 (Normal Operations)	VOC					1.365373353	--	*1.3654*	0	Turbine: Simple Cycle, Natural Gas	
					NOx					4.859284343	--	*4.8593*	0		
					CO					5.914364773	--	*5.9144*	0		
					NH3					7.181728653	--	*7.1818*	0		
					SO2					0.739448981	--	*0.7395*	0		
					H2SO4					0.113166841	--	*0.1132*	0		
					PM					3.252434927	--	*3.2525*	0		
					PM10					3.252434927	--	*3.2525*	0		
					PM2.5					3.252434927	--	*3.2525*	0		
					CO2 Equivalent					--	--	0	0		
New/Modified	Yes	CT-15A	CT-15A	Siemens SGT-800 Turbine 15 (MSS)	VOC					11.05854075	--	*11.0586*	0	Turbine: Simple Cycle, Natural Gas	
					NOx					17.41557061	--	*17.4156*	0		
					CO					114.5486189	--	*114.5487*	0		
					NH3					7.181728653	--	*7.1818*	0		
					SO2					0.739448981	--	*0.7395*	0		
					H2SO4					0.113166841	--	*0.1132*	0		
					PM					3.252434927	--	*3.2525*	0		
					PM10					3.252434927	--	*3.2525*	0		
					PM2.5					3.252434927	--	*3.2525*	0		
					CO2 Equivalent					--	--	0	0		
New/Modified	Yes	CT-15A	CT-15A	Siemens SGT-800 Turbine 15 (Annual)	VOC					--	6.489935288	0	*6.49*	Turbine: Simple Cycle, Natural Gas	
					NOx					--	21.99346542	0	*21.9935*		
					CO					--	31.18291771	0	*31.183*		
					NH3					--	15.72798575	0	*15.728*		
					SO2					--	3.238786535	0	*3.2388*		
					H2SO4					--	0.495670763	0	*0.4957*		
					PM					--	14.24566498	0	*14.2457*		
					PM10					--	14.24566498	0	*14.2457*		
					PM2.5					--	14.24566498	0	*14.2457*		
					CO2					--	270087.19	0	*270087.19*		
					CH4					--	5.090222201	0	*5.0903*		
					N2O					--	0.50902222	0	*0.5091*		
					CO2 Equivalent					--	270364.6071	0	*270364.6071*		
New/Modified	Yes	CT-16A	CT-16A	Siemens SGT-800 Turbine 16 (Normal Operations)	VOC					1.365373353	--	*1.3654*	0	Turbine: Simple Cycle, Natural Gas	
					NOx					4.859284343	--	*4.8593*	0		
					CO					5.914364773	--	*5.9144*	0		
					NH3					7.181728653	--	*7.1818*	0		
					SO2					0.739448981	--	*0.7395*	0		
					H2SO4					0.113166841	--	*0.1132*	0		
					PM					3.252434927	--	*3.2525*	0		
					PM10					3.252434927	--	*3.2525*	0		
					PM2.5					3.252434927	--	*3.2525*	0		
					CO2 Equivalent					--	--	0	0		
New/Modified	Yes	CT-16A	CT-16A	Siemens SGT-800 Turbine 16 (MSS)	VOC					11.05854075	--	*11.0586*	0	Turbine: Simple Cycle, Natural Gas	
					NOx					17.41557061	--	*17.4156*	0		
					CO					114.5486189	--	*114.5487*	0		
					NH3					7.181728653	--	*7.1818*	0		
					SO2					0.739448981	--	*0.7395*	0		
					H2SO4					0.113166841	--	*0.1132*	0		
					PM					3.252434927	--	*3.2525*	0		
					PM10					3.252434927	--	*3.2525*	0		
					PM2.5					3.252434927	--	*3.2525*	0		
					CO2 Equivalent					--	--	0	0		
New/Modified	Yes	CT-16A	CT-16A	Siemens SGT-800 Turbine 16 (Annual)	VOC					--	6.489935288	0	*6.49*	Turbine: Simple Cycle, Natural Gas	
					NOx					--	21.99346542	0	*21.9935*		
					CO					--	31.18291771	0	*31.183*		
					NH3					--	15.72798575	0	*15.728*		
					SO2					--	3.238786535	0	*3.2388*		
					H2SO4					--	0.495670763	0	*0.4957*		
					PM					--	14.24566498	0	*14.2457*		
					PM10					--	14.24566498	0	*14.2457*		
					PM2.5					--	14.24566498	0	*14.2457*		
					CO2					--	270087.19	0	*270087.19*		
					CH4					--	5.090222201	0	*5.0903*		
					N2O					--	0.50902222	0	*0.5091*		
					CO2 Equivalent					--	270364.6071	0	*270364.6071*		
New/Modified	Yes	CT-17A	CT-17A	Siemens SGT-800 Turbine 17 (Normal Operations)	VOC					1.365373353	--	*1.3654*	0	Turbine: Simple Cycle, Natural Gas	

Action Requested (only 1 action per FIN)	Include these emissions in annual (tpy) summary?	Facility ID Number (FIN)	Emission Point Number (EPN)	Source Name	Pollutant	Current Short-Term (lb/hr)	Current Long-Term (tpy)	Consolidated Current Short-Term (lb/hr)	Consolidated Current Long-Term (tpy)	Proposed Short-Term (lb/hr)	Proposed Long-Term (tpy)	Short-Term Difference (lb/hr)	Long-Term Difference (tpy)	Unit Type (Used for reviewing BACT and Monitoring Requirements)	Unit Type Notes (only if "other" unit type in Column O)
					NOx					4.859284343	--	*4.8593*	0		
					CO					5.914364773	--	*5.9144*	0		
					NH3					7.181728653	--	*7.1818*	0		
					SO2					0.739448981	--	*0.7395*	0		
					H2SO4					0.113166841	--	*0.1132*	0		
					PM					3.252434927	--	*3.2525*	0		
					PM10					3.252434927	--	*3.2525*	0		
					PM2.5					3.252434927	--	*3.2525*	0		
					CO2 Equivalent					--	--	0	0		
New/Modified	Yes	CT-17A	CT-17A	Siemens SGT-800 Turbine 17 (MSS)	VOC					11.05854075	--	*11.0586*	0	Turbine: Simple Cycle, Natural Gas	
					NOx					17.41557061	--	*17.4156*	0		
					CO					114.5486189	--	*114.5487*	0		
					NH3					7.181728653	--	*7.1818*	0		
					SO2					0.739448981	--	*0.7395*	0		
					H2SO4					0.113166841	--	*0.1132*	0		
					PM					3.252434927	--	*3.2525*	0		
					PM10					3.252434927	--	*3.2525*	0		
					PM2.5					3.252434927	--	*3.2525*	0		
					CO2 Equivalent					--	--	0	0		
New/Modified	Yes	CT-17A	CT-17A	Siemens SGT-800 Turbine 17 (Annual)	VOC					--	6.489935288	0	*6.49*	Turbine: Simple Cycle, Natural Gas	
					NOx					--	21.99346542	0	*21.9935*		
					CO					--	31.18291771	0	*31.183*		
					NH3					--	15.72798575	0	*15.728*		
					SO2					--	3.238786535	0	*3.2388*		
					H2SO4					--	0.495670763	0	*0.4957*		
					PM					--	14.24566498	0	*14.2457*		
					PM10					--	14.24566498	0	*14.2457*		
					PM2.5					--	14.24566498	0	*14.2457*		
					CO2					--	270087.19	0	*270087.19*		
					CH4					--	5.090222201	0	*5.0903*		
					N2O					--	0.50902222	0	*0.5091*		
					CO2 Equivalent					--	270364.6071	0	*270364.6071*		
New/Modified	Yes	CT-18A	CT-18A	Siemens SGT-800 Turbine 18 (Normal Operations)	VOC					1.365373353	--	*1.3654*	0	Turbine: Simple Cycle, Natural Gas	
					NOx					4.859284343	--	*4.8593*	0		
					CO					5.914364773	--	*5.9144*	0		
					NH3					7.181728653	--	*7.1818*	0		
					SO2					0.739448981	--	*0.7395*	0		
					H2SO4					0.113166841	--	*0.1132*	0		
					PM					3.252434927	--	*3.2525*	0		
					PM10					3.252434927	--	*3.2525*	0		
					PM2.5					3.252434927	--	*3.2525*	0		
					CO2 Equivalent					--	--	0	0		
New/Modified	Yes	CT-18A	CT-18A	Siemens SGT-800 Turbine 18 (MSS)	VOC					11.05854075	--	*11.0586*	0	Turbine: Simple Cycle, Natural Gas	
					NOx					17.41557061	--	*17.4156*	0		
					CO					114.5486189	--	*114.5487*	0		
					NH3					7.181728653	--	*7.1818*	0		
					SO2					0.739448981	--	*0.7395*	0		
					H2SO4					0.113166841	--	*0.1132*	0		
					PM					3.252434927	--	*3.2525*	0		
					PM10					3.252434927	--	*3.2525*	0		
					PM2.5					3.252434927	--	*3.2525*	0		
					CO2 Equivalent					--	--	0	0		
New/Modified	Yes	CT-18A	CT-18A	Siemens SGT-800 Turbine 18 (Annual)	VOC					--	6.489935288	0	*6.49*	Turbine: Simple Cycle, Natural Gas	
					NOx					--	21.99346542	0	*21.9935*		
					CO					--	31.18291771	0	*31.183*		
					NH3					--	15.72798575	0	*15.728*		
					SO2					--	3.238786535	0	*3.2388*		
					H2SO4					--	0.495670763	0	*0.4957*		
					PM					--	14.24566498	0	*14.2457*		
					PM10					--	14.24566498	0	*14.2457*		
					PM2.5					--	14.24566498	0	*14.2457*		
					CO2					--	270087.19	0	*270087.19*		
					CH4					--	5.090222201	0	*5.0903*		
					N2O					--	0.50902222	0	*0.5091*		
					CO2 Equivalent					--	270364.6071	0	*270364.6071*		
New/Modified	Yes	CT-19A	CT-19A	Siemens SGT-800 Turbine 19 (Normal Operations)	VOC					1.365373353	--	*1.3654*	0	Turbine: Simple Cycle, Natural Gas	
					NOx					4.859284343	--	*4.8593*	0		
					CO					5.914364773	--	*5.9144*	0		
					NH3					7.181728653	--	*7.1818*	0		
					SO2					0.739448981	--	*0.7395*	0		
					H2SO4					0.113166841	--	*0.1132*	0		
					PM					3.252434927	--	*3.2525*	0		
					PM10					3.252434927	--	*3.2525*	0		
					PM2.5					3.252434927	--	*3.2525*	0		
					CO2 Equivalent					--	--	0	0		
New/Modified	Yes	CT-19A	CT-19A	Siemens SGT-800 Turbine 19 (MSS)	VOC					11.05854075	--	*11.0586*	0	Turbine: Simple Cycle, Natural Gas	

Action Requested (only 1 action per FIN)	Include these emissions in annual (tpy) summary?	Facility ID Number (FIN)	Emission Point Number (EPN)	Source Name	Pollutant	Current Short-Term (lb/hr)	Current Long-Term (tpy)	Consolidated Current Short-Term (lb/hr)	Consolidated Current Long-Term (tpy)	Proposed Short-Term (lb/hr)	Proposed Long-Term (tpy)	Short-Term Difference (lb/hr)	Long-Term Difference (tpy)	Unit Type (Used for reviewing BACT and Monitoring Requirements)	Unit Type Notes (only if "other" unit type in Column O)
					NOx					17.41557061	--	*17.4156*	0		
					CO					114.5486189	--	*114.5487*	0		
					NH3					7.181728653	--	*7.1818*	0		
					SO2					0.739448981	--	*0.7395*	0		
					H2SO4					0.113166841	--	*0.1132*	0		
					PM					3.252434927	--	*3.2525*	0		
					PM10					3.252434927	--	*3.2525*	0		
					PM2.5					3.252434927	--	*3.2525*	0		
					CO2 Equivalent					--	--	0	0		
New/Modified	Yes	CT-19A	CT-19A	Siemens SGT-800 Turbine 19 (Annual)	VOC					--	6.489935288	0	*6.49*	Turbine: Simple Cycle, Natural Gas	
					NOx					--	21.99346542	0	*21.9935*		
					CO					--	31.18291771	0	*31.183*		
					NH3					--	15.72798575	0	*15.728*		
					SO2					--	3.238786535	0	*3.2388*		
					H2SO4					--	0.495670763	0	*0.4957*		
					PM					--	14.24566498	0	*14.2457*		
					PM10					--	14.24566498	0	*14.2457*		
					PM2.5					--	14.24566498	0	*14.2457*		
					CO2					--	270087.19	0	*270087.19*		
					CH4					--	5.090222201	0	*5.0903*		
					N2O					--	0.50902222	0	*0.5091*		
					CO2 Equivalent					--	270364.6071	0	*270364.6071*		
New/Modified	Yes	CT-20A	CT-20A	Siemens SGT-800 Turbine 20 (Normal Operations)	VOC					1.365373353	--	*1.3654*	0	Turbine: Simple Cycle, Natural Gas	
					NOx					4.859284343	--	*4.8593*	0		
					CO					5.914364773	--	*5.9144*	0		
					NH3					7.181728653	--	*7.1818*	0		
					SO2					0.739448981	--	*0.7395*	0		
					H2SO4					0.113166841	--	*0.1132*	0		
					PM					3.252434927	--	*3.2525*	0		
					PM10					3.252434927	--	*3.2525*	0		
					PM2.5					3.252434927	--	*3.2525*	0		
					CO2 Equivalent					--	--	0	0		
New/Modified	Yes	CT-20A	CT-20A	Siemens SGT-800 Turbine 20 (MSS)	VOC					11.05854075	--	*11.0586*	0	Turbine: Simple Cycle, Natural Gas	
					NOx					17.41557061	--	*17.4156*	0		
					CO					114.5486189	--	*114.5487*	0		
					NH3					7.181728653	--	*7.1818*	0		
					SO2					0.739448981	--	*0.7395*	0		
					H2SO4					0.113166841	--	*0.1132*	0		
					PM					3.252434927	--	*3.2525*	0		
					PM10					3.252434927	--	*3.2525*	0		
					PM2.5					3.252434927	--	*3.2525*	0		
					CO2 Equivalent					--	--	0	0		
New/Modified	Yes	CT-20A	CT-20A	Siemens SGT-800 Turbine 20 (Annual)	VOC					--	6.489935288	0	*6.49*	Turbine: Simple Cycle, Natural Gas	
					NOx					--	21.99346542	0	*21.9935*		
					CO					--	31.18291771	0	*31.183*		
					NH3					--	15.72798575	0	*15.728*		
					SO2					--	3.238786535	0	*3.2388*		
					H2SO4					--	0.495670763	0	*0.4957*		
					PM					--	14.24566498	0	*14.2457*		
					PM10					--	14.24566498	0	*14.2457*		
					PM2.5					--	14.24566498	0	*14.2457*		
					CO2					--	270087.19	0	*270087.19*		
					CH4					--	5.090222201	0	*5.0903*		
					N2O					--	0.50902222	0	*0.5091*		
					CO2 Equivalent					--	270364.6071	0	*270364.6071*		
New/Modified	Yes	CT-21A	CT-21A	Siemens SGT-800 Turbine 21 (Normal Operations)	VOC					1.365373353	--	*1.3654*	0	Turbine: Simple Cycle, Natural Gas	
					NOx					4.859284343	--	*4.8593*	0		
					CO					5.914364773	--	*5.9144*	0		
					NH3					7.181728653	--	*7.1818*	0		
					SO2					0.739448981	--	*0.7395*	0		
					H2SO4					0.113166841	--	*0.1132*	0		
					PM					3.252434927	--	*3.2525*	0		
					PM10					3.252434927	--	*3.2525*	0		
					PM2.5					3.252434927	--	*3.2525*	0		
					CO2 Equivalent					--	--	0	0		
New/Modified	Yes	CT-21A	CT-21A	Siemens SGT-800 Turbine 21 (MSS)	VOC					11.05854075	--	*11.0586*	0	Turbine: Simple Cycle, Natural Gas	
					NOx					17.41557061	--	*17.4156*	0		
					CO					114.5486189	--	*114.5487*	0		
					NH3					7.181728653	--	*7.1818*	0		
					SO2					0.739448981	--	*0.7395*	0		
					H2SO4					0.113166841	--	*0.1132*	0		
					PM					3.252434927	--	*3.2525*	0		
					PM10					3.252434927	--	*3.2525*	0		
					PM2.5					3.252434927	--	*3.2525*	0		
					CO2 Equivalent					--	--	0	0		
New/Modified	Yes	CT-21A	CT-21A	Siemens SGT-800 Turbine 21 (Annual)	VOC					--	6.489935288	0	*6.49*	Turbine: Simple Cycle, Natural Gas	

Action Requested (only 1 action per FIN)	Include these emissions in annual (tpy) summary?	Facility ID Number (FIN)	Emission Point Number (EPN)	Source Name	Pollutant	Current Short-Term (lb/hr)	Current Long-Term (tpy)	Consolidated Current Short-Term (lb/hr)	Consolidated Current Long-Term (tpy)	Proposed Short-Term (lb/hr)	Proposed Long-Term (tpy)	Short-Term Difference (lb/hr)	Long-Term Difference (tpy)	Unit Type (Used for reviewing BACT and Monitoring Requirements)	Unit Type Notes (only if "other" unit type in Column O)
					NOx					--	21.99346542	0	*21.9935*		
					CO					--	31.18291771	0	*31.183*		
					NH3					--	15.72798575	0	*15.728*		
					SO2					--	3.238786535	0	*3.2388*		
					H2SO4					--	0.495670763	0	*0.4957*		
					PM					--	14.24566498	0	*14.2457*		
					PM10					--	14.24566498	0	*14.2457*		
					PM2.5					--	14.24566498	0	*14.2457*		
					CO2					--	270087.19	0	*270087.19*		
					CH4					--	5.090222201	0	*5.0903*		
					N2O					--	0.50902222	0	*0.5091*		
					CO2 Equivalent					--	270364.6071	0	*270364.6071*		
New/Modified	Yes	CT-1B	CT-1B	Large-Frame Combustion Turbine 1 (Normal Operations)	VOC					9.788827264	--	*9.7889*	0	Turbine: Simple Cycle, Natural Gas	
					NOx					35.1862455	--	*35.1863*	0		
					CO					77.08701471	--	*77.0871*	0		
					NH3					52.00314484	--	*52.0032*	0		
					SO2					5.354375569	--	*5.3544*	0		
					H2SO4					0.819444997	--	*0.8195*	0		
					PM					11.10378656	--	*11.1038*	0		
					PM10					11.10378656	--	*11.1038*	0		
					PM2.5					11.10378656	--	*11.1038*	0		
					CO2 Equivalent					--	--	0	0		
New/Modified	Yes	CT-1B	CT-1B	Large-Frame Combustion Turbine 1 (MSS)	VOC					77.05756075	0	*77.0576*	0	Turbine: Simple Cycle, Natural Gas	
					NOx					193.1795602	0	*193.1796*	0		
					CO					624.8282909	0	*624.8283*	0		
					NH3					52.00314484	0	*52.0032*	0		
					SO2					5.354375569	0	*5.3544*	0		
					H2SO4					0.819444997	0	*0.8195*	0		
					PM					11.10378656	0	*11.1038*	0		
					PM10					11.10378656	0	*11.1038*	0		
					PM2.5					11.10378656	0	*11.1038*	0		
					CO2 Equivalent					--	--	0	0		
New/Modified	Yes	CT-1B	CT-1B	Large-Frame Combustion Turbine 1 (Annual)	VOC					--	46.61906342	0	*46.6191*	Turbine: Simple Cycle, Natural Gas	
					NOx					--	163.2157553	0	*163.2158*		
					CO					--	368.0611244	0	*368.0612*		
					NH3					--	113.8868872	0	*113.8869*		
					SO2					--	23.45216499	0	*23.4522*		
					H2SO4					--	3.589169088	0	*3.5892*		
					PM					--	48.63458515	0	*48.6346*		
					PM10					--	48.63458515	0	*48.6346*		
					PM2.5					--	48.63458515	0	*48.6346*		
					CO2					--	1955710.657	0	*1955710.657*		
					CH4					--	36.85847449	0	*36.8585*		
					N2O					--	3.685847449	0	*3.6859*		
					CO2 Equivalent					--	1957719.443	0	*1957719.444*		
New/Modified	Yes	CT-2B	CT-2B	Large-Frame Combustion Turbine 2 (Normal Operations)	VOC					9.788827264	--	*9.7889*	0	Turbine: Simple Cycle, Natural Gas	
					NOx					35.1862455	--	*35.1863*	0		
					CO					77.08701471	--	*77.0871*	0		
					NH3					52.00314484	--	*52.0032*	0		
					SO2					5.354375569	--	*5.3544*	0		
					H2SO4					0.819444997	--	*0.8195*	0		
					PM					11.10378656	--	*11.1038*	0		
					PM10					11.10378656	--	*11.1038*	0		
					PM2.5					11.10378656	--	*11.1038*	0		
					CO2 Equivalent					--	--	0	0		
New/Modified	Yes	CT-2B	CT-2B	Large-Frame Combustion Turbine 2 (MSS)	VOC					77.05756075	0	*77.0576*	0	Turbine: Simple Cycle, Natural Gas	
					NOx					193.1795602	0	*193.1796*	0		
					CO					624.8282909	0	*624.8283*	0		
					NH3					52.00314484	0	*52.0032*	0		
					SO2					5.354375569	0	*5.3544*	0		
					H2SO4					0.819444997	0	*0.8195*	0		
					PM					11.10378656	0	*11.1038*	0		
					PM10					11.10378656	0	*11.1038*	0		
					PM2.5					11.10378656	0	*11.1038*	0		
					CO2 Equivalent					--	--	0	0		
New/Modified	Yes	CT-2B	CT-2B	Large-Frame Combustion Turbine 2 (Annual)	VOC					--	46.61906342	0	*46.6191*	Turbine: Simple Cycle, Natural Gas	
					NOx					--	163.2157553	0	*163.2158*		
					CO					--	368.0611244	0	*368.0612*		
					NH3					--	113.8868872	0	*113.8869*		
					SO2					--	23.45216499	0	*23.4522*		
					H2SO4					--	3.589169088	0	*3.5892*		
					PM					--	48.63458515	0	*48.6346*		
					PM10					--	48.63458515	0	*48.6346*		

Action Requested (only 1 action per FIN)	Include these emissions in annual (tpy) summary?	Facility ID Number (FIN)	Emission Point Number (EPN)	Source Name	Pollutant	Current Short-Term (lb/hr)	Current Long-Term (tpy)	Consolidated Current Short-Term (lb/hr)	Consolidated Current Long-Term (tpy)	Proposed Short-Term (lb/hr)	Proposed Long-Term (tpy)	Short-Term Difference (lb/hr)	Long-Term Difference (tpy)	Unit Type (Used for reviewing BACT and Monitoring Requirements)	Unit Type Notes (only if "other" unit type in Column O)
					PM2.5					--	48.63458515	0	*48.6346*		
					CO2					--	1955710.657	0	*1955710.657*		
					CH4					--	36.85847449	0	*36.8585*		
					N2O					--	3.685847449	0	*3.6859*		
					CO2 Equivalent					--	1957719.443	0	*1957719.444*		
New/Modified	Yes	CT-3B	CT-3B	Large-Frame Combustion Turbine 3 (Normal Operations)	VOC					9.788827264	--	*9.7889*	0	Turbine: Simple Cycle, Natural Gas	
					NOx					35.1862455	--	*35.1863*	0		
					CO					77.08701471	--	*77.0871*	0		
					NH3					52.00314484	--	*52.0032*	0		
					SO2					5.354375569	--	*5.3544*	0		
					H2SO4					0.819444997	--	*0.8195*	0		
					PM					11.10378656	--	*11.1038*	0		
					PM10					11.10378656	--	*11.1038*	0		
					PM2.5					11.10378656	--	*11.1038*	0		
					CO2 Equivalent					--	--	0	0		
New/Modified	Yes	CT-3B	CT-3B	Large-Frame Combustion Turbine 3 (MSS)	VOC					77.05756075	0	*77.0576*	0	Turbine: Simple Cycle, Natural Gas	
					NOx					193.1795602	0	*193.1796*	0		
					CO					624.8282909	0	*624.8283*	0		
					NH3					52.00314484	0	*52.0032*	0		
					SO2					5.354375569	0	*5.3544*	0		
					H2SO4					0.819444997	0	*0.8195*	0		
					PM					11.10378656	0	*11.1038*	0		
					PM10					11.10378656	0	*11.1038*	0		
					PM2.5					11.10378656	0	*11.1038*	0		
					CO2 Equivalent					--	--	0	0		
New/Modified	Yes	CT-3B	CT-3B	Large-Frame Combustion Turbine 3 (Annual)	VOC					--	46.61906342	0	*46.6191*	Turbine: Simple Cycle, Natural Gas	
					NOx					--	163.2157553	0	*163.2158*		
					CO					--	368.0611244	0	*368.0612*		
					NH3					--	113.8868872	0	*113.8869*		
					SO2					--	23.45216499	0	*23.4522*		
					H2SO4					--	3.589169088	0	*3.5892*		
					PM					--	48.63458515	0	*48.6346*		
					PM10					--	48.63458515	0	*48.6346*		
					PM2.5					--	48.63458515	0	*48.6346*		
					CO2					--	1955710.657	0	*1955710.657*		
					CH4					--	36.85847449	0	*36.8585*		
					N2O					--	3.685847449	0	*3.6859*		
					CO2 Equivalent					--	1957719.443	0	*1957719.444*		
New/Modified	Yes	CT-4B	CT-4B	Large-Frame Combustion Turbine 4 (Normal Operations)	VOC					9.788827264	--	*9.7889*	0	Turbine: Simple Cycle, Natural Gas	
					NOx					35.1862455	--	*35.1863*	0		
					CO					77.08701471	--	*77.0871*	0		
					NH3					52.00314484	--	*52.0032*	0		
					SO2					5.354375569	--	*5.3544*	0		
					H2SO4					0.819444997	--	*0.8195*	0		
					PM					11.10378656	--	*11.1038*	0		
					PM10					11.10378656	--	*11.1038*	0		
					PM2.5					11.10378656	--	*11.1038*	0		
					CO2 Equivalent					--	--	0	0		
New/Modified	Yes	CT-4B	CT-4B	Large-Frame Combustion Turbine 4 (MSS)	VOC					77.05756075	0	*77.0576*	0	Turbine: Simple Cycle, Natural Gas	
					NOx					193.1795602	0	*193.1796*	0		
					CO					624.8282909	0	*624.8283*	0		
					NH3					52.00314484	0	*52.0032*	0		
					SO2					5.354375569	0	*5.3544*	0		
					H2SO4					0.819444997	0	*0.8195*	0		
					PM					11.10378656	0	*11.1038*	0		
					PM10					11.10378656	0	*11.1038*	0		
					PM2.5					11.10378656	0	*11.1038*	0		
					CO2 Equivalent					--	--	0	0		
New/Modified	Yes	CT-4B	CT-4B	Large-Frame Combustion Turbine 4 (Annual)	VOC					--	46.61906342	0	*46.6191*	Turbine: Simple Cycle, Natural Gas	
					NOx					--	163.2157553	0	*163.2158*		
					CO					--	368.0611244	0	*368.0612*		
					NH3					--	113.8868872	0	*113.8869*		
					SO2					--	23.45216499	0	*23.4522*		
					H2SO4					--	3.589169088	0	*3.5892*		
					PM					--	48.63458515	0	*48.6346*		
					PM10					--	48.63458515	0	*48.6346*		
					PM2.5					--	48.63458515	0	*48.6346*		
					CO2					--	1955710.657	0	*1955710.657*		
					CH4					--	36.85847449	0	*36.8585*		
					N2O					--	3.685847449	0	*3.6859*		
					CO2 Equivalent					--	1957719.443	0	*1957719.444*		

Action Requested (only 1 action per FIN)	Include these emissions in annual (tpy) summary?	Facility ID Number (FIN)	Emission Point Number (EPN)	Source Name	Pollutant	Current Short-Term (lb/hr)	Current Long-Term (tpy)	Consolidated Current Short-Term (lb/hr)	Consolidated Current Long-Term (tpy)	Proposed Short-Term (lb/hr)	Proposed Long-Term (tpy)	Short-Term Difference (lb/hr)	Long-Term Difference (tpy)	Unit Type (Used for reviewing BACT and Monitoring Requirements)	Unit Type Notes (only if "other" unit type in Column O)
New/Modified	Yes	CT-5B	CT-5B	Large-Frame Combustion Turbine 5 (Normal Operations)	VOC					9.788827264	--	*9.7889*	0	Turbine: Simple Cycle, Natural Gas	
					NOx					35.1862455	--	*35.1863*	0		
					CO					77.08701471	--	*77.0871*	0		
					NH3					52.00314484	--	*52.0032*	0		
					SO2					5.354375569	--	*5.3544*	0		
					H2SO4					0.819444997	--	*0.8195*	0		
					PM					11.10378656	--	*11.1038*	0		
					PM10					11.10378656	--	*11.1038*	0		
					PM2.5					11.10378656	--	*11.1038*	0		
					CO2 Equivalent					--	--	0	0		
New/Modified	Yes	CT-5B	CT-5B	Large-Frame Combustion Turbine 5 (MSS)	VOC					77.05756075	0	*77.0576*	0	Turbine: Simple Cycle, Natural Gas	
					NOx					193.1795602	0	*193.1796*	0		
					CO					624.8282909	0	*624.8283*	0		
					NH3					52.00314484	0	*52.0032*	0		
					SO2					5.354375569	0	*5.3544*	0		
					H2SO4					0.819444997	0	*0.8195*	0		
					PM					11.10378656	0	*11.1038*	0		
					PM10					11.10378656	0	*11.1038*	0		
					PM2.5					11.10378656	0	*11.1038*	0		
					CO2 Equivalent					--	--	0	0		
New/Modified	Yes	CT-5B	CT-5B	Large-Frame Combustion Turbine 5 (Annual)	VOC					--	46.61906342	0	*46.6191*	Turbine: Simple Cycle, Natural Gas	
					NOx					--	163.2157553	0	*163.2158*		
					CO					--	368.0611244	0	*368.0612*		
					NH3					--	113.8868872	0	*113.8869*		
					SO2					--	23.45216499	0	*23.4522*		
					H2SO4					--	3.589169088	0	*3.5892*		
					PM					--	48.63458515	0	*48.6346*		
					PM10					--	48.63458515	0	*48.6346*		
					PM2.5					--	48.63458515	0	*48.6346*		
					CO2					--	1955710.657	0	*1955710.657*		
					CH4					--	36.85847449	0	*36.8585*		
					N2O					--	3.685847449	0	*3.6859*		
					CO2 Equivalent					--	1957719.443	0	*1957719.444*		
New/Modified	Yes	CT-6B	CT-6B	Large-Frame Combustion Turbine 6 (Normal Operations)	VOC					9.788827264	--	*9.7889*	0	Turbine: Simple Cycle, Natural Gas	
					NOx					35.1862455	--	*35.1863*	0		
					CO					77.08701471	--	*77.0871*	0		
					NH3					52.00314484	--	*52.0032*	0		
					SO2					5.354375569	--	*5.3544*	0		
					H2SO4					0.819444997	--	*0.8195*	0		
					PM					11.10378656	--	*11.1038*	0		
					PM10					11.10378656	--	*11.1038*	0		
					PM2.5					11.10378656	--	*11.1038*	0		
					CO2 Equivalent					--	--	0	0		
New/Modified	Yes	CT-6B	CT-6B	Large-Frame Combustion Turbine 6 (MSS)	VOC					77.05756075	0	*77.0576*	0	Turbine: Simple Cycle, Natural Gas	
					NOx					193.1795602	0	*193.1796*	0		
					CO					624.8282909	0	*624.8283*	0		
					NH3					52.00314484	0	*52.0032*	0		
					SO2					5.354375569	0	*5.3544*	0		
					H2SO4					0.819444997	0	*0.8195*	0		
					PM					11.10378656	0	*11.1038*	0		
					PM10					11.10378656	0	*11.1038*	0		
					PM2.5					11.10378656	0	*11.1038*	0		
					CO2 Equivalent					--	--	0	0		
New/Modified	Yes	CT-6B	CT-6B	Large-Frame Combustion Turbine 6 (Annual)	VOC					--	46.61906342	0	*46.6191*	Turbine: Simple Cycle, Natural Gas	
					NOx					--	163.2157553	0	*163.2158*		
					CO					--	368.0611244	0	*368.0612*		
					NH3					--	113.8868872	0	*113.8869*		
					SO2					--	23.45216499	0	*23.4522*		
					H2SO4					--	3.589169088	0	*3.5892*		
					PM					--	48.63458515	0	*48.6346*		
					PM10					--	48.63458515	0	*48.6346*		
					PM2.5					--	48.63458515	0	*48.6346*		
					CO2					--	1955710.657	0	*1955710.657*		
					CH4					--	36.85847449	0	*36.8585*		
					N2O					--	3.685847449	0	*3.6859*		
					CO2 Equivalent					--	1957719.443	0	*1957719.444*		
New/Modified	Yes	CT-7B	CT-7B	Large-Frame Combustion Turbine 7 (Normal Operations)	VOC					9.788827264	--	*9.7889*	0	Turbine: Simple Cycle, Natural Gas	
					NOx					35.1862455	--	*35.1863*	0		
					CO					77.08701471	--	*77.0871*	0		
					NH3					52.00314484	--	*52.0032*	0		
					SO2					5.354375569	--	*5.3544*	0		

Action Requested (only 1 action per FIN)	Include these emissions in annual (tpy) summary?	Facility ID Number (FIN)	Emission Point Number (EPN)	Source Name	Pollutant	Current Short-Term (lb/hr)	Current Long-Term (tpy)	Consolidated Current Short-Term (lb/hr)	Consolidated Current Long-Term (tpy)	Proposed Short-Term (lb/hr)	Proposed Long-Term (tpy)	Short-Term Difference (lb/hr)	Long-Term Difference (tpy)	Unit Type (Used for reviewing BACT and Monitoring Requirements)	Unit Type Notes (only if "other" unit type in Column O)
					H2SO4					0.819444997	--	*0.8195*	0		
					PM					11.10378656	--	*11.1038*	0		
					PM10					11.10378656	--	*11.1038*	0		
					PM2.5					11.10378656	--	*11.1038*	0		
					CO2 Equivalent					--	--	0	0		
New/Modified	Yes	CT-7B	CT-7B	Large-Frame Combustion Turbine 7 (MSS)	VOC					77.05756075	0	*77.0576*	0	Turbine: Simple Cycle, Natural Gas	
					NOx					193.1795602	0	*193.1796*	0		
					CO					624.8282909	0	*624.8283*	0		
					NH3					52.00314484	0	*52.0032*	0		
					SO2					5.354375569	0	*5.3544*	0		
					H2SO4					0.819444997	0	*0.8195*	0		
					PM					11.10378656	0	*11.1038*	0		
					PM10					11.10378656	0	*11.1038*	0		
					PM2.5					11.10378656	0	*11.1038*	0		
					CO2 Equivalent					--	--	0	0		
New/Modified	Yes	CT-7B	CT-7B	Large-Frame Combustion Turbine 7 (Annual)	VOC					--	46.61906342	0	*46.6191*	Turbine: Simple Cycle, Natural Gas	
					NOx					--	163.2157553	0	*163.2158*		
					CO					--	368.0611244	0	*368.0612*		
					NH3					--	113.8868872	0	*113.8869*		
					SO2					--	23.45216499	0	*23.4522*		
					H2SO4					--	3.589169088	0	*3.5892*		
					PM					--	48.63458515	0	*48.6346*		
					PM10					--	48.63458515	0	*48.6346*		
					PM2.5					--	48.63458515	0	*48.6346*		
					CO2					--	1955710.657	0	*1955710.657*		
					CH4					--	36.85847449	0	*36.8585*		
					N2O					--	3.685847449	0	*3.6859*		
					CO2 Equivalent					--	1957719.443	0	*1957719.444*		
New/Modified	Yes	CT-8B	CT-8B	Large-Frame Combustion Turbine 8 (Normal Operations)	VOC					9.788827264	--	*9.7889*	0	Turbine: Simple Cycle, Natural Gas	
					NOx					35.1862455	--	*35.1863*	0		
					CO					77.08701471	--	*77.0871*	0		
					NH3					52.00314484	--	*52.0032*	0		
					SO2					5.354375569	--	*5.3544*	0		
					H2SO4					0.819444997	--	*0.8195*	0		
					PM					11.10378656	--	*11.1038*	0		
					PM10					11.10378656	--	*11.1038*	0		
					PM2.5					11.10378656	--	*11.1038*	0		
					CO2 Equivalent					--	--	0	0		
New/Modified	Yes	CT-8B	CT-8B	Large-Frame Combustion Turbine 8 (MSS)	VOC					77.05756075	0	*77.0576*	0	Turbine: Simple Cycle, Natural Gas	
					NOx					193.1795602	0	*193.1796*	0		
					CO					624.8282909	0	*624.8283*	0		
					NH3					52.00314484	0	*52.0032*	0		
					SO2					5.354375569	0	*5.3544*	0		
					H2SO4					0.819444997	0	*0.8195*	0		
					PM					11.10378656	0	*11.1038*	0		
					PM10					11.10378656	0	*11.1038*	0		
					PM2.5					11.10378656	0	*11.1038*	0		
					CO2 Equivalent					--	--	0	0		
New/Modified	Yes	CT-8B	CT-8B	Large-Frame Combustion Turbine 8 (Annual)	VOC					--	46.61906342	0	*46.6191*	Turbine: Simple Cycle, Natural Gas	
					NOx					--	163.2157553	0	*163.2158*		
					CO					--	368.0611244	0	*368.0612*		
					NH3					--	113.8868872	0	*113.8869*		
					SO2					--	23.45216499	0	*23.4522*		
					H2SO4					--	3.589169088	0	*3.5892*		
					PM					--	48.63458515	0	*48.6346*		
					PM10					--	48.63458515	0	*48.6346*		
					PM2.5					--	48.63458515	0	*48.6346*		
					CO2					--	1955710.657	0	*1955710.657*		
					CH4					--	36.85847449	0	*36.8585*		
					N2O					--	3.685847449	0	*3.6859*		
					CO2 Equivalent					--	1957719.443	0	*1957719.444*		
New/Modified	Yes	CT-9B	CT-9B	Large-Frame Combustion Turbine 9 (Normal Operations)	VOC					9.788827264	--	*9.7889*	0	Turbine: Simple Cycle, Natural Gas	
					NOx					35.1862455	--	*35.1863*	0		
					CO					77.08701471	--	*77.0871*	0		
					NH3					52.00314484	--	*52.0032*	0		
					SO2					5.354375569	--	*5.3544*	0		
					H2SO4					0.819444997	--	*0.8195*	0		
					PM					11.10378656	--	*11.1038*	0		
					PM10					11.10378656	--	*11.1038*	0		
					PM2.5					11.10378656	--	*11.1038*	0		
					CO2 Equivalent					--	--	0	0		

Action Requested (only 1 action per FIN)	Include these emissions in annual (tpy) summary?	Facility ID Number (FIN)	Emission Point Number (EPN)	Source Name	Pollutant	Current Short-Term (lb/hr)	Current Long-Term (tpy)	Consolidated Current Short-Term (lb/hr)	Consolidated Current Long-Term (tpy)	Proposed Short-Term (lb/hr)	Proposed Long-Term (tpy)	Short-Term Difference (lb/hr)	Long-Term Difference (tpy)	Unit Type (Used for reviewing BACT and Monitoring Requirements)	Unit Type Notes (only if "other" unit type in Column O)
New/Modified	Yes	CT-9B	CT-9B	Large-Frame Combustion Turbine 9 (MSS)	VOC					77.05756075	0	*77.0576*	0	Turbine: Simple Cycle, Natural Gas	
					NOx					193.1795602	0	*193.1796*	0		
					CO					624.8282909	0	*624.8283*	0		
					NH3					52.00314484	0	*52.0032*	0		
					SO2					5.354375569	0	*5.3544*	0		
					H2SO4					0.819444997	0	*0.8195*	0		
					PM					11.10378656	0	*11.1038*	0		
					PM10					11.10378656	0	*11.1038*	0		
					PM2.5					11.10378656	0	*11.1038*	0		
					CO2 Equivalent					--	--	0	0		
New/Modified	Yes	CT-9B	CT-9B	Large-Frame Combustion Turbine 9 (Annual)	VOC					--	46.61906342	0	*46.6191*	Turbine: Simple Cycle, Natural Gas	
					NOx					--	163.2157553	0	*163.2158*		
					CO					--	368.0611244	0	*368.0612*		
					NH3					--	113.8868872	0	*113.8869*		
					SO2					--	23.45216499	0	*23.4522*		
					H2SO4					--	3.589169088	0	*3.5892*		
					PM					--	48.63458515	0	*48.6346*		
					PM10					--	48.63458515	0	*48.6346*		
					PM2.5					--	48.63458515	0	*48.6346*		
					CO2					--	1955710.657	0	*1955710.657*		
					CH4					--	36.85847449	0	*36.8585*		
					N2O					--	3.685847449	0	*3.6859*		
					CO2 Equivalent					--	1957719.443	0	*1957719.444*		
New/Modified	Yes	CT-10B	CT-10B	Large-Frame Combustion Turbine 10 (Normal Operations)	VOC					9.788827264	--	*9.7889*	0	Turbine: Simple Cycle, Natural Gas	
					NOx					35.1862455	--	*35.1863*	0		
					CO					77.08701471	--	*77.0871*	0		
					NH3					52.00314484	--	*52.0032*	0		
					SO2					5.354375569	--	*5.3544*	0		
					H2SO4					0.819444997	--	*0.8195*	0		
					PM					11.10378656	--	*11.1038*	0		
					PM10					11.10378656	--	*11.1038*	0		
					PM2.5					11.10378656	--	*11.1038*	0		
					CO2 Equivalent					--	--	0	0		
New/Modified	Yes	CT-10B	CT-10B	Large-Frame Combustion Turbine 10 (MSS)	VOC					77.05756075	0	*77.0576*	0	Turbine: Simple Cycle, Natural Gas	
					NOx					193.1795602	0	*193.1796*	0		
					CO					624.8282909	0	*624.8283*	0		
					NH3					52.00314484	0	*52.0032*	0		
					SO2					5.354375569	0	*5.3544*	0		
					H2SO4					0.819444997	0	*0.8195*	0		
					PM					11.10378656	0	*11.1038*	0		
					PM10					11.10378656	0	*11.1038*	0		
					PM2.5					11.10378656	0	*11.1038*	0		
					CO2 Equivalent					--	--	0	0		
New/Modified	Yes	CT-10B	CT-10B	Large-Frame Combustion Turbine 10 (Annual)	VOC					--	46.61906342	0	*46.6191*	Turbine: Simple Cycle, Natural Gas	
					NOx					--	163.2157553	0	*163.2158*		
					CO					--	368.0611244	0	*368.0612*		
					NH3					--	113.8868872	0	*113.8869*		
					SO2					--	23.45216499	0	*23.4522*		
					H2SO4					--	3.589169088	0	*3.5892*		
					PM					--	48.63458515	0	*48.6346*		
					PM10					--	48.63458515	0	*48.6346*		
					PM2.5					--	48.63458515	0	*48.6346*		
					CO2					--	1955710.657	0	*1955710.657*		
					CH4					--	36.85847449	0	*36.8585*		
					N2O					--	3.685847449	0	*3.6859*		
					CO2 Equivalent					--	1957719.443	0	*1957719.444*		
New/Modified	Yes	CT-11B	CT-11B	Large-Frame Combustion Turbine 11 (Normal Operations)	VOC					9.788827264	--	*9.7889*	0	Turbine: Simple Cycle, Natural Gas	
					NOx					35.1862455	--	*35.1863*	0		
					CO					77.08701471	--	*77.0871*	0		
					NH3					52.00314484	--	*52.0032*	0		
					SO2					5.354375569	--	*5.3544*	0		
					H2SO4					0.819444997	--	*0.8195*	0		
					PM					11.10378656	--	*11.1038*	0		
					PM10					11.10378656	--	*11.1038*	0		
					PM2.5					11.10378656	--	*11.1038*	0		
					CO2 Equivalent					--	--	0	0		
New/Modified	Yes	CT-11B	CT-11B	Large-Frame Combustion Turbine 11 (MSS)	VOC					77.05756075	0	*77.0576*	0	Turbine: Simple Cycle, Natural Gas	
					NOx					193.1795602	0	*193.1796*	0		
					CO					624.8282909	0	*624.8283*	0		

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					NH3					52.00314484	0	*52.0032*	0		
					SO2					5.354375569	0	*5.3544*	0		
					H2SO4					0.819444997	0	*0.8195*	0		
					PM					11.10378656	0	*11.1038*	0		
					PM10					11.10378656	0	*11.1038*	0		
					PM2.5					11.10378656	0	*11.1038*	0		
					CO2 Equivalent					--	--	0	0		
New/Modified	Yes	CT-11B	CT-11B	Large-Frame Combustion Turbine 11 (Annual)	VOC					--	46.61906342	0	*46.6191*	Turbine: Simple Cycle, Natural Gas	
					NOx					--	163.2157553	0	*163.2158*		
					CO					--	368.0611244	0	*368.0612*		
					NH3					--	113.8868872	0	*113.8869*		
					SO2					--	23.45216499	0	*23.4522*		
					H2SO4					--	3.589169088	0	*3.5892*		
					PM					--	48.63458515	0	*48.6346*		
					PM10					--	48.63458515	0	*48.6346*		
					PM2.5					--	48.63458515	0	*48.6346*		
					CO2					--	1955710.657	0	*1955710.657*		
					CH4					--	36.85847449	0	*36.8585*		
					N2O					--	3.685847449	0	*3.6859*		
					CO2 Equivalent					--	1957719.443	0	*1957719.444*		
New/Modified	Yes	CT-12B	CT-12B	Large-Frame Combustion Turbine 12 (Normal Operations)	VOC					9.788827264	--	*9.7889*	0	Turbine: Simple Cycle, Natural Gas	
					NOx					35.1862455	--	*35.1863*	0		
					CO					77.08701471	--	*77.0871*	0		
					NH3					52.00314484	--	*52.0032*	0		
					SO2					5.354375569	--	*5.3544*	0		
					H2SO4					0.819444997	--	*0.8195*	0		
					PM					11.10378656	--	*11.1038*	0		
					PM10					11.10378656	--	*11.1038*	0		
					PM2.5					11.10378656	--	*11.1038*	0		
					CO2 Equivalent					--	--	0	0		
New/Modified	Yes	CT-12B	CT-12B	Large-Frame Combustion Turbine 12 (MSS)	VOC					77.05756075	0	*77.0576*	0	Turbine: Simple Cycle, Natural Gas	
					NOx					193.1795602	0	*193.1796*	0		
					CO					624.8282909	0	*624.8283*	0		
					NH3					52.00314484	0	*52.0032*	0		
					SO2					5.354375569	0	*5.3544*	0		
					H2SO4					0.819444997	0	*0.8195*	0		
					PM					11.10378656	0	*11.1038*	0		
					PM10					11.10378656	0	*11.1038*	0		
					PM2.5					11.10378656	0	*11.1038*	0		
					CO2 Equivalent					--	--	0	0		
New/Modified	Yes	CT-12B	CT-12B	Large-Frame Combustion Turbine 12 (Annual)	VOC					--	46.61906342	0	*46.6191*	Turbine: Simple Cycle, Natural Gas	
					NOx					--	163.2157553	0	*163.2158*		
					CO					--	368.0611244	0	*368.0612*		
					NH3					--	113.8868872	0	*113.8869*		
					SO2					--	23.45216499	0	*23.4522*		
					H2SO4					--	3.589169088	0	*3.5892*		
					PM					--	48.63458515	0	*48.6346*		
					PM10					--	48.63458515	0	*48.6346*		
					PM2.5					--	48.63458515	0	*48.6346*		
					CO2					--	1955710.657	0	*1955710.657*		
					CH4					--	36.85847449	0	*36.8585*		
					N2O					--	3.685847449	0	*3.6859*		
					CO2 Equivalent					--	1957719.443	0	*1957719.444*		
New/Modified	Yes	CT-13B	CT-13B	Large-Frame Combustion Turbine 13 (Normal Operations)	VOC					9.788827264	--	*9.7889*	0	Turbine: Simple Cycle, Natural Gas	
					NOx					35.1862455	--	*35.1863*	0		
					CO					77.08701471	--	*77.0871*	0		
					NH3					52.00314484	--	*52.0032*	0		
					SO2					5.354375569	--	*5.3544*	0		
					H2SO4					0.819444997	--	*0.8195*	0		
					PM					11.10378656	--	*11.1038*	0		
					PM10					11.10378656	--	*11.1038*	0		
					PM2.5					11.10378656	--	*11.1038*	0		
					CO2 Equivalent					--	--	0	0		
New/Modified	Yes	CT-13B	CT-13B	Large-Frame Combustion Turbine 13 (MSS)	VOC					77.05756075	0	*77.0576*	0	Turbine: Simple Cycle, Natural Gas	
					NOx					193.1795602	0	*193.1796*	0		
					CO					624.8282909	0	*624.8283*	0		
					NH3					52.00314484	0	*52.0032*	0		
					SO2					5.354375569	0	*5.3544*	0		
					H2SO4					0.819444997	0	*0.8195*	0		
					PM					11.10378656	0	*11.1038*	0		
					PM10					11.10378656	0	*11.1038*	0		

Action Requested (only 1 action per FIN)	Include these emissions in annual (tpy) summary?	Facility ID Number (FIN)	Emission Point Number (EPN)	Source Name	Pollutant	Current Short-Term (lb/hr)	Current Long-Term (tpy)	Consolidated Current Short-Term (lb/hr)	Consolidated Current Long-Term (tpy)	Proposed Short-Term (lb/hr)	Proposed Long-Term (tpy)	Short-Term Difference (lb/hr)	Long-Term Difference (tpy)	Unit Type (Used for reviewing BACT and Monitoring Requirements)	Unit Type Notes (only if "other" unit type in Column O)
					PM2.5					11.10378656	0	*11.1038*	0		
					CO2 Equivalent					--	--	0	0		
New/Modified	Yes	CT-13B	CT-13B	Large-Frame Combustion Turbine 13 (Annual)	VOC					--	46.61906342	0	*46.6191*	Turbine: Simple Cycle, Natural Gas	
					NOx					--	163.2157553	0	*163.2158*		
					CO					--	368.0611244	0	*368.0612*		
					NH3					--	113.8868872	0	*113.8869*		
					SO2					--	23.45216499	0	*23.4522*		
					H2SO4					--	3.589169088	0	*3.5892*		
					PM					--	48.63458515	0	*48.6346*		
					PM10					--	48.63458515	0	*48.6346*		
					PM2.5					--	48.63458515	0	*48.6346*		
					CO2					--	1955710.657	0	*1955710.657*		
					CH4					--	36.85847449	0	*36.8585*		
					N2O					--	3.685847449	0	*3.6859*		
					CO2 Equivalent					--	1957719.443	0	*1957719.444*		
New/Modified	Yes	CT-14B	CT-14B	Large-Frame Combustion Turbine 14 (Normal Operations)	VOC					9.788827264	--	*9.7889*	0	Turbine: Simple Cycle, Natural Gas	
					NOx					35.1862455	--	*35.1863*	0		
					CO					77.08701471	--	*77.0871*	0		
					NH3					52.00314484	--	*52.0032*	0		
					SO2					5.354375569	--	*5.3544*	0		
					H2SO4					0.819444997	--	*0.8195*	0		
					PM					11.10378656	--	*11.1038*	0		
					PM10					11.10378656	--	*11.1038*	0		
					PM2.5					11.10378656	--	*11.1038*	0		
					CO2 Equivalent					--	--	0	0		
New/Modified	Yes	CT-14B	CT-14B	Large-Frame Combustion Turbine 14 (MSS)	VOC					77.05756075	0	*77.0576*	0	Turbine: Simple Cycle, Natural Gas	
					NOx					193.1795602	0	*193.1796*	0		
					CO					624.8282909	0	*624.8283*	0		
					NH3					52.00314484	0	*52.0032*	0		
					SO2					5.354375569	0	*5.3544*	0		
					H2SO4					0.819444997	0	*0.8195*	0		
					PM					11.10378656	0	*11.1038*	0		
					PM10					11.10378656	0	*11.1038*	0		
					PM2.5					11.10378656	0	*11.1038*	0		
					CO2 Equivalent					--	--	0	0		
New/Modified	Yes	CT-14B	CT-14B	Large-Frame Combustion Turbine 14 (Annual)	VOC					--	46.61906342	0	*46.6191*	Turbine: Simple Cycle, Natural Gas	
					NOx					--	163.2157553	0	*163.2158*		
					CO					--	368.0611244	0	*368.0612*		
					NH3					--	113.8868872	0	*113.8869*		
					SO2					--	23.45216499	0	*23.4522*		
					H2SO4					--	3.589169088	0	*3.5892*		
					PM					--	48.63458515	0	*48.6346*		
					PM10					--	48.63458515	0	*48.6346*		
					PM2.5					--	48.63458515	0	*48.6346*		
					CO2					--	1955710.657	0	*1955710.657*		
					CH4					--	36.85847449	0	*36.8585*		
					N2O					--	3.685847449	0	*3.6859*		
					CO2 Equivalent					--	1957719.443	0	*1957719.444*		
New/Modified	Yes	DPHEAT1	DPHEAT1	Dewpoint Heater 1	VOC					0.04745098	0.207835294	*0.0475*	*0.2079*	Heater	
					NOx					0.0968	0.423984	*0.0968*	*0.424*		
					CO					0.32504233	1.423685404	*0.3251*	*1.4237*		
					SO2					0.012344188	0.054067542	*0.0124*	*0.0541*		
					PM					0.065568627	0.287190588	*0.0656*	*0.2872*		
					PM10					0.065568627	0.287190588	*0.0656*	*0.2872*		
					PM2.5					0.065568627	0.287190588	*0.0656*	*0.2872*		
					CO2					--	4508.772138	0	*4508.7722*		
					CH4					--	0.084974974	0	*0.085*		
					N2O					--	0.008497497	0	*0.0085*		
					CO2 Equivalent					--	4513.403274	0	*4513.4033*		
New/Modified	Yes	DPHEAT2	DPHEAT2	Dewpoint Heater 2	VOC					0.04745098	0.207835294	*0.0475*	*0.2079*	Heater	
					NOx					0.0968	0.423984	*0.0968*	*0.424*		
					CO					0.32504233	1.423685404	*0.3251*	*1.4237*		
					SO2					0.012344188	0.054067542	*0.0124*	*0.0541*		
					PM					0.065568627	0.287190588	*0.0656*	*0.2872*		
					PM10					0.065568627	0.287190588	*0.0656*	*0.2872*		
					PM2.5					0.065568627	0.287190588	*0.0656*	*0.2872*		
					CO2					--	4508.772138	0	*4508.7722*		
					CH4					--	0.084974974	0	*0.085*		
					N2O					--	0.008497497	0	*0.0085*		
					CO2 Equivalent					--	4513.403274	0	*4513.4033*		
New/Modified	Yes	DPHEAT3	DPHEAT3	Dewpoint Heater 3	VOC					0.04745098	0.207835294	*0.0475*	*0.2079*	Heater	
					NOx					0.0968	0.423984	*0.0968*	*0.424*		
					CO					0.32504233	1.423685404	*0.3251*	*1.4237*		
					SO2					0.012344188	0.054067542	*0.0124*	*0.0541*		
					PM					0.065568627	0.287190588	*0.0656*	*0.2872*		
					PM10					0.065568627	0.287190588	*0.0656*	*0.2872*		

Action Requested (only 1 action per FIN)	Include these emissions in annual (tpy) summary?	Facility ID Number (FIN)	Emission Point Number (EPN)	Source Name	Pollutant	Current Short-Term (lb/hr)	Current Long-Term (tpy)	Consolidated Current Short-Term (lb/hr)	Consolidated Current Long-Term (tpy)	Proposed Short-Term (lb/hr)	Proposed Long-Term (tpy)	Short-Term Difference (lb/hr)	Long-Term Difference (tpy)	Unit Type (Used for reviewing BACT and Monitoring Requirements)	Unit Type Notes (only if "other" unit type in Column O)
					PM2.5					0.065568627	0.287190588	*0.0656*	*0.2872*		
					CO2					--	4508.772138	0	*4508.7722*		
					CH4					--	0.084974974	0	*0.085*		
					N2O					--	0.008497497	0	*0.0085*		
					CO2 Equivalent					--	4513.403274	0	*4513.4033*		
New/Modified	Yes	DPHEAT4	DPHEAT4	Dewpoint Heater 4	VOC					0.04745098	0.207835294	*0.0475*	*0.2079*	Heater	
					NOx					0.0968	0.423984	*0.0968*	*0.424*		
					CO					0.32504233	1.423685404	*0.3251*	*1.4237*		
					SO2					0.012344188	0.054067542	*0.0124*	*0.0541*		
					PM					0.065568627	0.287190588	*0.0656*	*0.2872*		
					PM10					0.065568627	0.287190588	*0.0656*	*0.2872*		
					PM2.5					0.065568627	0.287190588	*0.0656*	*0.2872*		
					CO2					--	4508.772138	0	*4508.7722*		
					CH4					--	0.084974974	0	*0.085*		
					N2O					--	0.008497497	0	*0.0085*		
					CO2 Equivalent					--	4513.403274	0	*4513.4033*		
New/Modified	Yes	DPHEAT5	DPHEAT5	Dewpoint Heater 5	VOC					0.04745098	0.207835294	*0.0475*	*0.2079*	Heater	
					NOx					0.0968	0.423984	*0.0968*	*0.424*		
					CO					0.32504233	1.423685404	*0.3251*	*1.4237*		
					SO2					0.012344188	0.054067542	*0.0124*	*0.0541*		
					PM					0.065568627	0.287190588	*0.0656*	*0.2872*		
					PM10					0.065568627	0.287190588	*0.0656*	*0.2872*		
					PM2.5					0.065568627	0.287190588	*0.0656*	*0.2872*		
					CO2					--	4508.772138	0	*4508.7722*		
					CH4					--	0.084974974	0	*0.085*		
					N2O					--	0.008497497	0	*0.0085*		
					CO2 Equivalent					--	4513.403274	0	*4513.4033*		
New/Modified	Yes	DPHEAT6	DPHEAT6	Dewpoint Heater 6	VOC					0.059852941	0.262155882	*0.0599*	*0.2622*	Heater	
					NOx					0.1221	0.534798	*0.1221*	*0.5348*		
					CO					0.409996575	1.795784999	*0.41*	*1.7958*		
					SO2					0.015570509	0.068198831	*0.0156*	*0.0682*		
					PM					0.082705882	0.362251765	*0.0828*	*0.3623*		
					PM10					0.082705882	0.362251765	*0.0828*	*0.3623*		
					PM2.5					0.082705882	0.362251765	*0.0828*	*0.3623*		
					CO2					--	5687.20122	0	*5687.2013*		
					CH4					--	0.107184343	0	*0.1072*		
					N2O					--	0.010718434	0	*0.0108*		
					CO2 Equivalent					--	5693.042767	0	*5693.0428*		
New/Modified	Yes	DPHEAT7	DPHEAT7	Dewpoint Heater 7	VOC					0.059852941	0.262155882	*0.0599*	*0.2622*	Heater	
					NOx					0.1221	0.534798	*0.1221*	*0.5348*		
					CO					0.409996575	1.795784999	*0.41*	*1.7958*		
					SO2					0.015570509	0.068198831	*0.0156*	*0.0682*		
					PM					0.082705882	0.362251765	*0.0828*	*0.3623*		
					PM10					0.082705882	0.362251765	*0.0828*	*0.3623*		
					PM2.5					0.082705882	0.362251765	*0.0828*	*0.3623*		
					CO2					--	5687.20122	0	*5687.2013*		
					CH4					--	0.107184343	0	*0.1072*		
					N2O					--	0.010718434	0	*0.0108*		
					CO2 Equivalent					--	5693.042767	0	*5693.0428*		
New/Modified	Yes	DPHEAT8	DPHEAT8	Dewpoint Heater 8	VOC					0.059852941	0.262155882	*0.0599*	*0.2622*	Heater	
					NOx					0.1221	0.534798	*0.1221*	*0.5348*		
					CO					0.409996575	1.795784999	*0.41*	*1.7958*		
					SO2					0.015570509	0.068198831	*0.0156*	*0.0682*		
					PM					0.082705882	0.362251765	*0.0828*	*0.3623*		
					PM10					0.082705882	0.362251765	*0.0828*	*0.3623*		
					PM2.5					0.082705882	0.362251765	*0.0828*	*0.3623*		
					CO2					--	5687.20122	0	*5687.2013*		
					CH4					--	0.107184343	0	*0.1072*		
					N2O					--	0.010718434	0	*0.0108*		
					CO2 Equivalent					--	5693.042767	0	*5693.0428*		
New/Modified	Yes	DPHEAT9	DPHEAT9	Dewpoint Heater 9	VOC					0.059852941	0.262155882	*0.0599*	*0.2622*	Heater	
					NOx					0.1221	0.534798	*0.1221*	*0.5348*		
					CO					0.409996575	1.795784999	*0.41*	*1.7958*		
					SO2					0.015570509	0.068198831	*0.0156*	*0.0682*		
					PM					0.082705882	0.362251765	*0.0828*	*0.3623*		
					PM10					0.082705882	0.362251765	*0.0828*	*0.3623*		
					PM2.5					0.082705882	0.362251765	*0.0828*	*0.3623*		
					CO2					--	5687.20122	0	*5687.2013*		
					CH4					--	0.107184343	0	*0.1072*		
					N2O					--	0.010718434	0	*0.0108*		
					CO2 Equivalent					--	5693.042767	0	*5693.0428*		
New/Modified	Yes	DPHEAT10	DPHEAT10	Dewpoint Heater 10	VOC					0.059852941	0.262155882	*0.0599*	*0.2622*	Heater	
					NOx					0.1221	0.534798	*0.1221*	*0.5348*		
					CO					0.409996575	1.795784999	*0.41*	*1.7958*		
					SO2					0.015570509	0.068198831	*0.0156*	*0.0682*		
					PM					0.082705882	0.362251765	*0.0828*	*0.3623*		
					PM10					0.082705882	0.362251765	*0.0828*	*0.3623*		
					PM2.5					0.082705882	0.362251765	*0.0828*	*0.3623*		
					CO2					--	5687.20122	0	*5687.2013*		
					CH4					--	0.107184343	0	*0.1072*		
					N2O					--	0.010718434	0	*0.0108*		
					CO2 Equivalent					--	5693.042767	0	*5693.0428*		
New/Modified	Yes	DPHEAT11	DPHEAT11	Dewpoint Heater 11	VOC					0.059852941	0.262155882	*0.0599*	*0.2622*	Heater	
					NOx					0.1221	0.534798	*0.1221*	*0.5348*		

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					CO					0.409996575	1.795784999	*0.41*	*1.7958*		
					SO2					0.015570509	0.068198831	*0.0156*	*0.0682*		
					PM					0.082705882	0.362251765	*0.0828*	*0.3623*		
					PM10					0.082705882	0.362251765	*0.0828*	*0.3623*		
					PM2.5					0.082705882	0.362251765	*0.0828*	*0.3623*		
					CO2					--	5687.20122	0	*5687.2013*		
					CH4					--	0.107184343	0	*0.1072*		
					N2O					--	0.010718434	0	*0.0108*		
					CO2 Equivalent					--	5693.042767	0	*5693.0428*		
New/Modified	Yes	DPHEAT12	DPHEAT12	Dewpoint Heater 12	VOC					0.059852941	0.262155882	*0.0599*	*0.2622*	Heater	
					NOx					0.1221	0.534798	*0.1221*	*0.5348*		
					CO					0.409996575	1.795784999	*0.41*	*1.7958*		
					SO2					0.015570509	0.068198831	*0.0156*	*0.0682*		
					PM					0.082705882	0.362251765	*0.0828*	*0.3623*		
					PM10					0.082705882	0.362251765	*0.0828*	*0.3623*		
					PM2.5					0.082705882	0.362251765	*0.0828*	*0.3623*		
					CO2					--	5687.20122	0	*5687.2013*		
					CH4					--	0.107184343	0	*0.1072*		
					N2O					--	0.010718434	0	*0.0108*		
					CO2 Equivalent					--	5693.042767	0	*5693.0428*		
New/Modified	Yes	DPHEAT13	DPHEAT13	Dewpoint Heater 13	VOC					0.059852941	0.262155882	*0.0599*	*0.2622*	Heater	
					NOx					0.1221	0.534798	*0.1221*	*0.5348*		
					CO					0.409996575	1.795784999	*0.41*	*1.7958*		
					SO2					0.015570509	0.068198831	*0.0156*	*0.0682*		
					PM					0.082705882	0.362251765	*0.0828*	*0.3623*		
					PM10					0.082705882	0.362251765	*0.0828*	*0.3623*		
					PM2.5					0.082705882	0.362251765	*0.0828*	*0.3623*		
					CO2					--	5687.20122	0	*5687.2013*		
					CH4					--	0.107184343	0	*0.1072*		
					N2O					--	0.010718434	0	*0.0108*		
					CO2 Equivalent					--	5693.042767	0	*5693.0428*		
New/Modified	Yes	DPHEAT14	DPHEAT14	Dewpoint Heater 14	VOC					0.059852941	0.262155882	*0.0599*	*0.2622*	Heater	
					NOx					0.1221	0.534798	*0.1221*	*0.5348*		
					CO					0.409996575	1.795784999	*0.41*	*1.7958*		
					SO2					0.015570509	0.068198831	*0.0156*	*0.0682*		
					PM					0.082705882	0.362251765	*0.0828*	*0.3623*		
					PM10					0.082705882	0.362251765	*0.0828*	*0.3623*		
					PM2.5					0.082705882	0.362251765	*0.0828*	*0.3623*		
					CO2					--	5687.20122	0	*5687.2013*		
					CH4					--	0.107184343	0	*0.1072*		
					N2O					--	0.010718434	0	*0.0108*		
					CO2 Equivalent					--	5693.042767	0	*5693.0428*		
New/Modified	Yes	DPHEAT15	DPHEAT15	Dewpoint Heater 15	VOC					0.059852941	0.262155882	*0.0599*	*0.2622*	Heater	
					NOx					0.1221	0.534798	*0.1221*	*0.5348*		
					CO					0.409996575	1.795784999	*0.41*	*1.7958*		
					SO2					0.015570509	0.068198831	*0.0156*	*0.0682*		
					PM					0.082705882	0.362251765	*0.0828*	*0.3623*		
					PM10					0.082705882	0.362251765	*0.0828*	*0.3623*		
					PM2.5					0.082705882	0.362251765	*0.0828*	*0.3623*		
					CO2					--	5687.20122	0	*5687.2013*		
					CH4					--	0.107184343	0	*0.1072*		
					N2O					--	0.010718434	0	*0.0108*		
					CO2 Equivalent					--	5693.042767	0	*5693.0428*		
New/Modified	Yes	DPHEAT16	DPHEAT16	Dewpoint Heater 16	VOC					0.059852941	0.262155882	*0.0599*	*0.2622*	Heater	
					NOx					0.1221	0.534798	*0.1221*	*0.5348*		
					CO					0.409996575	1.795784999	*0.41*	*1.7958*		
					SO2					0.015570509	0.068198831	*0.0156*	*0.0682*		
					PM					0.082705882	0.362251765	*0.0828*	*0.3623*		
					PM10					0.082705882	0.362251765	*0.0828*	*0.3623*		
					PM2.5					0.082705882	0.362251765	*0.0828*	*0.3623*		
					CO2					--	5687.20122	0	*5687.2013*		
					CH4					--	0.107184343	0	*0.1072*		
					N2O					--	0.010718434	0	*0.0108*		
					CO2 Equivalent					--	5693.042767	0	*5693.0428*		
New/Modified	Yes	DPHEAT17	DPHEAT17	Dewpoint Heater 17	VOC					0.059852941	0.262155882	*0.0599*	*0.2622*	Heater	
					NOx					0.1221	0.534798	*0.1221*	*0.5348*		
					CO					0.409996575	1.795784999	*0.41*	*1.7958*		
					SO2					0.015570509	0.068198831	*0.0156*	*0.0682*		
					PM					0.082705882	0.362251765	*0.0828*	*0.3623*		
					PM10					0.082705882	0.362251765	*0.0828*	*0.3623*		
					PM2.5					0.082705882	0.362251765	*0.0828*	*0.3623*		
					CO2					--	5687.20122	0	*5687.2013*		
					CH4					--	0.107184343	0	*0.1072*		
					N2O					--	0.010718434	0	*0.0108*		
					CO2 Equivalent					--	5693.042767	0	*5693.0428*		
New/Modified	Yes	DPHEAT18	DPHEAT18	Dewpoint Heater 18	VOC					0.059852941	0.262155882	*0.0599*	*0.2622*	Heater	
					NOx					0.1221	0.534798	*0.1221*	*0.5348*		
					CO					0.409996575	1.795784999	*0.41*	*1.7958*		
					SO2					0.015570509	0.068198831	*0.0156*	*0.0682*		
					PM					0.082705882	0.362251765	*0.0828*	*0.3623*		
					PM10					0.082705882	0.362251765	*0.0828*	*0.3623*		
					PM2.5					0.082705882	0.362251765	*0.0828*	*0.3623*		
					CO2					--	5687.20122	0	*5687.2013*		
					CH4					--	0.107184343	0	*0.1072*		

Action Requested (only 1 action per FIN)	Include these emissions in annual (tpy) summary?	Facility ID Number (FIN)	Emission Point Number (EPN)	Source Name	Pollutant	Current Short-Term (lb/hr)	Current Long-Term (tpy)	Consolidated Current Short-Term (lb/hr)	Consolidated Current Long-Term (tpy)	Proposed Short-Term (lb/hr)	Proposed Long-Term (tpy)	Short-Term Difference (lb/hr)	Long-Term Difference (tpy)	Unit Type (Used for reviewing BACT and Monitoring Requirements)	Unit Type Notes (only if "other" unit type in Column O)
					N2O					--	0.010718434	0	*0.0108*		
					CO2 Equivalent					--	5693.042767	0	*5693.0428*		
New/Modified	Yes	DPHEAT19	DPHEAT19	Dewpoint Heater 19	VOC					0.059852941	0.262155882	*0.0599*	*0.2622*	Heater	
					NOx					0.1221	0.534798	*0.1221*	*0.5348*		
					CO					0.409996575	1.795784999	*0.41*	*1.7958*		
					SO2					0.015570509	0.068198831	*0.0156*	*0.0682*		
					PM					0.082705882	0.362251765	*0.0828*	*0.3623*		
					PM10					0.082705882	0.362251765	*0.0828*	*0.3623*		
					PM2.5					0.082705882	0.362251765	*0.0828*	*0.3623*		
					CO2					--	5687.20122	0	*5687.2013*		
					CH4					--	0.107184343	0	*0.1072*		
					N2O					--	0.010718434	0	*0.0108*		
					CO2 Equivalent					--	5693.042767	0	*5693.0428*		
New/Modified	Yes	OILVENT1	OILVENT1	Lube Oil Vent 1	VOC					0.01815	0.079497	*0.0182*	*0.0795*	Process Vent	
					PM					0.01815	0.079497	*0.0182*	*0.0795*		
					PM10					0.01815	0.079497	*0.0182*	*0.0795*		
					PM2.5					0.01815	0.079497	*0.0182*	*0.0795*		
New/Modified	Yes	OILVENT2	OILVENT2	Lube Oil Vent 2	VOC					0.01815	0.079497	*0.0182*	*0.0795*	Process Vent	
					PM					0.01815	0.079497	*0.0182*	*0.0795*		
					PM10					0.01815	0.079497	*0.0182*	*0.0795*		
					PM2.5					0.01815	0.079497	*0.0182*	*0.0795*		
New/Modified	Yes	OILVENT3	OILVENT3	Lube Oil Vent 3	VOC					0.01815	0.079497	*0.0182*	*0.0795*	Process Vent	
					PM					0.01815	0.079497	*0.0182*	*0.0795*		
					PM10					0.01815	0.079497	*0.0182*	*0.0795*		
					PM2.5					0.01815	0.079497	*0.0182*	*0.0795*		
New/Modified	Yes	OILVENT4	OILVENT4	Lube Oil Vent 4	VOC					0.01815	0.079497	*0.0182*	*0.0795*	Process Vent	
					PM					0.01815	0.079497	*0.0182*	*0.0795*		
					PM10					0.01815	0.079497	*0.0182*	*0.0795*		
					PM2.5					0.01815	0.079497	*0.0182*	*0.0795*		
New/Modified	Yes	OILVENT5	OILVENT5	Lube Oil Vent 5	VOC					0.01815	0.079497	*0.0182*	*0.0795*	Process Vent	
					PM					0.01815	0.079497	*0.0182*	*0.0795*		
					PM10					0.01815	0.079497	*0.0182*	*0.0795*		
					PM2.5					0.01815	0.079497	*0.0182*	*0.0795*		
New/Modified	Yes	OILVENT6	OILVENT6	Lube Oil Vent 6	VOC					0.01815	0.079497	*0.0182*	*0.0795*	Process Vent	
					PM					0.01815	0.079497	*0.0182*	*0.0795*		
					PM10					0.01815	0.079497	*0.0182*	*0.0795*		
					PM2.5					0.01815	0.079497	*0.0182*	*0.0795*		
New/Modified	Yes	OILVENT7	OILVENT7	Lube Oil Vent 7	VOC					0.01815	0.079497	*0.0182*	*0.0795*	Process Vent	
					PM					0.01815	0.079497	*0.0182*	*0.0795*		
					PM10					0.01815	0.079497	*0.0182*	*0.0795*		
					PM2.5					0.01815	0.079497	*0.0182*	*0.0795*		
New/Modified	Yes	OILVENT8	OILVENT8	Lube Oil Vent 8	VOC					0.01815	0.079497	*0.0182*	*0.0795*	Process Vent	
					PM					0.01815	0.079497	*0.0182*	*0.0795*		
					PM10					0.01815	0.079497	*0.0182*	*0.0795*		
					PM2.5					0.01815	0.079497	*0.0182*	*0.0795*		
New/Modified	Yes	OILVENT9	OILVENT9	Lube Oil Vent 9	VOC					0.01815	0.079497	*0.0182*	*0.0795*	Process Vent	
					PM					0.01815	0.079497	*0.0182*	*0.0795*		
					PM10					0.01815	0.079497	*0.0182*	*0.0795*		
					PM2.5					0.01815	0.079497	*0.0182*	*0.0795*		
New/Modified	Yes	OILVENT10	OILVENT10	Lube Oil Vent 10	VOC					0.01815	0.079497	*0.0182*	*0.0795*	Process Vent	
					PM					0.01815	0.079497	*0.0182*	*0.0795*		
					PM10					0.01815	0.079497	*0.0182*	*0.0795*		
					PM2.5					0.01815	0.079497	*0.0182*	*0.0795*		
New/Modified	Yes	OILVENT11	OILVENT11	Lube Oil Vent 11	VOC					0.01815	0.079497	*0.0182*	*0.0795*	Process Vent	
					PM					0.01815	0.079497	*0.0182*	*0.0795*		
					PM10					0.01815	0.079497	*0.0182*	*0.0795*		
					PM2.5					0.01815	0.079497	*0.0182*	*0.0795*		
New/Modified	Yes	OILVENT12	OILVENT12	Lube Oil Vent 12	VOC					0.01815	0.079497	*0.0182*	*0.0795*	Process Vent	
					PM					0.01815	0.079497	*0.0182*	*0.0795*		
					PM10					0.01815	0.079497	*0.0182*	*0.0795*		
					PM2.5					0.01815	0.079497	*0.0182*	*0.0795*		
New/Modified	Yes	OILVENT13	OILVENT13	Lube Oil Vent 13	VOC					0.01815	0.079497	*0.0182*	*0.0795*	Process Vent	
					PM					0.01815	0.079497	*0.0182*	*0.0795*		
					PM10					0.01815	0.079497	*0.0182*	*0.0795*		
					PM2.5					0.01815	0.079497	*0.0182*	*0.0795*		
New/Modified	Yes	OILVENT14	OILVENT14	Lube Oil Vent 14	VOC					0.01815	0.079497	*0.0182*	*0.0795*	Process Vent	
					PM					0.01815	0.079497	*0.0182*	*0.0795*		
					PM10					0.01815	0.079497	*0.0182*	*0.0795*		
					PM2.5					0.01815	0.079497	*0.0182*	*0.0795*		
New/Modified	Yes	OILVENT15	OILVENT15	Lube Oil Vent 15	VOC					0.01815	0.079497	*0.0182*	*0.0795*	Process Vent	
					PM					0.01815	0.079497	*0.0182*	*0.0795*		
					PM10					0.01815	0.079497	*0.0182*	*0.0795*		
					PM2.5					0.01815	0.079497	*0.0182*	*0.0795*		
New/Modified	Yes	OILVENT16	OILVENT16	Lube Oil Vent 16	VOC					0.01815	0.079497	*0.0182*	*0.0795*	Process Vent	
					PM					0.01815	0.079497	*0.0182*	*0.0795*		
					PM10					0.01815	0.079497	*0.0182*	*0.0795*		
					PM2.5					0.01815	0.079497	*0.0182*	*0.0795*		
New/Modified	Yes	OILVENT17	OILVENT17	Lube Oil Vent 17	VOC					0.01815	0.079497	*0.0182*	*0.0795*	Process Vent	
					PM					0.01815	0.079497	*0.0182*	*0.0795*		
					PM10					0.01815	0.079497	*0.0182*	*0.0795*		
					PM2.5					0.01815	0.079497	*0.0182*	*0.0795*		
New/Modified	Yes	OILVENT18	OILVENT18	Lube Oil Vent 18	VOC					0.01815	0.079497	*0.0182*	*0.0795*	Process Vent	
					PM					0.01815	0.079497	*0.0182*	*0.0795*		
					PM10					0.01815	0.079497	*0.0182*	*0.0795*		

Action Requested (only 1 action per FIN)	Include these emissions in annual (tpy) summary?	Facility ID Number (FIN)	Emission Point Number (EPN)	Source Name	Pollutant	Current Short-Term (lb/hr)	Current Long-Term (tpy)	Consolidated Current Short-Term (lb/hr)	Consolidated Current Long-Term (tpy)	Proposed Short-Term (lb/hr)	Proposed Long-Term (tpy)	Short-Term Difference (lb/hr)	Long-Term Difference (tpy)	Unit Type (Used for reviewing BACT and Monitoring Requirements)	Unit Type Notes (only if "other" unit type in Column O)
					PM2.5					0.01815	0.079497	*0.0182*	*0.0795*		
New/Modified	Yes	OILVENT19	OILVENT19	Lube Oil Vent 19	VOC					0.01815	0.079497	*0.0182*	*0.0795*	Process Vent	
					PM					0.01815	0.079497	*0.0182*	*0.0795*		
					PM10					0.01815	0.079497	*0.0182*	*0.0795*		
					PM2.5					0.01815	0.079497	*0.0182*	*0.0795*		
New/Modified	Yes	OILVENT20	OILVENT20	Lube Oil Vent 20	VOC					0.01815	0.079497	*0.0182*	*0.0795*	Process Vent	
					PM					0.01815	0.079497	*0.0182*	*0.0795*		
					PM10					0.01815	0.079497	*0.0182*	*0.0795*		
					PM2.5					0.01815	0.079497	*0.0182*	*0.0795*		
New/Modified	Yes	OILVENT21	OILVENT21	Lube Oil Vent 21	VOC					0.01815	0.079497	*0.0182*	*0.0795*	Process Vent	
					PM					0.01815	0.079497	*0.0182*	*0.0795*		
					PM10					0.01815	0.079497	*0.0182*	*0.0795*		
					PM2.5					0.01815	0.079497	*0.0182*	*0.0795*		
New/Modified	Yes	OILVENT22	OILVENT22	Lube Oil Vent 22	VOC					0.01815	0.079497	*0.0182*	*0.0795*	Process Vent	
					PM					0.01815	0.079497	*0.0182*	*0.0795*		
					PM10					0.01815	0.079497	*0.0182*	*0.0795*		
					PM2.5					0.01815	0.079497	*0.0182*	*0.0795*		
New/Modified	Yes	OILVENT23	OILVENT23	Lube Oil Vent 23	VOC					0.01815	0.079497	*0.0182*	*0.0795*	Process Vent	
					PM					0.01815	0.079497	*0.0182*	*0.0795*		
					PM10					0.01815	0.079497	*0.0182*	*0.0795*		
					PM2.5					0.01815	0.079497	*0.0182*	*0.0795*		
New/Modified	Yes	OILVENT24	OILVENT24	Lube Oil Vent 24	VOC					0.01815	0.079497	*0.0182*	*0.0795*	Process Vent	
					PM					0.01815	0.079497	*0.0182*	*0.0795*		
					PM10					0.01815	0.079497	*0.0182*	*0.0795*		
					PM2.5					0.01815	0.079497	*0.0182*	*0.0795*		
New/Modified	Yes	OILVENT25	OILVENT25	Lube Oil Vent 25	VOC					0.01815	0.079497	*0.0182*	*0.0795*	Process Vent	
					PM					0.01815	0.079497	*0.0182*	*0.0795*		
					PM10					0.01815	0.079497	*0.0182*	*0.0795*		
					PM2.5					0.01815	0.079497	*0.0182*	*0.0795*		
New/Modified	Yes	OILVENT26	OILVENT26	Lube Oil Vent 26	VOC					0.01815	0.079497	*0.0182*	*0.0795*	Process Vent	
					PM					0.01815	0.079497	*0.0182*	*0.0795*		
					PM10					0.01815	0.079497	*0.0182*	*0.0795*		
					PM2.5					0.01815	0.079497	*0.0182*	*0.0795*		
New/Modified	Yes	OILVENT27	OILVENT27	Lube Oil Vent 27	VOC					0.01815	0.079497	*0.0182*	*0.0795*	Process Vent	
					PM					0.01815	0.079497	*0.0182*	*0.0795*		
					PM10					0.01815	0.079497	*0.0182*	*0.0795*		
					PM2.5					0.01815	0.079497	*0.0182*	*0.0795*		
New/Modified	Yes	OILVENT28	OILVENT28	Lube Oil Vent 28	VOC					0.01815	0.079497	*0.0182*	*0.0795*	Process Vent	
					PM					0.01815	0.079497	*0.0182*	*0.0795*		
					PM10					0.01815	0.079497	*0.0182*	*0.0795*		
					PM2.5					0.01815	0.079497	*0.0182*	*0.0795*		
New/Modified	Yes	OILVENT29	OILVENT29	Lube Oil Vent 29	VOC					0.01815	0.079497	*0.0182*	*0.0795*	Process Vent	
					PM					0.01815	0.079497	*0.0182*	*0.0795*		
					PM10					0.01815	0.079497	*0.0182*	*0.0795*		
					PM2.5					0.01815	0.079497	*0.0182*	*0.0795*		
New/Modified	Yes	OILVENT30	OILVENT30	Lube Oil Vent 30	VOC					0.01815	0.079497	*0.0182*	*0.0795*	Process Vent	
					PM					0.01815	0.079497	*0.0182*	*0.0795*		
					PM10					0.01815	0.079497	*0.0182*	*0.0795*		
					PM2.5					0.01815	0.079497	*0.0182*	*0.0795*		
New/Modified	Yes	OILVENT31	OILVENT31	Lube Oil Vent 31	VOC					0.01815	0.079497	*0.0182*	*0.0795*	Process Vent	
					PM					0.01815	0.079497	*0.0182*	*0.0795*		
					PM10					0.01815	0.079497	*0.0182*	*0.0795*		
					PM2.5					0.01815	0.079497	*0.0182*	*0.0795*		
New/Modified	Yes	OILVENT32	OILVENT32	Lube Oil Vent 32	VOC					0.01815	0.079497	*0.0182*	*0.0795*	Process Vent	
					PM					0.01815	0.079497	*0.0182*	*0.0795*		
					PM10					0.01815	0.079497	*0.0182*	*0.0795*		
					PM2.5					0.01815	0.079497	*0.0182*	*0.0795*		
New/Modified	Yes	OILVENT33	OILVENT33	Lube Oil Vent 33	VOC					0.01815	0.079497	*0.0182*	*0.0795*	Process Vent	
					PM					0.01815	0.079497	*0.0182*	*0.0795*		
					PM10					0.01815	0.079497	*0.0182*	*0.0795*		
					PM2.5					0.01815	0.079497	*0.0182*	*0.0795*		
New/Modified	Yes	OILVENT34	OILVENT34	Lube Oil Vent 34	VOC					0.01815	0.079497	*0.0182*	*0.0795*	Process Vent	
					PM					0.01815	0.079497	*0.0182*	*0.0795*		
					PM10					0.01815	0.079497	*0.0182*	*0.0795*		
					PM2.5					0.01815	0.079497	*0.0182*	*0.0795*		
New/Modified	Yes	OILVENT35	OILVENT35	Lube Oil Vent 35	VOC					0.01815	0.079497	*0.0182*	*0.0795*	Process Vent	
					PM					0.01815	0.079497	*0.0182*	*0.0795*		
					PM10					0.01815	0.079497	*0.0182*	*0.0795*		
					PM2.5					0.01815	0.079497	*0.0182*	*0.0795*		
New/Modified	Yes	TNK-DSL1	TNK-DSL1	Diesel Tank 1	VOC					0.109079392	0.006001032	*0.1091*	*0.0061*	Storage Tank (1): Fixed roof with capacity < 25,000 gal or TVP < 0.50 psia	
New/Modified	Yes	TNK-DSL2	TNK-DSL2	Diesel Tank 2	VOC					0.109079392	0.006001032	*0.1091*	*0.0061*	Storage Tank (1): Fixed roof with capacity < 25,000 gal or TVP < 0.50 psia	
New/Modified	Yes	TNK-DSL3	TNK-DSL3	Diesel Tank 3	VOC					0.109079392	0.006001032	*0.1091*	*0.0061*	Storage Tank (1): Fixed roof with capacity < 25,000 gal or TVP < 0.50 psia	
New/Modified	Yes	TNK-DSL4	TNK-DSL4	Diesel Tank 4	VOC					0.109079392	0.006001032	*0.1091*	*0.0061*	Storage Tank (1): Fixed roof with capacity < 25,000 gal or TVP < 0.50 psia	
New/Modified	Yes	TNK-DSL5	TNK-DSL5	Diesel Tank 5	VOC					0.109079392	0.003038807	*0.1091*	*0.0031*	Storage Tank (1): Fixed roof with capacity < 25,000 gal or TVP < 0.50 psia	
New/Modified	Yes	TNK-DSL6	TNK-DSL6	Diesel Tank 6	VOC					0.109079392	0.003038807	*0.1091*	*0.0031*	Storage Tank (1): Fixed roof with capacity < 25,000 gal or TVP < 0.50 psia	
New/Modified	Yes	TNK-DSL7	TNK-DSL7	Diesel Tank 7	VOC					0.109079392	0.003038807	*0.1091*	*0.0031*	Storage Tank (1): Fixed roof with capacity < 25,000 gal or TVP < 0.50 psia	
New/Modified	Yes	FPUMP1	FPUMP1	Firewater Pump 1	VOC					0.040344594	0.00201723	*0.0404*	*0.0021*	Engine: Emergency, Diesel	
					NOx					1.80878263	0.090439132	*1.8088*	*0.0905*		

Action Requested (only 1 action per FIN)	Include these emissions in annual (tpy) summary?	Facility ID Number (FIN)	Emission Point Number (EPN)	Source Name	Pollutant	Current Short-Term (lb/hr)	Current Long-Term (tpy)	Consolidated Current Short-Term (lb/hr)	Consolidated Current Long-Term (tpy)	Proposed Short-Term (lb/hr)	Proposed Long-Term (tpy)	Short-Term Difference (lb/hr)	Long-Term Difference (tpy)	Unit Type (Used for reviewing BACT and Monitoring Requirements)	Unit Type Notes (only if "other" unit type in Column O)
					CO					0.26896396	0.013448198	*0.269*	*0.0135*		
					SO2					0.003267023	0.000163351	*0.0033*	*0.0002*		
					PM					0.040344594	0.00201723	*0.0404*	*0.0021*		
					PM10					0.040344594	0.00201723	*0.0404*	*0.0021*		
					PM2.5					0.040344594	0.00201723	*0.0404*	*0.0021*		
					CO2					--	6.326916804	0	*6.327*		
					CH4					--	0.000256635	0	*0.0003*		
					N2O					--	5.13271E-05	0	*0.0001*		
					CO2 Equivalent					--	6.347704267	0	*6.3478*		
New/Modified	Yes	FPUMP2	FPUMP2	Firewater Pump 2	VOC					0.040344594	0.00201723	*0.0404*	*0.0021*	Engine: Emergency, Diesel	
					NOx					1.80878263	0.090439132	*1.8088*	*0.0905*		
					CO					0.26896396	0.013448198	*0.269*	*0.0135*		
					SO2					0.003267023	0.000163351	*0.0033*	*0.0002*		
					PM					0.040344594	0.00201723	*0.0404*	*0.0021*		
					PM10					0.040344594	0.00201723	*0.0404*	*0.0021*		
					PM2.5					0.040344594	0.00201723	*0.0404*	*0.0021*		
					CO2					--	6.326916804	0	*6.327*		
					CH4					--	0.000256635	0	*0.0003*		
					N2O					--	5.13271E-05	0	*0.0001*		
					CO2 Equivalent					--	6.347704267	0	*6.3478*		
New/Modified	Yes	EGEN1	EGEN1	Emergency Engine 1	VOC					2.660802872	0.133040144	*2.6609*	*0.1331*	Engine: Emergency, Diesel	
					NOx					46.20927654	2.310463827	*46.2093*	*2.3105*		
					CO					5.144218885	0.257210944	*5.1443*	*0.2573*		
					SO2					0.053216057	0.002660803	*0.0533*	*0.0027*		
					PM					1.685175152	0.084258758	*1.6852*	*0.0843*		
					PM10					1.685175152	0.084258758	*1.6852*	*0.0843*		
					PM2.5					1.685175152	0.084258758	*1.6852*	*0.0843*		
					CO2					--	83.45444452	0	*83.4545*		
					CH4					--	0.003385118	0	*0.0034*		
					N2O					--	0.000677024	0	*0.0007*		
					CO2 Equivalent					--	83.72863909	0	*83.7287*		
New/Modified	Yes	EGEN2	EGEN2	Emergency Engine 2	VOC					2.660802872	0.133040144	*2.6609*	*0.1331*	Engine: Emergency, Diesel	
					NOx					46.20927654	2.310463827	*46.2093*	*2.3105*		
					CO					5.144218885	0.257210944	*5.1443*	*0.2573*		
					SO2					0.053216057	0.002660803	*0.0533*	*0.0027*		
					PM					1.685175152	0.084258758	*1.6852*	*0.0843*		
					PM10					1.685175152	0.084258758	*1.6852*	*0.0843*		
					PM2.5					1.685175152	0.084258758	*1.6852*	*0.0843*		
					CO2					--	83.45444452	0	*83.4545*		
					CH4					--	0.003385118	0	*0.0034*		
					N2O					--	0.000677024	0	*0.0007*		
					CO2 Equivalent					--	83.72863909	0	*83.7287*		
New/Modified	Yes	EGEN3	EGEN3	Emergency Engine 3	VOC					2.660802872	0.133040144	*2.6609*	*0.1331*	Engine: Emergency, Diesel	
					NOx					46.20927654	2.310463827	*46.2093*	*2.3105*		
					CO					5.144218885	0.257210944	*5.1443*	*0.2573*		
					SO2					0.053216057	0.002660803	*0.0533*	*0.0027*		
					PM					1.685175152	0.084258758	*1.6852*	*0.0843*		
					PM10					1.685175152	0.084258758	*1.6852*	*0.0843*		
					PM2.5					1.685175152	0.084258758	*1.6852*	*0.0843*		
					CO2					--	83.45444452	0	*83.4545*		
					CH4					--	0.003385118	0	*0.0034*		
					N2O					--	0.000677024	0	*0.0007*		
					CO2 Equivalent					--	83.72863909	0	*83.7287*		
New/Modified	Yes	EGEN4	EGEN4	Emergency Engine 4	VOC					2.660802872	0.133040144	*2.6609*	*0.1331*	Engine: Emergency, Diesel	
					NOx					46.20927654	2.310463827	*46.2093*	*2.3105*		
					CO					5.144218885	0.257210944	*5.1443*	*0.2573*		
					SO2					0.053216057	0.002660803	*0.0533*	*0.0027*		
					PM					1.685175152	0.084258758	*1.6852*	*0.0843*		
					PM10					1.685175152	0.084258758	*1.6852*	*0.0843*		
					PM2.5					1.685175152	0.084258758	*1.6852*	*0.0843*		
					CO2					--	83.45444452	0	*83.4545*		
					CH4					--	0.003385118	0	*0.0034*		
					N2O					--	0.000677024	0	*0.0007*		
					CO2 Equivalent					--	83.72863909	0	*83.7287*		
New/Modified	Yes	EGEN5	EGEN5	Emergency Engine 5	VOC					2.660802872	0.133040144	*2.6609*	*0.1331*	Engine: Emergency, Diesel	
					NOx					46.20927654	2.310463827	*46.2093*	*2.3105*		
					CO					5.144218885	0.257210944	*5.1443*	*0.2573*		
					SO2					0.053216057	0.002660803	*0.0533*	*0.0027*		
					PM					1.685175152	0.084258758	*1.6852*	*0.0843*		
					PM10					1.685175152	0.084258758	*1.6852*	*0.0843*		
					PM2.5					1.685175152	0.084258758	*1.6852*	*0.0843*		
					CO2					--	83.45444452	0	*83.4545*		
					CH4					--	0.003385118	0	*0.0034*		
					N2O					--	0.000677024	0	*0.0007*		
					CO2 Equivalent					--	83.72863909	0	*83.7287*		
New/Modified	Yes	EGEN6	EGEN6	Emergency Engine 6	VOC					2.660802872	0.133040144	*2.6609*	*0.1331*	Engine: Emergency, Diesel	
					NOx					46.20927654	2.310463827	*46.2093*	*2.3105*		
					CO					5.144218885	0.257210944	*5.1443*	*0.2573*		
					SO2					0.053216057	0.002660803	*0.0533*	*0.0027*		
					PM					1.685175152	0.084258758	*1.6852*	*0.0843*		
					PM10					1.685175152	0.084258758	*1.6852*	*0.0843*		
					PM2.5					1.685175152	0.084258758	*1.6852*	*0.0843*		
					CO2					--	83.45444452	0	*83.4545*		
					CH4					--	0.003385118	0	*0.0034*		

Action Requested (only 1 action per FIN)	Include these emissions in annual (tpy) summary?	Facility ID Number (FIN)	Emission Point Number (EPN)	Source Name	Pollutant	Current Short-Term (lb/hr)	Current Long-Term (tpy)	Consolidated Current Short-Term (lb/hr)	Consolidated Current Long-Term (tpy)	Proposed Short-Term (lb/hr)	Proposed Long-Term (tpy)	Short-Term Difference (lb/hr)	Long-Term Difference (tpy)	Unit Type (Used for reviewing BACT and Monitoring Requirements)	Unit Type Notes (only if "other" unit type in Column O)
					N2O					--	0.000677024	0	*0.0007*		
					CO2 Equivalent					--	83.72863909	0	*83.7287*		
New/Modified	Yes	EGEN7	EGEN7	Emergency Engine 7	VOC					2.660802872	0.133040144	*2.6609*	*0.1331*	Engine: Emergency, Diesel	
					NOx					46.20927654	2.310463827	*46.2093*	*2.3105*		
					CO					5.144218885	0.257210944	*5.1443*	*0.2573*		
					SO2					0.053216057	0.002660803	*0.0533*	*0.0027*		
					PM					1.685175152	0.084258758	*1.6852*	*0.0843*		
					PM10					1.685175152	0.084258758	*1.6852*	*0.0843*		
					PM2.5					1.685175152	0.084258758	*1.6852*	*0.0843*		
					CO2					--	83.45444452	0	*83.4545*		
					CH4					--	0.003385118	0	*0.0034*		
					N2O					--	0.000677024	0	*0.0007*		
					CO2 Equivalent					--	83.72863909	0	*83.7287*		
New/Modified	Yes	EGEN8	EGEN8	Emergency Engine 8	VOC					2.660802872	0.133040144	*2.6609*	*0.1331*	Engine: Emergency, Diesel	
					NOx					46.20927654	2.310463827	*46.2093*	*2.3105*		
					CO					5.144218885	0.257210944	*5.1443*	*0.2573*		
					SO2					0.053216057	0.002660803	*0.0533*	*0.0027*		
					PM					1.685175152	0.084258758	*1.6852*	*0.0843*		
					PM10					1.685175152	0.084258758	*1.6852*	*0.0843*		
					PM2.5					1.685175152	0.084258758	*1.6852*	*0.0843*		
					CO2					--	83.45444452	0	*83.4545*		
					CH4					--	0.003385118	0	*0.0034*		
					N2O					--	0.000677024	0	*0.0007*		
					CO2 Equivalent					--	83.72863909	0	*83.7287*		
New/Modified	Yes	EGEN9	EGEN9	Emergency Engine 9	VOC					2.660802872	0.133040144	*2.6609*	*0.1331*	Engine: Emergency, Diesel	
					NOx					46.20927654	2.310463827	*46.2093*	*2.3105*		
					CO					5.144218885	0.257210944	*5.1443*	*0.2573*		
					SO2					0.053216057	0.002660803	*0.0533*	*0.0027*		
					PM					1.685175152	0.084258758	*1.6852*	*0.0843*		
					PM10					1.685175152	0.084258758	*1.6852*	*0.0843*		
					PM2.5					1.685175152	0.084258758	*1.6852*	*0.0843*		
					CO2					--	83.45444452	0	*83.4545*		
					CH4					--	0.003385118	0	*0.0034*		
					N2O					--	0.000677024	0	*0.0007*		
					CO2 Equivalent					--	83.72863909	0	*83.7287*		
New/Modified	Yes	EGEN10	EGEN10	Emergency Engine 10	VOC					2.660802872	0.133040144	*2.6609*	*0.1331*	Engine: Emergency, Diesel	
					NOx					46.20927654	2.310463827	*46.2093*	*2.3105*		
					CO					5.144218885	0.257210944	*5.1443*	*0.2573*		
					SO2					0.053216057	0.002660803	*0.0533*	*0.0027*		
					PM					1.685175152	0.084258758	*1.6852*	*0.0843*		
					PM10					1.685175152	0.084258758	*1.6852*	*0.0843*		
					PM2.5					1.685175152	0.084258758	*1.6852*	*0.0843*		
					CO2					--	83.45444452	0	*83.4545*		
					CH4					--	0.003385118	0	*0.0034*		
					N2O					--	0.000677024	0	*0.0007*		
					CO2 Equivalent					--	83.72863909	0	*83.7287*		
New/Modified	Yes	EGEN11	EGEN11	Emergency Engine 11	VOC					2.660802872	0.133040144	*2.6609*	*0.1331*	Engine: Emergency, Diesel	
					NOx					46.20927654	2.310463827	*46.2093*	*2.3105*		
					CO					5.144218885	0.257210944	*5.1443*	*0.2573*		
					SO2					0.053216057	0.002660803	*0.0533*	*0.0027*		
					PM					1.685175152	0.084258758	*1.6852*	*0.0843*		
					PM10					1.685175152	0.084258758	*1.6852*	*0.0843*		
					PM2.5					1.685175152	0.084258758	*1.6852*	*0.0843*		
					CO2					--	83.45444452	0	*83.4545*		
					CH4					--	0.003385118	0	*0.0034*		
					N2O					--	0.000677024	0	*0.0007*		
					CO2 Equivalent					--	83.72863909	0	*83.7287*		
New/Modified	Yes	EGEN12	EGEN12	Emergency Engine 12	VOC					2.660802872	0.133040144	*2.6609*	*0.1331*	Engine: Emergency, Diesel	
					NOx					46.20927654	2.310463827	*46.2093*	*2.3105*		
					CO					5.144218885	0.257210944	*5.1443*	*0.2573*		
					SO2					0.053216057	0.002660803	*0.0533*	*0.0027*		
					PM					1.685175152	0.084258758	*1.6852*	*0.0843*		
					PM10					1.685175152	0.084258758	*1.6852*	*0.0843*		
					PM2.5					1.685175152	0.084258758	*1.6852*	*0.0843*		
					CO2					--	83.45444452	0	*83.4545*		
					CH4					--	0.003385118	0	*0.0034*		
					N2O					--	0.000677024	0	*0.0007*		
					CO2 Equivalent					--	83.72863909	0	*83.7287*		
New/Modified	Yes	EGEN13	EGEN13	Emergency Engine 13	VOC					2.660802872	0.133040144	*2.6609*	*0.1331*	Engine: Emergency, Diesel	
					NOx					46.20927654	2.310463827	*46.2093*	*2.3105*		
					CO					5.144218885	0.257210944	*5.1443*	*0.2573*		
					SO2					0.053216057	0.002660803	*0.0533*	*0.0027*		
					PM					1.685175152	0.084258758	*1.6852*	*0.0843*		
					PM10					1.685175152	0.084258758	*1.6852*	*0.0843*		
					PM2.5					1.685175152	0.084258758	*1.6852*	*0.0843*		
					CO2					--	83.45444452	0	*83.4545*		
					CH4					--	0.003385118	0	*0.0034*		
					N2O					--	0.000677024	0	*0.0007*		
					CO2 Equivalent					--	83.72863909	0	*83.7287*		
New/Modified	Yes	EGEN14	EGEN14	Emergency Engine 14	VOC					2.660802872	0.133040144	*2.6609*	*0.1331*	Engine: Emergency, Diesel	
					NOx					46.20927654	2.310463827	*46.2093*	*2.3105*		
					CO					5.144218885	0.257210944	*5.1443*	*0.2573*		
					SO2					0.053216057	0.002660803	*0.0533*	*0.0027*		
					PM					1.685175152	0.084258758	*1.6852*	*0.0843*		

Action Requested (only 1 action per FIN)	Include these emissions in annual (tpy) summary?	Facility ID Number (FIN)	Emission Point Number (EPN)	Source Name	Pollutant	Current Short-Term (lb/hr)	Current Long-Term (tpy)	Consolidated Current Short-Term (lb/hr)	Consolidated Current Long-Term (tpy)	Proposed Short-Term (lb/hr)	Proposed Long-Term (tpy)	Short-Term Difference (lb/hr)	Long-Term Difference (tpy)	Unit Type (Used for reviewing BACT and Monitoring Requirements)	Unit Type Notes (only if "other" unit type in Column O)
					PM10					1.685175152	0.084258758	*1.6852*	*0.0843*		
					PM2.5					1.685175152	0.084258758	*1.6852*	*0.0843*		
					CO2					--	83.45444452	0	*83.4545*		
					CH4					--	0.003385118	0	*0.0034*		
					N2O					--	0.000677024	0	*0.0007*		
					CO2 Equivalent					--	83.72863909	0	*83.7287*		
New/Modified	Yes	EGEN15	EGEN15	Emergency Engine 15	VOC					2.660802872	0.133040144	*2.6609*	*0.1331*	Engine: Emergency, Diesel	
					NOx					46.20927654	2.310463827	*46.2093*	*2.3105*		
					CO					5.144218885	0.257210944	*5.1443*	*0.2573*		
					SO2					0.053216057	0.002660803	*0.0533*	*0.0027*		
					PM					1.685175152	0.084258758	*1.6852*	*0.0843*		
					PM10					1.685175152	0.084258758	*1.6852*	*0.0843*		
					PM2.5					1.685175152	0.084258758	*1.6852*	*0.0843*		
					CO2					--	83.45444452	0	*83.4545*		
					CH4					--	0.003385118	0	*0.0034*		
					N2O					--	0.000677024	0	*0.0007*		
					CO2 Equivalent					--	83.72863909	0	*83.7287*		
New/Modified	Yes	ENGINE-1	ENGINE-1	Supplemental Engine Generator 1	VOC					38.94824115	19.47412057	*38.9483*	*19.4742*	Engine: Internal Combustion Engine, Spark Ignited	
					NOx					38.94824115	19.47412057	*38.9483*	*19.4742*		
					CO					111.280689	55.64034449	*111.2807*	*55.6404*		
					SO2					0.094398264	0.047199132	*0.0944*	*0.0472*		
					PM					0.64133667	0.320668335	*0.6414*	*0.3207*		
					PM10					0.64133667	0.320668335	*0.6414*	*0.3207*		
					PM2.5					0.64133667	0.320668335	*0.6414*	*0.3207*		
					CO2					--	3755.935956	0	*3755.936*		
					CH4					--	0.07078658	0	*0.0708*		
					N2O					--	0.007078658	0	*0.0071*		
					CO2 Equivalent					--	3759.793825	0	*3759.7939*		
New/Modified	Yes	ENGINE-2	ENGINE-2	Supplemental Engine Generator 2	VOC					38.94824115	19.47412057	*38.9483*	*19.4742*	Engine: Internal Combustion Engine, Spark Ignited	
					NOx					38.94824115	19.47412057	*38.9483*	*19.4742*		
					CO					111.280689	55.64034449	*111.2807*	*55.6404*		
					SO2					0.094398264	0.047199132	*0.0944*	*0.0472*		
					PM					0.64133667	0.320668335	*0.6414*	*0.3207*		
					PM10					0.64133667	0.320668335	*0.6414*	*0.3207*		
					PM2.5					0.64133667	0.320668335	*0.6414*	*0.3207*		
					CO2					--	3755.935956	0	*3755.936*		
					CH4					--	0.07078658	0	*0.0708*		
					N2O					--	0.007078658	0	*0.0071*		
					CO2 Equivalent					--	3759.793825	0	*3759.7939*		
New/Modified	Yes	MSSFUG	MSSFUG	ILE Turbine Maintenance Activities	VOC					8.560427669	0.554652119	*8.5605*	*0.5547*	MSS Activities	
					NOx					0.004180732	0.001463256	*0.0042*	*0.0015*		
					CO					0.002544794	0.000890678	*0.0026*	*0.0009*		
					NH3					0.126784584	0.000853867	*0.1268*	*0.0009*		
					H2S					0.004638409	3.20218E-05	*0.0047*	*0.0001*		
					PM					0.152398689	0.000457196	*0.1524*	*0.0005*		
					PM10					0.072080461	0.000216241	*0.0721*	*0.0003*		
					PM2.5					0.010915041	3.27451E-05	*0.011*	*0.0001*		
					CO2					--	0.001617951	0	*0.0017*		
					CH4					--	3.869384111	0	*3.8694*		
					CO2 Equivalent					--	119.4292279	0	*119.4293*		
New/Modified	Yes	FUG-SF6	FUG-SF6	Circuit Breaker Sulfur Hexafluoride (SF6) Fugitives	SF6					--	0.623	0	*0.623*	Fugitives: Piping and Equipment Leak	
					CO2 Equivalent					--	14640.5	0	*14640.5*		

Emission Point Discharge Parameters												
EPN	**Included in EMEW?**	**UTM Coordinates Zone**	**East (meters)**	**North (meters)**	**Building Height (ft)**	**Height Above Ground (ft)**	**Stack Exit Diameter (ft)**	**Velocity (FPS)**	**Temperature (°F)**	**Fugitives - Length (ft)**	**Fugitives - Width (ft)**	**Fugitives - Axis Degrees**
NGFUG	Yes											
NH3FUG	Yes											
CO-1	Yes											
CO-2	Yes											
CO-3	Yes											
CO-4	Yes											
CO-5	Yes											
CO-6	Yes											
CO-7	Yes											
CO-8	Yes											
CO-9	Yes											
CO-10	Yes											
CO-11	Yes											
CO-12	Yes											
CO-13	Yes											
CO-14	Yes											
CO-15	Yes											
CO-16	Yes											
CO-17	Yes											
CO-18	Yes											
CO-19	Yes											
CT-1A	Yes											
CT-2A	Yes											
CT-3A	Yes											
CT-4A	Yes											
CT-5A	Yes											
CT-6A	Yes											
CT-7A	Yes											
CT-8A	Yes											
CT-9A	Yes											
CT-10A	Yes											
CT-11A	Yes											
CT-12A	Yes											
CT-13A	Yes											
CT-14A	Yes											
CT-15A	Yes											
CT-16A	Yes											
CT-17A	Yes											
CT-18A	Yes											
CT-19A	Yes											
CT-20A	Yes											
CT-21A	Yes											
CT-1B	Yes											

EPN	Included in EMEW?	UTM Coordinates Zone	East (meters)	North (meters)	Building Height (ft)	Height Above Ground (ft)	Stack Exit Diameter (ft)	Velocity (FPS)	Temperature (°F)	Fugitives - Length (ft)	Fugitives - Width (ft)	Fugitives - Axis Degrees
CT-2B	Yes											
CT-3B	Yes											
CT-4B	Yes											
CT-5B	Yes											
CT-6B	Yes											
CT-7B	Yes											
CT-8B	Yes											
CT-9B	Yes											
CT-10B	Yes											
CT-11B	Yes											
CT-12B	Yes											
CT-13B	Yes											
CT-14B	Yes											
DPHEAT1	Yes											
DPHEAT2	Yes											
DPHEAT3	Yes											
DPHEAT4	Yes											
DPHEAT5	Yes											
DPHEAT6	Yes											
DPHEAT7	Yes											
DPHEAT8	Yes											
DPHEAT9	Yes											
DPHEAT10	Yes											
DPHEAT11	Yes											
DPHEAT12	Yes											
DPHEAT13	Yes											
DPHEAT14	Yes											
DPHEAT15	Yes											
DPHEAT16	Yes											
DPHEAT17	Yes											
DPHEAT18	Yes											
DPHEAT19	Yes											
OILVENT1	Yes											
OILVENT2	Yes											
OILVENT3	Yes											
OILVENT4	Yes											
OILVENT5	Yes											
OILVENT6	Yes											
OILVENT7	Yes											
OILVENT8	Yes											
OILVENT9	Yes											
OILVENT10	Yes											
OILVENT11	Yes											
OILVENT12	Yes											

EPN	Included in EMEW?	UTM Coordinates Zone	East (meters)	North (meters)	Building Height (ft)	Height Above Ground (ft)	Stack Exit Diameter (ft)	Velocity (FPS)	Temperature (°F)	Fugitives - Length (ft)	Fugitives - Width (ft)	Fugitives - Axis Degrees
OILVENT13	Yes											
OILVENT14	Yes											
OILVENT15	Yes											
OILVENT16	Yes											
OILVENT17	Yes											
OILVENT18	Yes											
OILVENT19	Yes											
OILVENT20	Yes											
OILVENT21	Yes											
OILVENT22	Yes											
OILVENT23	Yes											
OILVENT24	Yes											
OILVENT25	Yes											
OILVENT26	Yes											
OILVENT27	Yes											
OILVENT28	Yes											
OILVENT29	Yes											
OILVENT30	Yes											
OILVENT31	Yes											
OILVENT32	Yes											
OILVENT33	Yes											
OILVENT34	Yes											
OILVENT35	Yes											
TNK-DSL1	Yes											
TNK-DSL2	Yes											
TNK-DSL3	Yes											
TNK-DSL4	Yes											
TNK-DSL5	Yes											
TNK-DSL6	Yes											
TNK-DSL7	Yes											
FPUMP1	Yes											
FPUMP2	Yes											
EGEN1	Yes											
EGEN2	Yes											
EGEN3	Yes											
EGEN4	Yes											
EGEN5	Yes											
EGEN6	Yes											
EGEN7	Yes											
EGEN8	Yes											
EGEN9	Yes											
EGEN10	Yes											
EGEN11	Yes											
EGEN12	Yes											

EPN	Included in EMEW?	UTM Coordinates Zone	East (meters)	North (meters)	Building Height (ft)	Height Above Ground (ft)	Stack Exit Diameter (ft)	Velocity (FPS)	Temperature (°F)	Fugitives - Length (ft)	Fugitives - Width (ft)	Fugitives - Axis Degrees
EGEN13	Yes											
EGEN14	Yes											
EGEN15	Yes											
ENGINE-1	Yes											
ENGINE-2	Yes											
MSSFUG	Yes											
FUG-SF6	Yes											

I. Public Notice Applicability

A. Project Increases and Public Notice Thresholds

Pollutant			Proposed Long-Term (tpy)			
VOC			837.99			
PM			998.82			
PM_{10}			995.03			
$PM_{2.5}$			991.26			
NO_x			2830.28			
CO			5955.12			
SO_2			397.70			
Pb			0.00			
H2S			0.00			
CO2			33162721.21			
CH4			655.26			
CO2 Equivalent			33212284.72			
NH3			1924.77			
H2SO4			60.66			
N2O			62.51			
SF6			0.62			

* Notice is required for PM, PM10, and PM2.5 if one of these pollutants is above the threshold.

** Notice of a GHG action is determined by action type. Initial and major modification always require notice. Voluntary updates require a consolidated notice if there is a change to BACT. Project emission increases of CO2e (CO2 equivalent) are not relevant for determining public notice of GHG permit actions.

B. Application Type

To help determine whether public notice is required, answer the following questions.

Question	Response	Notes
Are any HAPs to be authorized/re-authorized with this project?	Yes	The category "HAPs" must be specifically listed in the public notice if the project authorizes (reauthorizes for renewals) any HAP pollutants.

C. Applicability Determination

Read the determination and provide a discussion if you disagree with the results or the table above.

Requested information	Response	Notes
Is public notice required for this project as represented in this PI-1?	**Yes**	Public notice applicability for this project may change throughout the technical review.

II. Public Notice Information

Complete this section to provide critical administrative information for the public notice process.

A. Contact Information

1. Enter the contact information for the person responsible for publishing. This representative is responsible for ensuring public notice is properly published in the appropriate newspaper and signs are posted at the facility site. The TCEQ will contact this person directly when it is time to authorize the public notice for the application.
2. Enter the contact information for the Technical Contact. This representative will be listed in the public notice as a contact for additional information.

Requested information	Person Responsible for Publishing	Technical Contact
Prefix (Mr., Ms., Dr., etc.):	Mr.	Ms.
First Name:	Constantyn	Elizabeth
Last Name:	Giekes	Stanko
Title:	Vice President	Director, Energy Transition Project
Company Name:	Pacifico Energy	TRC Companies
Mailing Address:	30900 Rancho Vejo Rd. Ste. 230	11767 Katy Fwy Suite 230
Address Line 2:		
City:	San Juan Capistrano	Houston
State:	California	Texas
ZIP Code:	92675	77079
Telephone Number:	949-481-8200	713-244-1039
Fax Number:		
Email Address:	constantyn@pacificoenergy.com	Estanko@trccompanies.com

B. Public place

Place a hard copy of the full application (including the entire completed PI-1 and all attachments) at a public place in the county where the facilities are or will be located. You must state where in the county the application will be available for public review and comment. The location must be a public place and described in the notice. A public place is a location which is owned and operated by public funds (such as libraries, county courthouses, city halls) and cannot be a commercial enterprise. You are required to pre-arrange this availability with the public place indicated below. The application must remain available from the first day of publication through the designated comment period.

If this is an application for a PSD, nonattainment, or FCAA § 112(g) permit, the public place must have internet access available for the public as required in 30 TAC § 39.411(f)(3).

If the application is submitted to the agency with information marked as Confidential, you are required to indicate which specific portions of the application are not being made available to the public. These portions of the application must be accompanied with the following statement: **"Any request for portions of this application that are marked as confidential must be submitted in writing, pursuant to the Public Information Act, to the TCEQ Public Information Coordinator, MC 197, P.O. Box 13087, Austin, Texas 78711-3087."**

Requested information	Response
Name of Public Place:	Fort Stockton Public Library
Physical Address:	500 N Water St
Address Line 2:	
City:	Fort Stockton
ZIP Code:	79735
County:	Pecos
Has the public place granted authorization to place the application for public viewing and copying?	Yes
Does the public place have Internet access available for the public?	Yes

C. Alternate Language Publication
In some cases, public notice in an alternate language is required. If an elementary or middle school nearest to the facility is in a school district required by the Texas Education Code to have a bilingual program, a bilingual notice will be required. If there is no bilingual program required in the school nearest the facility, but children who would normally attend those schools are eligible to attend bilingual programs elsewhere in the school district, the bilingual notice will also be required. If it is determined that alternate language notice is required, you are responsible for ensuring that the publication in the alternate language is complete and accurate in that language.

Question	Response
Is a bilingual program required by the Texas Education Code in the School District?	Yes
Are the children who attend either the elementary school or the middle school closest to your facility eligible to be enrolled in a bilingual program provided by the district?	Yes
If yes to either question above, list **all languages** required by the bilingual program.	Spanish

III. Public Notice Information for PSD and Nonattainment Permits

A. How will public notice be published for the GHG PSD permit? Select either "Separate" or "Combined". Note: separate public notices require separate applications.	Combined

B. Contact Information
We must notify the applicable county judge, presiding officer, and regional council of government when a PSD or Nonattainment permit or modification application is received.

1. Provide the information for the County Judge for the location where the facility is or will be located.
2. Provide the information for the Presiding Officer(s) of the municipality for this facility site. This is frequently the Mayor.
3. Provide the information for the Regional Council of Government.

This information can be obtained at the links below.
https://www.txdirectory.com
https://txregionalcouncil.org/regional-councils/

Requested information	County Judge	Presiding Officer	Regional Council of Government
The Honorable:	Joe Shuster	n/a	n/a
First Name:	n/a	N/a	n/a
Last Name:	n/a	N/a	n/a
Title:	n/a	N/a	n/a
Council of Government Name:	n/a	n/a	Permian Basin Regional Planning
Mailing Address:	103 W Callaghan St	N/a	PO Box 60660
Address Line 2:		N/a	
City:	Fort Wayne	N/a	Midland
State:	Texas	N/a	Texas
ZIP Code:	79735	N/a	79711

C. Affected States and Class I Areas
A map of all Class I areas can be found at the link below:
https://www.nps.gov/subjects/air/class1.htm

Are there any affected states or Class I areas are within 100 km of the proposed facilities?
No

IV. Small Business Classification	
Complete this section to determine small business classification. If a small business requests a permit, agency rules (30 TAC § 39.603(f)(1)(A)) allow for alternative public notification requirements if all of the following criteria are met. If these requirements are met, public notice does not have to include publication of the prominent (12 square inch) newspaper notice.	
Question	**Response**
Does the company (including parent companies and subsidiary companies) have fewer than 100 employees or less than $6 million in annual gross receipts?	No
Small business classification:	**No**

V. Plain Language Summary	
Applications deemed administratively complete on or after May 1, 2022 must provide a plain language summary of the application to be posted on the TCEQ website. Templates can be found at the link below. https://www.tceq.texas.gov/permitting/air/guidance/newsourcereview/nsrapp-tools.html	
Question	**Response**
Is a Plain Language Summary as required by 30 TAC § 39.405(k) provided with the application?	Yes
Is a Plain Language Summary in an alternative language as required by 30 TAC § 39.426(c) provided with the application?	Yes

I. General Information	
A. Does this project require multiple federal applicability analyses that cannot be combined into one?	No
B. Is a retrospective federal applicability analysis required for this project?	No

II. Nonattainment NSR Applicability Summary	
Step 1: Determine if the site is in a nonattainment area for any criteria pollutant(s) or precursor(s).	
County (selected in General sheet section IV):	Pecos
Current nonattainment designation:	This project will be located in an area currently designated attainment or unclassified for all criteria pollutants and precursors.
Should the project be reviewed under a different nonattainment designation? If yes, select the correct reason.	No - use current designation
Step 1 Determination: This project will be located in an area designated attainment or unclassified for all criteria pollutants or precursors. Nonattainment NSR is not required.	

IV. PSD Applicability Summary	
Step 1: Determine if the project is a named source.	
Select the source type that most closely matches the facility in this application. If no source type applies, select "Other/Not Listed". Note: This list is based on 40 CFR § 51.166(b)(1)(i)(a).	Other/Not Listed
Provide a short description of the facility, limited to 300 characters.	Simple cycle natural gas turbines used to generate electric power, along with ancillary equipment.
Step 1 Determination: This is not a named source, and the PSD major source threshold is 250 tpy of any one pollutant. Do not include fugitive emissions in the current sitewide PTE, unless this is a stationary source category which, as of August 7, 1980, is being regulated under NSPS or NESHAP.	

Step 2: Determine if the site is currently major by comparing the current sitewide PTE to the major source threshold. Read the step 1 determination above for information about including or excluding fugitive emissions in the PTE calculation.

Pollutant	Current Sitewide PTE (tpy) enter ">" to indicate the site is major for PSD	Major Source Threshold (tpy)	Current Sitewide PTE ≥ Major Source Threshold?
CO	0	250	No
NOx	0	250	No
PM	0	250	No
PM10	0	250	No
PM2.5	0	250	No
SO2	0	250	No
Ozone (as VOC)	0	250	No
Ozone (as NOx)	0	250	No
Pb	0	250	No
H2S	0	250	No
TRS	0	250	No
Reduced sulfur compounds (including H2S)	0	250	No
H2SO4	0	250	No
Fluoride (excluding HF)	0	250	No

Step 2 Determination: The current sitewide PTE for each regulated pollutant is below the associated major source threshold. The site is currently a minor source. If there are sources at the site other than those in the Unit Types - Emission Rates sheet, remember to attach a list of authorization numbers, FINs, EPNs, and PTEs. Continue to the next step.

Step 3: Determine if the project emissions increase is a major source by itself. Compare the project emissions increase of each pollutant to the associated major source threshold. Include fugitive emissions in the project emissions increase calculation if this is a named source.

Pollutant	Project Emissions Increase (tpy)	Major Source Threshold (tpy)	Increase ≥ Threshold?
CO	5955.12	250	Yes
NOx	2830.28	250	Yes
PM	998.82	250	Yes
PM10	995.03	250	Yes
PM2.5	991.26	250	Yes
SO2	397.7	250	Yes
Ozone (as VOC)	837.99	250	Yes
Ozone (as NOx)	2830.28	250	Yes
Pb		250	No
H2S		250	No
TRS		250	No
Reduced sulfur compounds (including H2S)		250	No
H2SO4	60.66	250	No
Fluoride (excluding HF)		250	No

Step 3 Determination: The project emissions increase of at least one regulated pollutant is at or above the major source threshold. PSD review is required for these pollutants, unless it already underwent nonattainment NSR applicability review. Evaluate the remaining pollutants in the next step. Remember to attach Table 2F for each criteria pollutant or precursor to demonstrate how the increase was calculated.

Step 4: Determine if the project emissions increase of the remaining regulated criteria and non-criteria pollutants is a major modification. Compare the project emissions increase for each remaining regulated pollutant to the associated significant level. Include fugitive emissions in the project emissions increase calculation if this is a named source.

Pollutant	Project Emissions Increase (tpy)	Significant Level (tpy)	Increase ≥ Threshold?
Pb		0.6	No
H2S		10	No
TRS		10	No
Reduced sulfur compounds (including H2S)		10	No
H2SO4	60.66	7	Yes
Fluoride (excluding HF)		3	No

Step 4 Determination: The project emissions increase is at or above the associated significant level for at least one remaining regulated pollutant. PSD review is required for these pollutants in addition to the pollutants identified in step 3. Remember to attach Table 3F for each pollutant to demonstrate how the increase was calculated. Also attach Table 4F to verify creditable reductions.

V. GHG PSD Applicability Summary

Step 1: Determine whether the project requires PSD permitting for a non-GHG regulated pollutant.

Step 1 Determination: At least one other regulated pollutant requires PSD permitting.

Step 2: Determine whether this is an existing or a new major stationary source for PSD.

Step 2 Determination: This is a new major stationary source for PSD.

Step 3: Determine whether the CO2e PTE equals or exceeds the major source threshold. Compare the CO2e PTE to the major source threshold. Include fugitive emissions in the project emission increase calculation if this is a named source.

Pollutant	Potential to Emit (tpy)	Threshold (tpy)	Increase ≥ Threshold?
CO2e	33,212,284.72	75,000	Yes

Step 3 Determination: The CO2e PTE is 75,000 tpy or more. GHG permitting is required. Remember to attach Table 2F for each pollutant to demonstrate how the increase was calculated.

VI. Federal Applicability Summary - Additional case-by-case analysis may be required.

Nonattainment:	Nonattainment NSR is not required.
PSD: (expand row height if needed)	PSD review is required for the following pollutants: Ozone (as VOC), Ozone (as NOx), NOx, SO2, CO, PM, PM10, PM2.5, H2SO4.
GHG PSD:	GHG PSD is required.

I. Expedited Permitting Request	
Are you requesting to expedite this project?	Yes
Is this request being made at the time of initial application submittal, as opposed to part way through the project?	Yes
Surcharge amount due:	$20,000
Must request expedited processing and pay the surcharge when submitting the ePermit application through STEERS.	

II. General Information - Non-Renewal	
Is this project for new facilities controlled and operated directly by the federal government? (30 TAC § 116.141(b)(1) and 30 TAC § 116.163(a))	No
A fee of $75,000 shall be required if no estimate of capital project cost is included with the permit application. (30 TAC § 116.141(d)) Select "yes" here to use this option.	Yes
Select Application Type	Major Application

In signing the "General" sheet with this fee worksheet attached, I certify that the total estimated capital cost of the project as defined in 30 TAC § 116.141 is equal to or less than the above figure. I further state that I have read and understand Texas Water Code § 7.179, which defines Criminal Offenses for certain violations, including intentionally or knowingly making, or causing to be made, false material statements or representations.

Your estimated capital cost:	Maximum fee applies.
Permit Application Fee:	**$75,000.00**

VII. Total Permit Fees	
Note: fees can be paid together with one payment or as two separate payments.	
Non-Renewal Fee	$75,000.00
Total	$75,000.00

VIII. Payment Information		
A. Payment One (required)		
Was the fee paid online?		Yes
Enter the fee amount:		$95,000
Enter the check, money order, ePay Voucher, or other transaction number (enter "STEERS" if submitting and paying through STEERS):	STEERS	
Enter the Company name as it appears on the check:		
C. Total Paid		**$95,000.00**

IX. Professional Engineer Seal Requirement	
Is the estimated capital cost of the project above $2 million?	Yes
Is this project subject to an exemption contained in the Texas Engineering Practice Act (TEPA)? (30 TAC § 116.110(f))	No
Is the application required to be submitted under the seal of a Texas licensed P.E.? Note: an electronic PE seal is acceptable.	Yes

Pollutant	Does this pollutant require PSD review?	How will you demonstrate that this project meets all applicable requirements?	Notes	Additional Notes (optional)
Ozone	Yes	Protocol (required for all PSD projects, excluding GHG PSD)	Attach a protocol meeting all requirements listed on the TCEQ website.	
VOC	No	MERA steps 0-2 AND Modeling (screen or refined)	Attach both an "Electronic Modeling Evaluation Workbook" (EMEW) AND a detailed description of which MERA step was met. Include speciated emission rates with the total VOC and/or PM species corresponding to the short-term and long-term differences represented on the Unit Types-Emission Rates sheet.	
H2S	No	Modeling: screen or refined	Attach a completed "Electronic Modeling Evaluation Workbook" (EMEW).	
CO2	Yes	None (GHG-PSD Only)	An air quality analysis for GHGs (i.e., air dispersion modeling, ambient air monitoring, additional impacts, or Class I area impacts) is not required.	
CH4	Yes	None (GHG-PSD Only)	An air quality analysis for GHGs (i.e., air dispersion modeling, ambient air monitoring, additional impacts, or Class I area impacts) is not required.	
CO2 Equivalent	Yes	None (GHG-PSD Only)	An air quality analysis for GHGs (i.e., air dispersion modeling, ambient air monitoring, additional impacts, or Class I area impacts) is not required.	
NH3	No	MERA steps 0-2 AND Modeling (screen or refined)	Attach both an "Electronic Modeling Evaluation Workbook" (EMEW) AND a detailed description of which MERA step was met. Include speciated emission rates with the total VOC and/or PM species corresponding to the short-term and long-term differences represented on the Unit Types-Emission Rates sheet.	
PM	Yes	Protocol (required for all PSD projects, excluding GHG PSD)	Attach a protocol meeting all requirements listed on the TCEQ website.	
PM10	Yes	Protocol (required for all PSD projects, excluding GHG PSD)	Attach a protocol meeting all requirements listed on the TCEQ website.	
PM2.5	Yes	Protocol (required for all PSD projects, excluding GHG PSD)	Attach a protocol meeting all requirements listed on the TCEQ website.	
NOx	Yes	Protocol (required for all PSD projects, excluding GHG PSD)	Attach a protocol meeting all requirements listed on the TCEQ website.	
CO	Yes	Protocol (required for all PSD projects, excluding GHG PSD)	Attach a protocol meeting all requirements listed on the TCEQ website.	
SO2	Yes	Protocol (required for all PSD projects, excluding GHG PSD)	Attach a protocol meeting all requirements listed on the TCEQ website.	
H2SO4	Yes	Protocol (required for all PSD projects, excluding GHG PSD)	Attach a protocol meeting all requirements listed on the TCEQ website.	

Pollutant	Does this pollutant require PSD review?	How will you demonstrate that this project meets all applicable requirements?	Notes	Additional Notes (optional)
N2O	Yes	None (GHG-PSD Only)	An air quality analysis for GHGs (i.e., air dispersion modeling, ambient air monitoring, additional impacts, or Class I area impacts) is not required.	
SF6	Yes	None (GHG-PSD Only)	An air quality analysis for GHGs (i.e., air dispersion modeling, ambient air monitoring, additional impacts, or Class I area impacts) is not required.	

Action Requested	FINs	Unit Type	Pollutant	Current Tier I BACT	Confirm	Additional Notes
New/Modified	NGFUG	Fugitives: Piping and Equipment Leak	VOC	Specify which is applicable: 1. Uncontrolled VOC emissions < 10 tpy: none 2. 10 tpy < uncontrolled VOC emissions < 25 tpy: 28M leak detection and repair program. 75% credit for 28M. 3. Uncontrolled VOC emissions > 25 tpy: 28VHP leak detection and repair program. 97% credit for valves, 85% for pumps and compressors. 4. VOC vp < 0.002 psia: no inspection required, no fugitive emissions expected. For emissions of approved odorous compounds (chlorine, ammonia, hydrogen sulfide, hydrogen cyanide and mercaptans only): AVO inspection twice per shift. Appropriate credit for AVO program.	Yes	Use of proper piping design and installation, and good work practices is proposed as BACT to control VOC fugitive emissions from natural gas piping components. Because the fugitive VOC emissions will be less than 10 tons per year, and in this instance, less than one (1) ton per year, a LDAR program will not result in a significant emission reduction and will not be implemented for BACT purposes.
			H2S	AVO inspection twice per shift. Appropriate credit for AVO program.	Yes	H2S very low concentration, 1/4 grain per 100 scf. As such, AVO program not required. Will use proper piping design and installation and use of good work practices as BACT
			CO2	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Proper piping design and installation and use of good work practices as BACT
			CH4	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Proper piping design and installation and use of good work practices as BACT
			CO2 Equivalent	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Proper piping design and installation and use of good work practices as BACT
			MSS	Same as normal operation BACT requirements.	Yes	Proper piping design and installation and use of good work practices as BACT
New/Modified	NH3FUG	Fugitives: Piping and Equipment Leak	NH3	AVO inspection twice per shift. Appropriate credit for AVO program.	Yes	Will implement an AVO LDAR program for control of fugitive ammonia emissions from the piping and valves in NH3 service. Pacifico will perform daily AVO checks and will maintain records of all AVO inspections and maintenance activities to demonstrate that BACT for fugitive NH3 emissions is achieved.
			MSS	Same as normal operation BACT requirements.	Yes	Will implement a AVO LDAR program.
New/Modified	CO-1	Cooling Tower	PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Drift < 0.001% achieved by drift eliminators	Yes	Units will use drift eliminators to reduce drift loss to no more than 0.001%.
			MSS	Same as normal operation BACT requirements.	Yes	Units will use drift eliminators to reduce drift loss to no more than 0.001%.

Action Requested	FINs	Unit Type	Pollutant	Current Tier I BACT	Confirm	Additional Notes
New/Modified	CO-2	Cooling Tower	PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Drift < 0.001% achieved by drift eliminators	Yes	Units will use drift eliminators to reduce drift loss to no more than 0.001%.
			MSS	Same as normal operation BACT requirements.	Yes	Units will use drift eliminators to reduce drift loss to no more than 0.001%.
New/Modified	CO-3	Cooling Tower	PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Drift < 0.001% achieved by drift eliminators	Yes	Units will use drift eliminators to reduce drift loss to no more than 0.001%.
			MSS	Same as normal operation BACT requirements.	Yes	Units will use drift eliminators to reduce drift loss to no more than 0.001%.
New/Modified	CO-4	Cooling Tower	PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Drift < 0.001% achieved by drift eliminators	Yes	Units will use drift eliminators to reduce drift loss to no more than 0.001%.
			MSS	Same as normal operation BACT requirements.	Yes	Units will use drift eliminators to reduce drift loss to no more than 0.001%.
New/Modified	CO-5	Cooling Tower	PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Drift < 0.001% achieved by drift eliminators	Yes	Units will use drift eliminators to reduce drift loss to no more than 0.001%.
			MSS	Same as normal operation BACT requirements.	Yes	Units will use drift eliminators to reduce drift loss to no more than 0.001%.
New/Modified	CO-6	Cooling Tower	PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Drift < 0.001% achieved by drift eliminators	Yes	Units will use drift eliminators to reduce drift loss to no more than 0.001%.

Action Requested	FINs	Unit Type	Pollutant	Current Tier I BACT	Confirm	Additional Notes
			MSS	Same as normal operation BACT requirements.	Yes	Units will use drift eliminators to reduce drift loss to no more than 0.001%.
New/Modified	CO-7	Cooling Tower	PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Drift < 0.001% achieved by drift eliminators	Yes	Units will use drift eliminators to reduce drift loss to no more than 0.001%.
			MSS	Same as normal operation BACT requirements.	Yes	Units will use drift eliminators to reduce drift loss to no more than 0.001%.
New/Modified	CO-8	Cooling Tower	PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Drift < 0.001% achieved by drift eliminators	Yes	Units will use drift eliminators to reduce drift loss to no more than 0.001%.
			MSS	Same as normal operation BACT requirements.	Yes	Units will use drift eliminators to reduce drift loss to no more than 0.001%.
New/Modified	CO-9	Cooling Tower	PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Drift < 0.001% achieved by drift eliminators	Yes	Units will use drift eliminators to reduce drift loss to no more than 0.001%.
			MSS	Same as normal operation BACT requirements.	Yes	Units will use drift eliminators to reduce drift loss to no more than 0.001%.
New/Modified	CO-10	Cooling Tower	PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Drift < 0.001% achieved by drift eliminators	Yes	Units will use drift eliminators to reduce drift loss to no more than 0.001%.

Action Requested	FINs	Unit Type	Pollutant	Current Tier I BACT	Confirm	Additional Notes
			MSS	Same as normal operation BACT requirements.	Yes	Units will use drift eliminators to reduce drift loss to no more than 0.001%.
New/Modified	CO-11	Cooling Tower	PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Drift < 0.001% achieved by drift eliminators	Yes	Units will use drift eliminators to reduce drift loss to no more than 0.001%.
			MSS	Same as normal operation BACT requirements.	Yes	Units will use drift eliminators to reduce drift loss to no more than 0.001%.
New/Modified	CO-12	Cooling Tower	PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Drift < 0.001% achieved by drift eliminators	Yes	Units will use drift eliminators to reduce drift loss to no more than 0.001%.
			MSS	Same as normal operation BACT requirements.	Yes	Units will use drift eliminators to reduce drift loss to no more than 0.001%.
New/Modified	CO-13	Cooling Tower	PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Drift < 0.001% achieved by drift eliminators	Yes	Units will use drift eliminators to reduce drift loss to no more than 0.001%.
			MSS	Same as normal operation BACT requirements.	Yes	Units will use drift eliminators to reduce drift loss to no more than 0.001%.
New/Modified	CO-14	Cooling Tower	PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Drift < 0.001% achieved by drift eliminators	Yes	Units will use drift eliminators to reduce drift loss to no more than 0.001%.

Action Requested	FINs	Unit Type	Pollutant	Current Tier I BACT	Confirm	Additional Notes
			MSS	Same as normal operation BACT requirements.	Yes	Units will use drift eliminators to reduce drift loss to no more than 0.001%.
New/Modified	CO-15	Cooling Tower	PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Drift < 0.001% achieved by drift eliminators	Yes	Units will use drift eliminators to reduce drift loss to no more than 0.001%.
			MSS	Same as normal operation BACT requirements.	Yes	Units will use drift eliminators to reduce drift loss to no more than 0.001%.
New/Modified	CO-16	Cooling Tower	PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Drift < 0.001% achieved by drift eliminators	Yes	Units will use drift eliminators to reduce drift loss to no more than 0.001%.
			MSS	Same as normal operation BACT requirements.	Yes	Units will use drift eliminators to reduce drift loss to no more than 0.001%.
New/Modified	CO-17	Cooling Tower	PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Drift < 0.001% achieved by drift eliminators	Yes	Units will use drift eliminators to reduce drift loss to no more than 0.001%.
			MSS	Same as normal operation BACT requirements.	Yes	Units will use drift eliminators to reduce drift loss to no more than 0.001%.
New/Modified	CO-18	Cooling Tower	PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Drift < 0.001% achieved by drift eliminators	Yes	Units will use drift eliminators to reduce drift loss to no more than 0.001%.
			MSS	Same as normal operation BACT requirements.	Yes	Units will use drift eliminators to reduce drift loss to no more than 0.001%.

Action Requested	FINs	Unit Type	Pollutant	Current Tier I BACT	Confirm	Additional Notes
New/Modified	CO-19	Cooling Tower	PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Drift < 0.001% achieved by drift eliminators	Yes	Units will use drift eliminators to reduce drift loss to no more than 0.001%.
			MSS	Same as normal operation BACT requirements.	Yes	Units will use drift eliminators to reduce drift loss to no more than 0.001%.
New/Modified	CT-1A	Turbine: Simple Cycle, Natural Gas	VOC	2 ppmvd at 15% O2 achieved through good combustion practices.	Yes	The turbines will utilize good combustion practices and an oxidation catalyst to not exceed 2 ppmvd at 15% O2 on an 3-hr average..
			NOx	5.0 to 9.0 ppmvd at 15% O2, typically achieved with dry low NOX burner, water/steam injection, limiting fuel consumption, or SCR. Specify numeric value and proposed technique.	Yes	The turbines will utilize dry low NOx burners and SCR to not exceed 2.5 ppmvd NOx at 15% O2 on a 3-hour average.
			CO	9-25 ppmvd at 15% O2, typically achieved with good combustion practices and/or oxidation catalyst. Specify numeric value and control technique. A detailed analysis is required if >9 ppmvd is proposed.	Yes	The turbines will utilize good combustion practices to not exceed 5.0 ppmvd at 15% O2 on a 3-hour average.
			NH3	7-10 ppmvd at 15% O, achieved by controlling the ammonia injection system to minimize ammonia slip	Yes	The ammonia injection system will be monitored to minimize NH3 slip to ensure that the emissions will not exceed 5 ppmvd on an annual basis and 10 ppmvd on an 3-hour average.
			SO2	Good combustion practices. Fuel limited to firing pipeline quality natural gas (low sulfur fuel). Sulfur content of fuel will not exceed 2 to 5 grains per 100 scf on an hourly basis and 0.5 to 1 gr/100 scf on an annual basis.	Yes	The pipeline-quality natural gas used to fire the turbines has a maximum sulfur content of 0.5 grains per 100 scf on a 1-hour average. The turbines will utilize good combustion practices
			H2SO4	Good combustion practices. Fuel limited to firing pipeline quality natural gas (low sulfur fuel). Sulfur content of fuel will not exceed 5 grains per 100 scf on an hourly basis and 1 gr/100 scf on an annual basis.	Yes	The pipeline-quality natural gas used to fire the turbines has a maximum sulfur content of 0.5 grains per 100 scf on a 1-hour average. The turbines will utilize good combustion practices
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Good combustion practices. Fuel limited to firing pipeline quality natural gas.	Yes	The turbines will utilize pipeline-quality natural gas and good combustion practices to minimize PM/PM10/PM2.5 formation. Emissions are based on a 1-hour average.
			CO2 Equivalent	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			MSS	Minimizing the duration of MSS activities and operating the facility in accordance with best management practices and good air pollution control practices.	Yes	Will minimize the duration of MSS activities and operate the facility in accordance with best management practices and good air pollution control practices.
New/Modified	CT-2A	Turbine: Simple Cycle, Natural Gas	VOC	2 ppmvd at 15% O2 achieved through good combustion practices.	Yes	The turbines will utilize good combustion practices and an oxidation catalyst to not exceed 2 ppmvd at 15% O2 on an 3-hr average..
			NOx	5.0 to 9.0 ppmvd at 15% O2, typically achieved with dry low NOX burner, water/steam injection, limiting fuel consumption, or SCR. Specify numeric value and proposed technique.	Yes	The turbines will utilize dry low NOx burners and SCR to not exceed 2.5 ppmvd NOx at 15% O2 on a 3-hour average.
			CO	9-25 ppmvd at 15% O2, typically achieved with good combustion practices and/or oxidation catalyst. Specify numeric value and control technique. A detailed analysis is required if >9 ppmvd is proposed.	Yes	The turbines will utilize good combustion practices to not exceed 5.0 ppmvd at 15% O2 on a 3-hour average.
			NH3	7-10 ppmvd at 15% O, achieved by controlling the ammonia injection system to minimize ammonia slip	Yes	The ammonia injection system will be monitored to minimize NH3 slip to ensure that the emissions will not exceed 5 ppmvd on an annual basis and 10 ppmvd on an 3-hour average.
			SO2	Good combustion practices. Fuel limited to firing pipeline quality natural gas (low sulfur fuel). Sulfur content of fuel will not exceed 2 to 5 grains per 100 scf on an hourly basis and 0.5 to 1 gr/100 scf on an annual basis.	Yes	The pipeline-quality natural gas used to fire the turbines has a maximum sulfur content of 0.5 grains per 100 scf on a 1-hour average. The turbines will utilize good combustion practices
			H2SO4	Good combustion practices. Fuel limited to firing pipeline quality natural gas (low sulfur fuel). Sulfur content of fuel will not exceed 5 grains per 100 scf on an hourly basis and 1 gr/100 scf on an annual basis.	Yes	The pipeline-quality natural gas used to fire the turbines has a maximum sulfur content of 0.5 grains per 100 scf on a 1-hour average. The turbines will utilize good combustion practices
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Good combustion practices. Fuel limited to firing pipeline quality natural gas.	Yes	The turbines will utilize pipeline-quality natural gas and good combustion practices to minimize PM/PM10/PM2.5 formation. Emissions are based on a 1-hour average.
			CO2 Equivalent	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.

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			MSS	Minimizing the duration of MSS activities and operating the facility in accordance with best management practices and good air pollution control practices.	Yes	Will minimize the duration of MSS activities and operate the facility in accordance with best management practices and good air pollution control practices.
New/Modified	CT-3A	Turbine: Simple Cycle, Natural Gas	VOC	2 ppmvd at 15% O2 achieved through good combustion practices.	Yes	The turbines will utilize good combustion practices and an oxidation catalyst to not exceed 2 ppmvd at 15% O2 on an 3-hr average..
			NOx	5.0 to 9.0 ppmvd at 15% O2, typically achieved with dry low NOX burner, water/steam injection, limiting fuel consumption, or SCR. Specify numeric value and proposed technique.	Yes	The turbines will utilize dry low NOx burners and SCR to not exceed 2.5 ppmvd NOx at 15% O2 on a 3-hour average.
			CO	9-25 ppmvd at 15% O2, typically achieved with good combustion practices and/or oxidation catalyst. Specify numeric value and control technique. A detailed analysis is required if >9 ppmvd is proposed.	Yes	The turbines will utilize good combustion practices to not exceed 5.0 ppmvd at 15% O2 on a 3-hour average.
			NH3	7-10 ppmvd at 15% O, achieved by controlling the ammonia injection system to minimize ammonia slip	Yes	The ammonia injection system will be monitored to minimize NH3 slip to ensure that the emissions will not exceed 5 ppmvd on an annual basis and 10 ppmvd on an 3-hour average.
			SO2	Good combustion practices. Fuel limited to firing pipeline quality natural gas (low sulfur fuel). Sulfur content of fuel will not exceed 2 to 5 grains per 100 scf on an hourly basis and 0.5 to 1 gr/100 scf on an annual basis.	Yes	The pipeline-quality natural gas used to fire the turbines has a maximum sulfur content of 0.5 grains per 100 scf on a 1-hour average. The turbines will utilize good combustion practices
			H2SO4	Good combustion practices. Fuel limited to firing pipeline quality natural gas (low sulfur fuel). Sulfur content of fuel will not exceed 5 grains per 100 scf on an hourly basis and 1 gr/100 scf on an annual basis.	Yes	The pipeline-quality natural gas used to fire the turbines has a maximum sulfur content of 0.5 grains per 100 scf on a 1-hour average. The turbines will utilize good combustion practices
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Good combustion practices. Fuel limited to firing pipeline quality natural gas.	Yes	The turbines will utilize pipeline-quality natural gas and good combustion practices to minimize PM/PM10/PM2.5 formation. Emissions are based on a 1-hour average.
			CO2 Equivalent	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			MSS	Minimizing the duration of MSS activities and operating the facility in accordance with best management practices and good air pollution control practices.	Yes	Will minimize the duration of MSS activities and operate the facility in accordance with best management practices and good air pollution control practices.
New/Modified	CT-4A	Turbine: Simple Cycle, Natural Gas	VOC	2 ppmvd at 15% O2 achieved through good combustion practices.	Yes	The turbines will utilize good combustion practices and an oxidation catalyst to not exceed 2 ppmvd at 15% O2 on an 3-hr average..
			NOx	5.0 to 9.0 ppmvd at 15% O2, typically achieved with dry low NOX burner, water/steam injection, limiting fuel consumption, or SCR. Specify numeric value and proposed technique.	Yes	The turbines will utilize dry low NOx burners and SCR to not exceed 2.5 ppmvd NOx at 15% O2 on a 3-hour average.
			CO	9-25 ppmvd at 15% O2, typically achieved with good combustion practices and/or oxidation catalyst. Specify numeric value and control technique. A detailed analysis is required if >9 ppmvd is proposed.	Yes	The turbines will utilize good combustion practices to not exceed 5.0 ppmvd at 15% O2 on a 3-hour average.
			NH3	7-10 ppmvd at 15% O, achieved by controlling the ammonia injection system to minimize ammonia slip	Yes	The ammonia injection system will be monitored to minimize NH3 slip to ensure that the emissions will not exceed 5 ppmvd on an annual basis and 10 ppmvd on an 3-hour average.
			SO2	Good combustion practices. Fuel limited to firing pipeline quality natural gas (low sulfur fuel). Sulfur content of fuel will not exceed 2 to 5 grains per 100 scf on an hourly basis and 0.5 to 1 gr/100 scf on an annual basis.	Yes	The pipeline-quality natural gas used to fire the turbines has a maximum sulfur content of 0.5 grains per 100 scf on a 1-hour average. The turbines will utilize good combustion practices
			H2SO4	Good combustion practices. Fuel limited to firing pipeline quality natural gas (low sulfur fuel). Sulfur content of fuel will not exceed 5 grains per 100 scf on an hourly basis and 1 gr/100 scf on an annual basis.	Yes	The pipeline-quality natural gas used to fire the turbines has a maximum sulfur content of 0.5 grains per 100 scf on a 1-hour average. The turbines will utilize good combustion practices
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Good combustion practices. Fuel limited to firing pipeline quality natural gas.	Yes	The turbines will utilize pipeline-quality natural gas and good combustion practices to minimize PM/PM10/PM2.5 formation. Emissions are based on a 1-hour average.
			CO2 Equivalent	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			MSS	Minimizing the duration of MSS activities and operating the facility in accordance with best management practices and good air pollution control practices.	Yes	Will minimize the duration of MSS activities and operate the facility in accordance with best management practices and good air pollution control practices.

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New/Modified	CT-5A	Turbine: Simple Cycle, Natural Gas	VOC	2 ppmvd at 15% O2 achieved through good combustion practices.	Yes	The turbines will utilize good combustion practices and an oxidation catalyst to not exceed 2 ppmvd at 15% O2 on an 3-hr average..
			NOx	5.0 to 9.0 ppmvd at 15% O2, typically achieved with dry low NOX burner, water/steam injection, limiting fuel consumption, or SCR. Specify numeric value and proposed technique.	Yes	The turbines will utilize dry low NOx burners and SCR to not exceed 2.5 ppmvd NOx at 15% O2 on a 3-hour average.
			CO	9-25 ppmvd at 15% O2, typically achieved with good combustion practices and/or oxidation catalyst. Specify numeric value and control technique. A detailed analysis is required if >9 ppmvd is proposed.	Yes	The turbines will utilize good combustion practices to not exceed 5.0 ppmvd at 15% O2 on a 3-hour average.
			NH3	7-10 ppmvd at 15% O, achieved by controlling the ammonia injection system to minimize ammonia slip	Yes	The ammonia injection system will be monitored to minimize NH3 slip to ensure that the emissions will not exceed 5 ppmvd on an annual basis and 10 ppmvd on an 3-hour average.
			SO2	Good combustion practices. Fuel limited to firing pipeline quality natural gas (low sulfur fuel). Sulfur content of fuel will not exceed 2 to 5 grains per 100 scf on an hourly basis and 0.5 to 1 gr/100 scf on an annual basis.	Yes	The pipeline-quality natural gas used to fire the turbines has a maximum sulfur content of 0.5 grains per 100 scf on a 1-hour average. The turbines will utilize good combustion practices
			H2SO4	Good combustion practices. Fuel limited to firing pipeline quality natural gas (low sulfur fuel). Sulfur content of fuel will not exceed 5 grains per 100 scf on an hourly basis and 1 gr/100 scf on an annual basis.	Yes	The pipeline-quality natural gas used to fire the turbines has a maximum sulfur content of 0.5 grains per 100 scf on a 1-hour average. The turbines will utilize good combustion practices
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Good combustion practices. Fuel limited to firing pipeline quality natural gas.	Yes	The turbines will utilize pipeline-quality natural gas and good combustion practices to minimize PM/PM10/PM2.5 formation. Emissions are based on a 1-hour average.
			CO2 Equivalent	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			MSS	Minimizing the duration of MSS activities and operating the facility in accordance with best management practices and good air pollution control practices.	Yes	Will minimize the duration of MSS activities and operate the facility in accordance with best management practices and good air pollution control practices.
New/Modified	CT-6A	Turbine: Simple Cycle, Natural Gas	VOC	2 ppmvd at 15% O2 achieved through good combustion practices.	Yes	The turbines will utilize good combustion practices and an oxidation catalyst to not exceed 2 ppmvd at 15% O2 on an 3-hr average..
			NOx	5.0 to 9.0 ppmvd at 15% O2, typically achieved with dry low NOX burner, water/steam injection, limiting fuel consumption, or SCR. Specify numeric value and proposed technique.	Yes	The turbines will utilize dry low NOx burners and SCR to not exceed 2.5 ppmvd NOx at 15% O2 on a 3-hour average.
			CO	9-25 ppmvd at 15% O2, typically achieved with good combustion practices and/or oxidation catalyst. Specify numeric value and control technique. A detailed analysis is required if >9 ppmvd is proposed.	Yes	The turbines will utilize good combustion practices to not exceed 5.0 ppmvd at 15% O2 on a 3-hour average.
			NH3	7-10 ppmvd at 15% O, achieved by controlling the ammonia injection system to minimize ammonia slip	Yes	The ammonia injection system will be monitored to minimize NH3 slip to ensure that the emissions will not exceed 5 ppmvd on an annual basis and 10 ppmvd on an 3-hour average.
			SO2	Good combustion practices. Fuel limited to firing pipeline quality natural gas (low sulfur fuel). Sulfur content of fuel will not exceed 2 to 5 grains per 100 scf on an hourly basis and 0.5 to 1 gr/100 scf on an annual basis.	Yes	The pipeline-quality natural gas used to fire the turbines has a maximum sulfur content of 0.5 grains per 100 scf on a 1-hour average. The turbines will utilize good combustion practices
			H2SO4	Good combustion practices. Fuel limited to firing pipeline quality natural gas (low sulfur fuel). Sulfur content of fuel will not exceed 5 grains per 100 scf on an hourly basis and 1 gr/100 scf on an annual basis.	Yes	The pipeline-quality natural gas used to fire the turbines has a maximum sulfur content of 0.5 grains per 100 scf on a 1-hour average. The turbines will utilize good combustion practices
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Good combustion practices. Fuel limited to firing pipeline quality natural gas.	Yes	The turbines will utilize pipeline-quality natural gas and good combustion practices to minimize PM/PM10/PM2.5 formation. Emissions are based on a 1-hour average.
			CO2 Equivalent	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			MSS	Minimizing the duration of MSS activities and operating the facility in accordance with best management practices and good air pollution control practices.	Yes	Will minimize the duration of MSS activities and operate the facility in accordance with best management practices and good air pollution control practices.
New/Modified	CT-7A	Turbine: Simple Cycle, Natural Gas	VOC	2 ppmvd at 15% O2 achieved through good combustion practices.	Yes	The turbines will utilize good combustion practices and an oxidation catalyst to not exceed 2 ppmvd at 15% O2 on an 3-hr average..
			NOx	5.0 to 9.0 ppmvd at 15% O2, typically achieved with dry low NOX burner, water/steam injection, limiting fuel consumption, or SCR. Specify numeric value and proposed technique.	Yes	The turbines will utilize dry low NOx burners and SCR to not exceed 2.5 ppmvd NOx at 15% O2 on a 3-hour average.
			CO	9-25 ppmvd at 15% O2, typically achieved with good combustion practices and/or oxidation catalyst. Specify numeric value and control technique. A detailed analysis is required if >9 ppmvd is proposed.	Yes	The turbines will utilize good combustion practices to not exceed 5.0 ppmvd at 15% O2 on a 3-hour average.

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			NH3	7-10 ppmvd at 15% O, achieved by controlling the ammonia injection system to minimize ammonia slip	Yes	The ammonia injection system will be monitored to minimize NH3 slip to ensure that the emissions will not exceed 5 ppmvd on an annual basis and 10 ppmvd on an 3-hour average.
			SO2	Good combustion practices. Fuel limited to firing pipeline quality natural gas (low sulfur fuel). Sulfur content of fuel will not exceed 2 to 5 grains per 100 scf on an hourly basis and 0.5 to 1 gr/100 scf on an annual basis.	Yes	The pipeline-quality natural gas used to fire the turbines has a maximum sulfur content of 0.5 grains per 100 scf on a 1-hour average. The turbines will utilize good combustion practices
			H2SO4	Good combustion practices. Fuel limited to firing pipeline quality natural gas (low sulfur fuel). Sulfur content of fuel will not exceed 5 grains per 100 scf on an hourly basis and 1 gr/100 scf on an annual basis.	Yes	The pipeline-quality natural gas used to fire the turbines has a maximum sulfur content of 0.5 grains per 100 scf on a 1-hour average. The turbines will utilize good combustion practices
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Good combustion practices. Fuel limited to firing pipeline quality natural gas.	Yes	The turbines will utilize pipeline-quality natural gas and good combustion practices to minimize PM/PM10/PM2.5 formation. Emissions are based on a 1-hour average.
			CO2 Equivalent	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			MSS	Minimizing the duration of MSS activities and operating the facility in accordance with best management practices and good air pollution control practices.	Yes	Will minimize the duration of MSS activities and operate the facility in accordance with best management practices and good air pollution control practices.
New/Modified	CT-8A	Turbine: Simple Cycle, Natural Gas	VOC	2 ppmvd at 15% O2 achieved through good combustion practices.	Yes	The turbines will utilize good combustion practices and an oxidation catalyst to not exceed 2 ppmvd at 15% O2 on an 3-hr average..
			NOx	5.0 to 9.0 ppmvd at 15% O2, typically achieved with dry low NOX burner, water/steam injection, limiting fuel consumption, or SCR. Specify numeric value and proposed technique.	Yes	The turbines will utilize dry low NOx burners and SCR to not exceed 2.5 ppmvd NOx at 15% O2 on a 3-hour average.
			CO	9-25 ppmvd at 15% O2, typically achieved with good combustion practices and/or oxidation catalyst. Specify numeric value and control technique. A detailed analysis is required if >9 ppmvd is proposed.	Yes	The turbines will utilize good combustion practices to not exceed 5.0 ppmvd at 15% O2 on a 3-hour average.
			NH3	7-10 ppmvd at 15% O, achieved by controlling the ammonia injection system to minimize ammonia slip	Yes	The ammonia injection system will be monitored to minimize NH3 slip to ensure that the emissions will not exceed 5 ppmvd on an annual basis and 10 ppmvd on an 3-hour average.
			SO2	Good combustion practices. Fuel limited to firing pipeline quality natural gas (low sulfur fuel). Sulfur content of fuel will not exceed 2 to 5 grains per 100 scf on an hourly basis and 0.5 to 1 gr/100 scf on an annual basis.	Yes	The pipeline-quality natural gas used to fire the turbines has a maximum sulfur content of 0.5 grains per 100 scf on a 1-hour average. The turbines will utilize good combustion practices
			H2SO4	Good combustion practices. Fuel limited to firing pipeline quality natural gas (low sulfur fuel). Sulfur content of fuel will not exceed 5 grains per 100 scf on an hourly basis and 1 gr/100 scf on an annual basis.	Yes	The pipeline-quality natural gas used to fire the turbines has a maximum sulfur content of 0.5 grains per 100 scf on a 1-hour average. The turbines will utilize good combustion practices
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Good combustion practices. Fuel limited to firing pipeline quality natural gas.	Yes	The turbines will utilize pipeline-quality natural gas and good combustion practices to minimize PM/PM10/PM2.5 formation. Emissions are based on a 1-hour average.
			CO2 Equivalent	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			MSS	Minimizing the duration of MSS activities and operating the facility in accordance with best management practices and good air pollution control practices.	Yes	Will minimize the duration of MSS activities and operate the facility in accordance with best management practices and good air pollution control practices.
New/Modified	CT-9A	Turbine: Simple Cycle, Natural Gas	VOC	2 ppmvd at 15% O2 achieved through good combustion practices.	Yes	The turbines will utilize good combustion practices and an oxidation catalyst to not exceed 2 ppmvd at 15% O2 on an 3-hr average..
			NOx	5.0 to 9.0 ppmvd at 15% O2, typically achieved with dry low NOX burner, water/steam injection, limiting fuel consumption, or SCR. Specify numeric value and proposed technique.	Yes	The turbines will utilize dry low NOx burners and SCR to not exceed 2.5 ppmvd NOx at 15% O2 on a 3-hour average.
			CO	9-25 ppmvd at 15% O2, typically achieved with good combustion practices and/or oxidation catalyst. Specify numeric value and control technique. A detailed analysis is required if >9 ppmvd is proposed.	Yes	The turbines will utilize good combustion practices to not exceed 5.0 ppmvd at 15% O2 on a 3-hour average.
			NH3	7-10 ppmvd at 15% O, achieved by controlling the ammonia injection system to minimize ammonia slip	Yes	The ammonia injection system will be monitored to minimize NH3 slip to ensure that the emissions will not exceed 5 ppmvd on an annual basis and 10 ppmvd on an 3-hour average.
			SO2	Good combustion practices. Fuel limited to firing pipeline quality natural gas (low sulfur fuel). Sulfur content of fuel will not exceed 2 to 5 grains per 100 scf on an hourly basis and 0.5 to 1 gr/100 scf on an annual basis.	Yes	The pipeline-quality natural gas used to fire the turbines has a maximum sulfur content of 0.5 grains per 100 scf on a 1-hour average. The turbines will utilize good combustion practices

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			H2SO4	Good combustion practices. Fuel limited to firing pipeline quality natural gas (low sulfur fuel). Sulfur content of fuel will not exceed 5 grains per 100 scf on an hourly basis and 1 gr/100 scf on an annual basis.	Yes	The pipeline-quality natural gas used to fire the turbines has a maximum sulfur content of 0.5 grains per 100 scf on a 1-hour average. The turbines will utilize good combustion practices
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Good combustion practices. Fuel limited to firing pipeline quality natural gas.	Yes	The turbines will utilize pipeline-quality natural gas and good combustion practices to minimize PM/PM10/PM2.5 formation. Emissions are based on a 1-hour average.
			CO2 Equivalent	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			MSS	Minimizing the duration of MSS activities and operating the facility in accordance with best management practices and good air pollution control practices.	Yes	Will minimize the duration of MSS activities and operate the facility in accordance with best management practices and good air pollution control practices.
New/Modified	CT-10A	Turbine: Simple Cycle, Natural Gas	VOC	2 ppmvd at 15% O2 achieved through good combustion practices.	Yes	The turbines will utilize good combustion practices and an oxidation catalyst to not exceed 2 ppmvd at 15% O2 on an 3-hr average..
			NOx	5.0 to 9.0 ppmvd at 15% O2, typically achieved with dry low NOX burner, water/steam injection, limiting fuel consumption, or SCR. Specify numeric value and proposed technique.	Yes	The turbines will utilize dry low NOx burners and SCR to not exceed 2.5 ppmvd NOx at 15% O2 on a 3-hour average.
			CO	9-25 ppmvd at 15% O2, typically achieved with good combustion practices and/or oxidation catalyst. Specify numeric value and control technique. A detailed analysis is required if >9 ppmvd is proposed.	Yes	The turbines will utilize good combustion practices to not exceed 5.0 ppmvd at 15% O2 on a 3-hour average.
			NH3	7-10 ppmvd at 15% O, achieved by controlling the ammonia injection system to minimize ammonia slip	Yes	The ammonia injection system will be monitored to minimize NH3 slip to ensure that the emissions will not exceed 5 ppmvd on an annual basis and 10 ppmvd on an 3-hour average.
			SO2	Good combustion practices. Fuel limited to firing pipeline quality natural gas (low sulfur fuel). Sulfur content of fuel will not exceed 2 to 5 grains per 100 scf on an hourly basis and 0.5 to 1 gr/100 scf on an annual basis.	Yes	The pipeline-quality natural gas used to fire the turbines has a maximum sulfur content of 0.5 grains per 100 scf on a 1-hour average. The turbines will utilize good combustion practices
			H2SO4	Good combustion practices. Fuel limited to firing pipeline quality natural gas (low sulfur fuel). Sulfur content of fuel will not exceed 5 grains per 100 scf on an hourly basis and 1 gr/100 scf on an annual basis.	Yes	The pipeline-quality natural gas used to fire the turbines has a maximum sulfur content of 0.5 grains per 100 scf on a 1-hour average. The turbines will utilize good combustion practices
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Good combustion practices. Fuel limited to firing pipeline quality natural gas.	Yes	The turbines will utilize pipeline-quality natural gas and good combustion practices to minimize PM/PM10/PM2.5 formation. Emissions are based on a 1-hour average.
			CO2 Equivalent	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			MSS	Minimizing the duration of MSS activities and operating the facility in accordance with best management practices and good air pollution control practices.	Yes	Will minimize the duration of MSS activities and operate the facility in accordance with best management practices and good air pollution control practices.
New/Modified	CT-11A	Turbine: Simple Cycle, Natural Gas	VOC	2 ppmvd at 15% O2 achieved through good combustion practices.	Yes	The turbines will utilize good combustion practices and an oxidation catalyst to not exceed 2 ppmvd at 15% O2 on an 3-hr average..
			NOx	5.0 to 9.0 ppmvd at 15% O2, typically achieved with dry low NOX burner, water/steam injection, limiting fuel consumption, or SCR. Specify numeric value and proposed technique.	Yes	The turbines will utilize dry low NOx burners and SCR to not exceed 2.5 ppmvd NOx at 15% O2 on a 3-hour average.
			CO	9-25 ppmvd at 15% O2, typically achieved with good combustion practices and/or oxidation catalyst. Specify numeric value and control technique. A detailed analysis is required if >9 ppmvd is proposed.	Yes	The turbines will utilize good combustion practices to not exceed 5.0 ppmvd at 15% O2 on a 3-hour average.
			NH3	7-10 ppmvd at 15% O, achieved by controlling the ammonia injection system to minimize ammonia slip	Yes	The ammonia injection system will be monitored to minimize NH3 slip to ensure that the emissions will not exceed 5 ppmvd on an annual basis and 10 ppmvd on an 3-hour average.
			SO2	Good combustion practices. Fuel limited to firing pipeline quality natural gas (low sulfur fuel). Sulfur content of fuel will not exceed 2 to 5 grains per 100 scf on an hourly basis and 0.5 to 1 gr/100 scf on an annual basis.	Yes	The pipeline-quality natural gas used to fire the turbines has a maximum sulfur content of 0.5 grains per 100 scf on a 1-hour average. The turbines will utilize good combustion practices
			H2SO4	Good combustion practices. Fuel limited to firing pipeline quality natural gas (low sulfur fuel). Sulfur content of fuel will not exceed 5 grains per 100 scf on an hourly basis and 1 gr/100 scf on an annual basis.	Yes	The pipeline-quality natural gas used to fire the turbines has a maximum sulfur content of 0.5 grains per 100 scf on a 1-hour average. The turbines will utilize good combustion practices
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Good combustion practices. Fuel limited to firing pipeline quality natural gas.	Yes	The turbines will utilize pipeline-quality natural gas and good combustion practices to minimize PM/PM10/PM2.5 formation. Emissions are based on a 1-hour average.
			CO2 Equivalent	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.

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			MSS	Minimizing the duration of MSS activities and operating the facility in accordance with best management practices and good air pollution control practices.	Yes	Will minimize the duration of MSS activities and operate the facility in accordance with best management practices and good air pollution control practices.
New/Modified	CT-12A	Turbine: Simple Cycle, Natural Gas	VOC	2 ppmvd at 15% O2 achieved through good combustion practices.	Yes	The turbines will utilize good combustion practices and an oxidation catalyst to not exceed 2 ppmvd at 15% O2 on an 3-hr average..
			NOx	5.0 to 9.0 ppmvd at 15% O2, typically achieved with dry low NOX burner, water/steam injection, limiting fuel consumption, or SCR. Specify numeric value and proposed technique.	Yes	The turbines will utilize dry low NOx burners and SCR to not exceed 2.5 ppmvd NOx at 15% O2 on a 3-hour average.
			CO	9-25 ppmvd at 15% O2, typically achieved with good combustion practices and/or oxidation catalyst. Specify numeric value and control technique. A detailed analysis is required if >9 ppmvd is proposed.	Yes	The turbines will utilize good combustion practices to not exceed 5.0 ppmvd at 15% O2 on a 3-hour average.
			NH3	7-10 ppmvd at 15% O, achieved by controlling the ammonia injection system to minimize ammonia slip	Yes	The ammonia injection system will be monitored to minimize NH3 slip to ensure that the emissions will not exceed 5 ppmvd on an annual basis and 10 ppmvd on an 3-hour average.
			SO2	Good combustion practices. Fuel limited to firing pipeline quality natural gas (low sulfur fuel). Sulfur content of fuel will not exceed 2 to 5 grains per 100 scf on an hourly basis and 0.5 to 1 gr/100 scf on an annual basis.	Yes	The pipeline-quality natural gas used to fire the turbines has a maximum sulfur content of 0.5 grains per 100 scf on a 1-hour average. The turbines will utilize good combustion practices
			H2SO4	Good combustion practices. Fuel limited to firing pipeline quality natural gas (low sulfur fuel). Sulfur content of fuel will not exceed 5 grains per 100 scf on an hourly basis and 1 gr/100 scf on an annual basis.	Yes	The pipeline-quality natural gas used to fire the turbines has a maximum sulfur content of 0.5 grains per 100 scf on a 1-hour average. The turbines will utilize good combustion practices
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Good combustion practices. Fuel limited to firing pipeline quality natural gas.	Yes	The turbines will utilize pipeline-quality natural gas and good combustion practices to minimize PM/PM10/PM2.5 formation. Emissions are based on a 1-hour average.
			CO2 Equivalent	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			MSS	Minimizing the duration of MSS activities and operating the facility in accordance with best management practices and good air pollution control practices.	Yes	Will minimize the duration of MSS activities and operate the facility in accordance with best management practices and good air pollution control practices.
New/Modified	CT-13A	Turbine: Simple Cycle, Natural Gas	VOC	2 ppmvd at 15% O2 achieved through good combustion practices.	Yes	The turbines will utilize good combustion practices and an oxidation catalyst to not exceed 2 ppmvd at 15% O2 on an 3-hr average..
			NOx	5.0 to 9.0 ppmvd at 15% O2, typically achieved with dry low NOX burner, water/steam injection, limiting fuel consumption, or SCR. Specify numeric value and proposed technique.	Yes	The turbines will utilize dry low NOx burners and SCR to not exceed 2.5 ppmvd NOx at 15% O2 on a 3-hour average.
			CO	9-25 ppmvd at 15% O2, typically achieved with good combustion practices and/or oxidation catalyst. Specify numeric value and control technique. A detailed analysis is required if >9 ppmvd is proposed.	Yes	The turbines will utilize good combustion practices to not exceed 5.0 ppmvd at 15% O2 on a 3-hour average.
			NH3	7-10 ppmvd at 15% O, achieved by controlling the ammonia injection system to minimize ammonia slip	Yes	The ammonia injection system will be monitored to minimize NH3 slip to ensure that the emissions will not exceed 5 ppmvd on an annual basis and 10 ppmvd on an 3-hour average.
			SO2	Good combustion practices. Fuel limited to firing pipeline quality natural gas (low sulfur fuel). Sulfur content of fuel will not exceed 2 to 5 grains per 100 scf on an hourly basis and 0.5 to 1 gr/100 scf on an annual basis.	Yes	The pipeline-quality natural gas used to fire the turbines has a maximum sulfur content of 0.5 grains per 100 scf on a 1-hour average. The turbines will utilize good combustion practices
			H2SO4	Good combustion practices. Fuel limited to firing pipeline quality natural gas (low sulfur fuel). Sulfur content of fuel will not exceed 5 grains per 100 scf on an hourly basis and 1 gr/100 scf on an annual basis.	Yes	The pipeline-quality natural gas used to fire the turbines has a maximum sulfur content of 0.5 grains per 100 scf on a 1-hour average. The turbines will utilize good combustion practices
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Good combustion practices. Fuel limited to firing pipeline quality natural gas.	Yes	The turbines will utilize pipeline-quality natural gas and good combustion practices to minimize PM/PM10/PM2.5 formation. Emissions are based on a 1-hour average.
			CO2 Equivalent	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			MSS	Minimizing the duration of MSS activities and operating the facility in accordance with best management practices and good air pollution control practices.	Yes	Will minimize the duration of MSS activities and operate the facility in accordance with best management practices and good air pollution control practices.

Action Requested	FINs	Unit Type	Pollutant	Current Tier I BACT	Confirm	Additional Notes
New/Modified	CT-14A	Turbine: Simple Cycle, Natural Gas	VOC	2 ppmvd at 15% O2 achieved through good combustion practices.	Yes	The turbines will utilize good combustion practices and an oxidation catalyst to not exceed 2 ppmvd at 15% O2 on an 3-hr average..
			NOx	5.0 to 9.0 ppmvd at 15% O2, typically achieved with dry low NOX burner, water/steam injection, limiting fuel consumption, or SCR. Specify numeric value and proposed technique.	Yes	The turbines will utilize dry low NOx burners and SCR to not exceed 2.5 ppmvd NOx at 15% O2 on a 3-hour average.
			CO	9-25 ppmvd at 15% O2, typically achieved with good combustion practices and/or oxidation catalyst. Specify numeric value and control technique. A detailed analysis is required if >9 ppmvd is proposed.	Yes	The turbines will utilize good combustion practices to not exceed 5.0 ppmvd at 15% O2 on a 3-hour average.
			NH3	7-10 ppmvd at 15% O, achieved by controlling the ammonia injection system to minimize ammonia slip	Yes	The ammonia injection system will be monitored to minimize NH3 slip to ensure that the emissions will not exceed 5 ppmvd on an annual basis and 10 ppmvd on an 3-hour average.
			SO2	Good combustion practices. Fuel limited to firing pipeline quality natural gas (low sulfur fuel). Sulfur content of fuel will not exceed 2 to 5 grains per 100 scf on an hourly basis and 0.5 to 1 gr/100 scf on an annual basis.	Yes	The pipeline-quality natural gas used to fire the turbines has a maximum sulfur content of 0.5 grains per 100 scf on a 1-hour average. The turbines will utilize good combustion practices
			H2SO4	Good combustion practices. Fuel limited to firing pipeline quality natural gas (low sulfur fuel). Sulfur content of fuel will not exceed 5 grains per 100 scf on an hourly basis and 1 gr/100 scf on an annual basis.	Yes	The pipeline-quality natural gas used to fire the turbines has a maximum sulfur content of 0.5 grains per 100 scf on a 1-hour average. The turbines will utilize good combustion practices
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Good combustion practices. Fuel limited to firing pipeline quality natural gas.	Yes	The turbines will utilize pipeline-quality natural gas and good combustion practices to minimize PM/PM10/PM2.5 formation. Emissions are based on a 1-hour average.
			CO2 Equivalent	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			MSS	Minimizing the duration of MSS activities and operating the facility in accordance with best management practices and good air pollution control practices.	Yes	Will minimize the duration of MSS activities and operate the facility in accordance with best management practices and good air pollution control practices.
New/Modified	CT-15A	Turbine: Simple Cycle, Natural Gas	VOC	2 ppmvd at 15% O2 achieved through good combustion practices.	Yes	The turbines will utilize good combustion practices and an oxidation catalyst to not exceed 2 ppmvd at 15% O2 on an 3-hr average..
			NOx	5.0 to 9.0 ppmvd at 15% O2, typically achieved with dry low NOX burner, water/steam injection, limiting fuel consumption, or SCR. Specify numeric value and proposed technique.	Yes	The turbines will utilize dry low NOx burners and SCR to not exceed 2.5 ppmvd NOx at 15% O2 on a 3-hour average.
			CO	9-25 ppmvd at 15% O2, typically achieved with good combustion practices and/or oxidation catalyst. Specify numeric value and control technique. A detailed analysis is required if >9 ppmvd is proposed.	Yes	The turbines will utilize good combustion practices to not exceed 5.0 ppmvd at 15% O2 on a 3-hour average.
			NH3	7-10 ppmvd at 15% O, achieved by controlling the ammonia injection system to minimize ammonia slip	Yes	The ammonia injection system will be monitored to minimize NH3 slip to ensure that the emissions will not exceed 5 ppmvd on an annual basis and 10 ppmvd on an 3-hour average.
			SO2	Good combustion practices. Fuel limited to firing pipeline quality natural gas (low sulfur fuel). Sulfur content of fuel will not exceed 2 to 5 grains per 100 scf on an hourly basis and 0.5 to 1 gr/100 scf on an annual basis.	Yes	The pipeline-quality natural gas used to fire the turbines has a maximum sulfur content of 0.5 grains per 100 scf on a 1-hour average. The turbines will utilize good combustion practices
			H2SO4	Good combustion practices. Fuel limited to firing pipeline quality natural gas (low sulfur fuel). Sulfur content of fuel will not exceed 5 grains per 100 scf on an hourly basis and 1 gr/100 scf on an annual basis.	Yes	The pipeline-quality natural gas used to fire the turbines has a maximum sulfur content of 0.5 grains per 100 scf on a 1-hour average. The turbines will utilize good combustion practices
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Good combustion practices. Fuel limited to firing pipeline quality natural gas.	Yes	The turbines will utilize pipeline-quality natural gas and good combustion practices to minimize PM/PM10/PM2.5 formation. Emissions are based on a 1-hour average.
			CO2 Equivalent	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			MSS	Minimizing the duration of MSS activities and operating the facility in accordance with best management practices and good air pollution control practices.	Yes	Will minimize the duration of MSS activities and operate the facility in accordance with best management practices and good air pollution control practices.
New/Modified	CT-16A	Turbine: Simple Cycle, Natural Gas	VOC	2 ppmvd at 15% O2 achieved through good combustion practices.	Yes	The turbines will utilize good combustion practices and an oxidation catalyst to not exceed 2 ppmvd at 15% O2 on an 3-hr average..
			NOx	5.0 to 9.0 ppmvd at 15% O2, typically achieved with dry low NOX burner, water/steam injection, limiting fuel consumption, or SCR. Specify numeric value and proposed technique.	Yes	The turbines will utilize dry low NOx burners and SCR to not exceed 2.5 ppmvd NOx at 15% O2 on a 3-hour average.
			CO	9-25 ppmvd at 15% O2, typically achieved with good combustion practices and/or oxidation catalyst. Specify numeric value and control technique. A detailed analysis is required if >9 ppmvd is proposed.	Yes	The turbines will utilize good combustion practices to not exceed 5.0 ppmvd at 15% O2 on a 3-hour average.

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			NH3	7-10 ppmvd at 15% O, achieved by controlling the ammonia injection system to minimize ammonia slip	Yes	The ammonia injection system will be monitored to minimize NH3 slip to ensure that the emissions will not exceed 5 ppmvd on an annual basis and 10 ppmvd on an 3-hour average.
			SO2	Good combustion practices. Fuel limited to firing pipeline quality natural gas (low sulfur fuel). Sulfur content of fuel will not exceed 2 to 5 grains per 100 scf on an hourly basis and 0.5 to 1 gr/100 scf on an annual basis.	Yes	The pipeline-quality natural gas used to fire the turbines has a maximum sulfur content of 0.5 grains per 100 scf on a 1-hour average. The turbines will utilize good combustion practices
			H2SO4	Good combustion practices. Fuel limited to firing pipeline quality natural gas (low sulfur fuel). Sulfur content of fuel will not exceed 5 grains per 100 scf on an hourly basis and 1 gr/100 scf on an annual basis.	Yes	The pipeline-quality natural gas used to fire the turbines has a maximum sulfur content of 0.5 grains per 100 scf on a 1-hour average. The turbines will utilize good combustion practices
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Good combustion practices. Fuel limited to firing pipeline quality natural gas.	Yes	The turbines will utilize pipeline-quality natural gas and good combustion practices to minimize PM/PM10/PM2.5 formation. Emissions are based on a 1-hour average.
			CO2 Equivalent	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			MSS	Minimizing the duration of MSS activities and operating the facility in accordance with best management practices and good air pollution control practices.	Yes	Will minimize the duration of MSS activities and operate the facility in accordance with best management practices and good air pollution control practices.
New/Modified	CT-17A	Turbine: Simple Cycle, Natural Gas	VOC	2 ppmvd at 15% O2 achieved through good combustion practices.	Yes	The turbines will utilize good combustion practices and an oxidation catalyst to not exceed 2 ppmvd at 15% O2 on an 3-hr average..
			NOx	5.0 to 9.0 ppmvd at 15% O2, typically achieved with dry low NOX burner, water/steam injection, limiting fuel consumption, or SCR. Specify numeric value and proposed technique.	Yes	The turbines will utilize dry low NOx burners and SCR to not exceed 2.5 ppmvd NOx at 15% O2 on a 3-hour average.
			CO	9-25 ppmvd at 15% O2, typically achieved with good combustion practices and/or oxidation catalyst. Specify numeric value and control technique. A detailed analysis is required if >9 ppmvd is proposed.	Yes	The turbines will utilize good combustion practices to not exceed 5.0 ppmvd at 15% O2 on a 3-hour average.
			NH3	7-10 ppmvd at 15% O, achieved by controlling the ammonia injection system to minimize ammonia slip	Yes	The ammonia injection system will be monitored to minimize NH3 slip to ensure that the emissions will not exceed 5 ppmvd on an annual basis and 10 ppmvd on an 3-hour average.
			SO2	Good combustion practices. Fuel limited to firing pipeline quality natural gas (low sulfur fuel). Sulfur content of fuel will not exceed 2 to 5 grains per 100 scf on an hourly basis and 0.5 to 1 gr/100 scf on an annual basis.	Yes	The pipeline-quality natural gas used to fire the turbines has a maximum sulfur content of 0.5 grains per 100 scf on a 1-hour average. The turbines will utilize good combustion practices
			H2SO4	Good combustion practices. Fuel limited to firing pipeline quality natural gas (low sulfur fuel). Sulfur content of fuel will not exceed 5 grains per 100 scf on an hourly basis and 1 gr/100 scf on an annual basis.	Yes	The pipeline-quality natural gas used to fire the turbines has a maximum sulfur content of 0.5 grains per 100 scf on a 1-hour average. The turbines will utilize good combustion practices
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Good combustion practices. Fuel limited to firing pipeline quality natural gas.	Yes	The turbines will utilize pipeline-quality natural gas and good combustion practices to minimize PM/PM10/PM2.5 formation. Emissions are based on a 1-hour average.
			CO2 Equivalent	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			MSS	Minimizing the duration of MSS activities and operating the facility in accordance with best management practices and good air pollution control practices.	Yes	Will minimize the duration of MSS activities and operate the facility in accordance with best management practices and good air pollution control practices.
New/Modified	CT-18A	Turbine: Simple Cycle, Natural Gas	VOC	2 ppmvd at 15% O2 achieved through good combustion practices.	Yes	The turbines will utilize good combustion practices and an oxidation catalyst to not exceed 2 ppmvd at 15% O2 on an 3-hr average..
			NOx	5.0 to 9.0 ppmvd at 15% O2, typically achieved with dry low NOX burner, water/steam injection, limiting fuel consumption, or SCR. Specify numeric value and proposed technique.	Yes	The turbines will utilize dry low NOx burners and SCR to not exceed 2.5 ppmvd NOx at 15% O2 on a 3-hour average.
			CO	9-25 ppmvd at 15% O2, typically achieved with good combustion practices and/or oxidation catalyst. Specify numeric value and control technique. A detailed analysis is required if >9 ppmvd is proposed.	Yes	The turbines will utilize good combustion practices to not exceed 5.0 ppmvd at 15% O2 on a 3-hour average.
			NH3	7-10 ppmvd at 15% O, achieved by controlling the ammonia injection system to minimize ammonia slip	Yes	The ammonia injection system will be monitored to minimize NH3 slip to ensure that the emissions will not exceed 5 ppmvd on an annual basis and 10 ppmvd on an 3-hour average.
			SO2	Good combustion practices. Fuel limited to firing pipeline quality natural gas (low sulfur fuel). Sulfur content of fuel will not exceed 2 to 5 grains per 100 scf on an hourly basis and 0.5 to 1 gr/100 scf on an annual basis.	Yes	The pipeline-quality natural gas used to fire the turbines has a maximum sulfur content of 0.5 grains per 100 scf on a 1-hour average. The turbines will utilize good combustion practices

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			H2SO4	Good combustion practices. Fuel limited to firing pipeline quality natural gas (low sulfur fuel). Sulfur content of fuel will not exceed 5 grains per 100 scf on an hourly basis and 1 gr/100 scf on an annual basis.	Yes	The pipeline-quality natural gas used to fire the turbines has a maximum sulfur content of 0.5 grains per 100 scf on a 1-hour average. The turbines will utilize good combustion practices
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Good combustion practices. Fuel limited to firing pipeline quality natural gas.	Yes	The turbines will utilize pipeline-quality natural gas and good combustion practices to minimize PM/PM10/PM2.5 formation. Emissions are based on a 1-hour average.
			CO2 Equivalent	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			MSS	Minimizing the duration of MSS activities and operating the facility in accordance with best management practices and good air pollution control practices.	Yes	Will minimize the duration of MSS activities and operate the facility in accordance with best management practices and good air pollution control practices.
New/Modified	CT-19A	Turbine: Simple Cycle, Natural Gas	VOC	2 ppmvd at 15% O2 achieved through good combustion practices.	Yes	The turbines will utilize good combustion practices and an oxidation catalyst to not exceed 2 ppmvd at 15% O2 on an 3-hr average..
			NOx	5.0 to 9.0 ppmvd at 15% O2, typically achieved with dry low NOX burner, water/steam injection, limiting fuel consumption, or SCR. Specify numeric value and proposed technique.	Yes	The turbines will utilize dry low NOx burners and SCR to not exceed 2.5 ppmvd NOx at 15% O2 on a 3-hour average.
			CO	9-25 ppmvd at 15% O2, typically achieved with good combustion practices and/or oxidation catalyst. Specify numeric value and control technique. A detailed analysis is required if >9 ppmvd is proposed.	Yes	The turbines will utilize good combustion practices to not exceed 5.0 ppmvd at 15% O2 on a 3-hour average.
			NH3	7-10 ppmvd at 15% O, achieved by controlling the ammonia injection system to minimize ammonia slip	Yes	The ammonia injection system will be monitored to minimize NH3 slip to ensure that the emissions will not exceed 5 ppmvd on an annual basis and 10 ppmvd on an 3-hour average.
			SO2	Good combustion practices. Fuel limited to firing pipeline quality natural gas (low sulfur fuel). Sulfur content of fuel will not exceed 2 to 5 grains per 100 scf on an hourly basis and 0.5 to 1 gr/100 scf on an annual basis.	Yes	The pipeline-quality natural gas used to fire the turbines has a maximum sulfur content of 0.5 grains per 100 scf on a 1-hour average. The turbines will utilize good combustion practices
			H2SO4	Good combustion practices. Fuel limited to firing pipeline quality natural gas (low sulfur fuel). Sulfur content of fuel will not exceed 5 grains per 100 scf on an hourly basis and 1 gr/100 scf on an annual basis.	Yes	The pipeline-quality natural gas used to fire the turbines has a maximum sulfur content of 0.5 grains per 100 scf on a 1-hour average. The turbines will utilize good combustion practices
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Good combustion practices. Fuel limited to firing pipeline quality natural gas.	Yes	The turbines will utilize pipeline-quality natural gas and good combustion practices to minimize PM/PM10/PM2.5 formation. Emissions are based on a 1-hour average.
			CO2 Equivalent	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			MSS	Minimizing the duration of MSS activities and operating the facility in accordance with best management practices and good air pollution control practices.	Yes	Will minimize the duration of MSS activities and operate the facility in accordance with best management practices and good air pollution control practices.
New/Modified	CT-20A	Turbine: Simple Cycle, Natural Gas	VOC	2 ppmvd at 15% O2 achieved through good combustion practices.	Yes	The turbines will utilize good combustion practices and an oxidation catalyst to not exceed 2 ppmvd at 15% O2 on an 3-hr average..
			NOx	5.0 to 9.0 ppmvd at 15% O2, typically achieved with dry low NOX burner, water/steam injection, limiting fuel consumption, or SCR. Specify numeric value and proposed technique.	Yes	The turbines will utilize dry low NOx burners and SCR to not exceed 2.5 ppmvd NOx at 15% O2 on a 3-hour average.
			CO	9-25 ppmvd at 15% O2, typically achieved with good combustion practices and/or oxidation catalyst. Specify numeric value and control technique. A detailed analysis is required if >9 ppmvd is proposed.	Yes	The turbines will utilize good combustion practices to not exceed 5.0 ppmvd at 15% O2 on a 3-hour average.
			NH3	7-10 ppmvd at 15% O, achieved by controlling the ammonia injection system to minimize ammonia slip	Yes	The ammonia injection system will be monitored to minimize NH3 slip to ensure that the emissions will not exceed 5 ppmvd on an annual basis and 10 ppmvd on an 3-hour average.
			SO2	Good combustion practices. Fuel limited to firing pipeline quality natural gas (low sulfur fuel). Sulfur content of fuel will not exceed 2 to 5 grains per 100 scf on an hourly basis and 0.5 to 1 gr/100 scf on an annual basis.	Yes	The pipeline-quality natural gas used to fire the turbines has a maximum sulfur content of 0.5 grains per 100 scf on a 1-hour average. The turbines will utilize good combustion practices
			H2SO4	Good combustion practices. Fuel limited to firing pipeline quality natural gas (low sulfur fuel). Sulfur content of fuel will not exceed 5 grains per 100 scf on an hourly basis and 1 gr/100 scf on an annual basis.	Yes	The pipeline-quality natural gas used to fire the turbines has a maximum sulfur content of 0.5 grains per 100 scf on a 1-hour average. The turbines will utilize good combustion practices
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Good combustion practices. Fuel limited to firing pipeline quality natural gas.	Yes	The turbines will utilize pipeline-quality natural gas and good combustion practices to minimize PM/PM10/PM2.5 formation. Emissions are based on a 1-hour average.
			CO2 Equivalent	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.

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			MSS	Minimizing the duration of MSS activities and operating the facility in accordance with best management practices and good air pollution control practices.	Yes	Will minimize the duration of MSS activities and operate the facility in accordance with best management practices and good air pollution control practices.
New/Modified	CT-21A	Turbine: Simple Cycle, Natural Gas	VOC	2 ppmvd at 15% O2 achieved through good combustion practices.	Yes	The turbines will utilize good combustion practices and an oxidation catalyst to not exceed 2 ppmvd at 15% O2 on an 3-hr average..
			NOx	5.0 to 9.0 ppmvd at 15% O2, typically achieved with dry low NOX burner, water/steam injection, limiting fuel consumption, or SCR. Specify numeric value and proposed technique.	Yes	The turbines will utilize dry low NOx burners and SCR to not exceed 2.5 ppmvd NOx at 15% O2 on a 3-hour average.
			CO	9-25 ppmvd at 15% O2, typically achieved with good combustion practices and/or oxidation catalyst. Specify numeric value and control technique. A detailed analysis is required if >9 ppmvd is proposed.	Yes	The turbines will utilize good combustion practices to not exceed 5.0 ppmvd at 15% O2 on a 3-hour average.
			NH3	7-10 ppmvd at 15% O, achieved by controlling the ammonia injection system to minimize ammonia slip	Yes	The ammonia injection system will be monitored to minimize NH3 slip to ensure that the emissions will not exceed 5 ppmvd on an annual basis and 10 ppmvd on an 3-hour average.
			SO2	Good combustion practices. Fuel limited to firing pipeline quality natural gas (low sulfur fuel). Sulfur content of fuel will not exceed 2 to 5 grains per 100 scf on an hourly basis and 0.5 to 1 gr/100 scf on an annual basis.	Yes	The pipeline-quality natural gas used to fire the turbines has a maximum sulfur content of 0.5 grains per 100 scf on a 1-hour average. The turbines will utilize good combustion practices
			H2SO4	Good combustion practices. Fuel limited to firing pipeline quality natural gas (low sulfur fuel). Sulfur content of fuel will not exceed 5 grains per 100 scf on an hourly basis and 1 gr/100 scf on an annual basis.	Yes	The pipeline-quality natural gas used to fire the turbines has a maximum sulfur content of 0.5 grains per 100 scf on a 1-hour average. The turbines will utilize good combustion practices
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Good combustion practices. Fuel limited to firing pipeline quality natural gas.	Yes	The turbines will utilize pipeline-quality natural gas and good combustion practices to minimize PM/PM10/PM2.5 formation. Emissions are based on a 1-hour average.
			CO2 Equivalent	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			MSS	Minimizing the duration of MSS activities and operating the facility in accordance with best management practices and good air pollution control practices.	Yes	Will minimize the duration of MSS activities and operate the facility in accordance with best management practices and good air pollution control practices.
New/Modified	CT-1B	Turbine: Simple Cycle, Natural Gas	VOC	2 ppmvd at 15% O2 achieved through good combustion practices.	Yes	The turbines will utilize good combustion practices and an oxidation catalyst to not exceed 2 ppmvd at 15% O2 on an 3-hr average..
			NOx	5.0 to 9.0 ppmvd at 15% O2, typically achieved with dry low NOX burner, water/steam injection, limiting fuel consumption, or SCR. Specify numeric value and proposed technique.	Yes	The turbines will utilize dry low NOx burners and SCR to not exceed 2.5 ppmvd NOx at 15% O2 on a 3-hour average.
			CO	9-25 ppmvd at 15% O2, typically achieved with good combustion practices and/or oxidation catalyst. Specify numeric value and control technique. A detailed analysis is required if >9 ppmvd is proposed.	Yes	The turbines will utilize good combustion practices and an oxidation catalyst to not exceed 9 ppmvd at 15% O2 on a 3-hour average.
			NH3	7-10 ppmvd at 15% O, achieved by controlling the ammonia injection system to minimize ammonia slip	Yes	The ammonia injection system will be monitored to minimize NH3 slip to ensure that the emissions will not exceed 5 ppmvd on an annual basis and 10 ppmvd on an 3-hour average.
			SO2	Good combustion practices. Fuel limited to firing pipeline quality natural gas (low sulfur fuel). Sulfur content of fuel will not exceed 2 to 5 grains per 100 scf on an hourly basis and 0.5 to 1 gr/100 scf on an annual basis.	Yes	The pipeline-quality natural gas used to fire the turbines has a maximum sulfur content of 0.5 grains per 100 scf on a 1-hour average. The turbines will utilize good combustion practices
			H2SO4	Good combustion practices. Fuel limited to firing pipeline quality natural gas (low sulfur fuel). Sulfur content of fuel will not exceed 5 grains per 100 scf on an hourly basis and 1 gr/100 scf on an annual basis.	Yes	The pipeline-quality natural gas used to fire the turbines has a maximum sulfur content of 0.5 grains per 100 scf on a 1-hour average. The turbines will utilize good combustion practices
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Good combustion practices. Fuel limited to firing pipeline quality natural gas.	Yes	The turbines will utilize pipeline-quality natural gas and good combustion practices to minimize PM/PM10/PM2.5 formation. Emissions are based on a 1-hour average.
			CO2 Equivalent	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			MSS	Minimizing the duration of MSS activities and operating the facility in accordance with best management practices and good air pollution control practices.	Yes	Will minimize the duration of MSS activities and operate the facility in accordance with best management practices and good air pollution control practices.

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New/Modified	CT-2B	Turbine: Simple Cycle, Natural Gas	VOC	2 ppmvd at 15% O2 achieved through good combustion practices.	Yes	The turbines will utilize good combustion practices and an oxidation catalyst to not exceed 2 ppmvd at 15% O2 on an 3-hr average..
			NOx	5.0 to 9.0 ppmvd at 15% O2, typically achieved with dry low NOX burner, water/steam injection, limiting fuel consumption, or SCR. Specify numeric value and proposed technique.	Yes	The turbines will utilize dry low NOx burners and SCR to not exceed 2.5 ppmvd NOx at 15% O2 on a 3-hour average.
			CO	9-25 ppmvd at 15% O2, typically achieved with good combustion practices and/or oxidation catalyst. Specify numeric value and control technique. A detailed analysis is required if >9 ppmvd is proposed.	Yes	The turbines will utilize good combustion practices and an oxidation catalyst to not exceed 9 ppmvd at 15% O2 on a 3-hour average.
			NH3	7-10 ppmvd at 15% O, achieved by controlling the ammonia injection system to minimize ammonia slip	Yes	The ammonia injection system will be monitored to minimize NH3 slip to ensure that the emissions will not exceed 5 ppmvd on an annual basis and 10 ppmvd on an 3-hour average.
			SO2	Good combustion practices. Fuel limited to firing pipeline quality natural gas (low sulfur fuel). Sulfur content of fuel will not exceed 2 to 5 grains per 100 scf on an hourly basis and 0.5 to 1 gr/100 scf on an annual basis.	Yes	The pipeline-quality natural gas used to fire the turbines has a maximum sulfur content of 0.5 grains per 100 scf on a 1-hour average. The turbines will utilize good combustion practices
			H2SO4	Good combustion practices. Fuel limited to firing pipeline quality natural gas (low sulfur fuel). Sulfur content of fuel will not exceed 5 grains per 100 scf on an hourly basis and 1 gr/100 scf on an annual basis.	Yes	The pipeline-quality natural gas used to fire the turbines has a maximum sulfur content of 0.5 grains per 100 scf on a 1-hour average. The turbines will utilize good combustion practices
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Good combustion practices. Fuel limited to firing pipeline quality natural gas.	Yes	The turbines will utilize pipeline-quality natural gas and good combustion practices to minimize PM/PM10/PM2.5 formation. Emissions are based on a 1-hour average.
			CO2 Equivalent	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			MSS	Minimizing the duration of MSS activities and operating the facility in accordance with best management practices and good air pollution control practices.	Yes	Will minimize the duration of MSS activities and operate the facility in accordance with best management practices and good air pollution control practices.
New/Modified	CT-3B	Turbine: Simple Cycle, Natural Gas	VOC	2 ppmvd at 15% O2 achieved through good combustion practices.	Yes	The turbines will utilize good combustion practices and an oxidation catalyst to not exceed 2 ppmvd at 15% O2 on an 3-hr average..
			NOx	5.0 to 9.0 ppmvd at 15% O2, typically achieved with dry low NOX burner, water/steam injection, limiting fuel consumption, or SCR. Specify numeric value and proposed technique.	Yes	The turbines will utilize dry low NOx burners and SCR to not exceed 2.5 ppmvd NOx at 15% O2 on a 3-hour average.
			CO	9-25 ppmvd at 15% O2, typically achieved with good combustion practices and/or oxidation catalyst. Specify numeric value and control technique. A detailed analysis is required if >9 ppmvd is proposed.	Yes	The turbines will utilize good combustion practices and an oxidation catalyst to not exceed 9 ppmvd at 15% O2 on a 3-hour average.
			NH3	7-10 ppmvd at 15% O, achieved by controlling the ammonia injection system to minimize ammonia slip	Yes	The ammonia injection system will be monitored to minimize NH3 slip to ensure that the emissions will not exceed 5 ppmvd on an annual basis and 10 ppmvd on an 3-hour average.
			SO2	Good combustion practices. Fuel limited to firing pipeline quality natural gas (low sulfur fuel). Sulfur content of fuel will not exceed 2 to 5 grains per 100 scf on an hourly basis and 0.5 to 1 gr/100 scf on an annual basis.	Yes	The pipeline-quality natural gas used to fire the turbines has a maximum sulfur content of 0.5 grains per 100 scf on a 1-hour average. The turbines will utilize good combustion practices
			H2SO4	Good combustion practices. Fuel limited to firing pipeline quality natural gas (low sulfur fuel). Sulfur content of fuel will not exceed 5 grains per 100 scf on an hourly basis and 1 gr/100 scf on an annual basis.	Yes	The pipeline-quality natural gas used to fire the turbines has a maximum sulfur content of 0.5 grains per 100 scf on a 1-hour average. The turbines will utilize good combustion practices
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Good combustion practices. Fuel limited to firing pipeline quality natural gas.	Yes	The turbines will utilize pipeline-quality natural gas and good combustion practices to minimize PM/PM10/PM2.5 formation. Emissions are based on a 1-hour average.
			CO2 Equivalent	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			MSS	Minimizing the duration of MSS activities and operating the facility in accordance with best management practices and good air pollution control practices.	Yes	Will minimize the duration of MSS activities and operate the facility in accordance with best management practices and good air pollution control practices.
New/Modified	CT-4B	Turbine: Simple Cycle, Natural Gas	VOC	2 ppmvd at 15% O2 achieved through good combustion practices.	Yes	The turbines will utilize good combustion practices and an oxidation catalyst to not exceed 2 ppmvd at 15% O2 on an 3-hr average..
			NOx	5.0 to 9.0 ppmvd at 15% O2, typically achieved with dry low NOX burner, water/steam injection, limiting fuel consumption, or SCR. Specify numeric value and proposed technique.	Yes	The turbines will utilize dry low NOx burners and SCR to not exceed 2.5 ppmvd NOx at 15% O2 on a 3-hour average.
			CO	9-25 ppmvd at 15% O2, typically achieved with good combustion practices and/or oxidation catalyst. Specify numeric value and control technique. A detailed analysis is required if >9 ppmvd is proposed.	Yes	The turbines will utilize good combustion practices and an oxidation catalyst to not exceed 9 ppmvd at 15% O2 on a 3-hour average.

Action Requested	FINs	Unit Type	Pollutant	Current Tier I BACT	Confirm	Additional Notes
			NH3	7-10 ppmvd at 15% O, achieved by controlling the ammonia injection system to minimize ammonia slip	Yes	The ammonia injection system will be monitored to minimize NH3 slip to ensure that the emissions will not exceed 5 ppmvd on an annual basis and 10 ppmvd on an 3-hour average.
			SO2	Good combustion practices. Fuel limited to firing pipeline quality natural gas (low sulfur fuel). Sulfur content of fuel will not exceed 2 to 5 grains per 100 scf on an hourly basis and 0.5 to 1 gr/100 scf on an annual basis.	Yes	The pipeline-quality natural gas used to fire the turbines has a maximum sulfur content of 0.5 grains per 100 scf on a 1-hour average. The turbines will utilize good combustion practices
			H2SO4	Good combustion practices. Fuel limited to firing pipeline quality natural gas (low sulfur fuel). Sulfur content of fuel will not exceed 5 grains per 100 scf on an hourly basis and 1 gr/100 scf on an annual basis.	Yes	The pipeline-quality natural gas used to fire the turbines has a maximum sulfur content of 0.5 grains per 100 scf on a 1-hour average. The turbines will utilize good combustion practices
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Good combustion practices. Fuel limited to firing pipeline quality natural gas.	Yes	The turbines will utilize pipeline-quality natural gas and good combustion practices to minimize PM/PM10/PM2.5 formation. Emissions are based on a 1-hour average.
			CO2 Equivalent	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			MSS	Minimizing the duration of MSS activities and operating the facility in accordance with best management practices and good air pollution control practices.	Yes	Will minimize the duration of MSS activities and operate the facility in accordance with best management practices and good air pollution control practices.
New/Modified	CT-5B	Turbine: Simple Cycle, Natural Gas	VOC	2 ppmvd at 15% O2 achieved through good combustion practices.	Yes	The turbines will utilize good combustion practices and an oxidation catalyst to not exceed 2 ppmvd at 15% O2 on an 3-hr average..
			NOx	5.0 to 9.0 ppmvd at 15% O2, typically achieved with dry low NOX burner, water/steam injection, limiting fuel consumption, or SCR. Specify numeric value and proposed technique.	Yes	The turbines will utilize dry low NOx burners and SCR to not exceed 2.5 ppmvd NOx at 15% O2 on a 3-hour average.
			CO	9-25 ppmvd at 15% O2, typically achieved with good combustion practices and/or oxidation catalyst. Specify numeric value and control technique. A detailed analysis is required if >9 ppmvd is proposed.	Yes	The turbines will utilize good combustion practices and an oxidation catalyst to not exceed 9 ppmvd at 15% O2 on a 3-hour average.
			NH3	7-10 ppmvd at 15% O, achieved by controlling the ammonia injection system to minimize ammonia slip	Yes	The ammonia injection system will be monitored to minimize NH3 slip to ensure that the emissions will not exceed 5 ppmvd on an annual basis and 10 ppmvd on an 3-hour average.
			SO2	Good combustion practices. Fuel limited to firing pipeline quality natural gas (low sulfur fuel). Sulfur content of fuel will not exceed 2 to 5 grains per 100 scf on an hourly basis and 0.5 to 1 gr/100 scf on an annual basis.	Yes	The pipeline-quality natural gas used to fire the turbines has a maximum sulfur content of 0.5 grains per 100 scf on a 1-hour average. The turbines will utilize good combustion practices
			H2SO4	Good combustion practices. Fuel limited to firing pipeline quality natural gas (low sulfur fuel). Sulfur content of fuel will not exceed 5 grains per 100 scf on an hourly basis and 1 gr/100 scf on an annual basis.	Yes	The pipeline-quality natural gas used to fire the turbines has a maximum sulfur content of 0.5 grains per 100 scf on a 1-hour average. The turbines will utilize good combustion practices
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Good combustion practices. Fuel limited to firing pipeline quality natural gas.	Yes	The turbines will utilize pipeline-quality natural gas and good combustion practices to minimize PM/PM10/PM2.5 formation. Emissions are based on a 1-hour average.
			CO2 Equivalent	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			MSS	Minimizing the duration of MSS activities and operating the facility in accordance with best management practices and good air pollution control practices.	Yes	Will minimize the duration of MSS activities and operate the facility in accordance with best management practices and good air pollution control practices.
New/Modified	CT-6B	Turbine: Simple Cycle, Natural Gas	VOC	2 ppmvd at 15% O2 achieved through good combustion practices.	Yes	The turbines will utilize good combustion practices and an oxidation catalyst to not exceed 2 ppmvd at 15% O2 on an 3-hr average..
			NOx	5.0 to 9.0 ppmvd at 15% O2, typically achieved with dry low NOX burner, water/steam injection, limiting fuel consumption, or SCR. Specify numeric value and proposed technique.	Yes	The turbines will utilize dry low NOx burners and SCR to not exceed 2.5 ppmvd NOx at 15% O2 on a 3-hour average.
			CO	9-25 ppmvd at 15% O2, typically achieved with good combustion practices and/or oxidation catalyst. Specify numeric value and control technique. A detailed analysis is required if >9 ppmvd is proposed.	Yes	The turbines will utilize good combustion practices and an oxidation catalyst to not exceed 9 ppmvd at 15% O2 on a 3-hour average.
			NH3	7-10 ppmvd at 15% O, achieved by controlling the ammonia injection system to minimize ammonia slip	Yes	The ammonia injection system will be monitored to minimize NH3 slip to ensure that the emissions will not exceed 5 ppmvd on an annual basis and 10 ppmvd on an 3-hour average.
			SO2	Good combustion practices. Fuel limited to firing pipeline quality natural gas (low sulfur fuel). Sulfur content of fuel will not exceed 2 to 5 grains per 100 scf on an hourly basis and 0.5 to 1 gr/100 scf on an annual basis.	Yes	The pipeline-quality natural gas used to fire the turbines has a maximum sulfur content of 0.5 grains per 100 scf on a 1-hour average. The turbines will utilize good combustion practices

Action Requested	FINs	Unit Type	Pollutant	Current Tier I BACT	Confirm	Additional Notes
			H2SO4	Good combustion practices. Fuel limited to firing pipeline quality natural gas (low sulfur fuel). Sulfur content of fuel will not exceed 5 grains per 100 scf on an hourly basis and 1 gr/100 scf on an annual basis.	Yes	The pipeline-quality natural gas used to fire the turbines has a maximum sulfur content of 0.5 grains per 100 scf on a 1-hour average. The turbines will utilize good combustion practices
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Good combustion practices. Fuel limited to firing pipeline quality natural gas.	Yes	The turbines will utilize pipeline-quality natural gas and good combustion practices to minimize PM/PM10/PM2.5 formation. Emissions are based on a 1-hour average.
			CO2 Equivalent	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			MSS	Minimizing the duration of MSS activities and operating the facility in accordance with best management practices and good air pollution control practices.	Yes	Will minimize the duration of MSS activities and operate the facility in accordance with best management practices and good air pollution control practices.
New/Modified	CT-7B	Turbine: Simple Cycle, Natural Gas	VOC	2 ppmvd at 15% O2 achieved through good combustion practices.	Yes	The turbines will utilize good combustion practices and an oxidation catalyst to not exceed 2 ppmvd at 15% O2 on an 3-hr average..
			NOx	5.0 to 9.0 ppmvd at 15% O2, typically achieved with dry low NOX burner, water/steam injection, limiting fuel consumption, or SCR. Specify numeric value and proposed technique.	Yes	The turbines will utilize dry low NOx burners and SCR to not exceed 2.5 ppmvd NOx at 15% O2 on a 3-hour average.
			CO	9-25 ppmvd at 15% O2, typically achieved with good combustion practices and/or oxidation catalyst. Specify numeric value and control technique. A detailed analysis is required if >9 ppmvd is proposed.	Yes	The turbines will utilize good combustion practices and an oxidation catalyst to not exceed 9 ppmvd at 15% O2 on a 3-hour average.
			NH3	7-10 ppmvd at 15% O, achieved by controlling the ammonia injection system to minimize ammonia slip	Yes	The ammonia injection system will be monitored to minimize NH3 slip to ensure that the emissions will not exceed 5 ppmvd on an annual basis and 10 ppmvd on an 3-hour average.
			SO2	Good combustion practices. Fuel limited to firing pipeline quality natural gas (low sulfur fuel). Sulfur content of fuel will not exceed 2 to 5 grains per 100 scf on an hourly basis and 0.5 to 1 gr/100 scf on an annual basis.	Yes	The pipeline-quality natural gas used to fire the turbines has a maximum sulfur content of 0.5 grains per 100 scf on a 1-hour average. The turbines will utilize good combustion practices
			H2SO4	Good combustion practices. Fuel limited to firing pipeline quality natural gas (low sulfur fuel). Sulfur content of fuel will not exceed 5 grains per 100 scf on an hourly basis and 1 gr/100 scf on an annual basis.	Yes	The pipeline-quality natural gas used to fire the turbines has a maximum sulfur content of 0.5 grains per 100 scf on a 1-hour average. The turbines will utilize good combustion practices
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Good combustion practices. Fuel limited to firing pipeline quality natural gas.	Yes	The turbines will utilize pipeline-quality natural gas and good combustion practices to minimize PM/PM10/PM2.5 formation. Emissions are based on a 1-hour average.
			CO2 Equivalent	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			MSS	Minimizing the duration of MSS activities and operating the facility in accordance with best management practices and good air pollution control practices.	Yes	Will minimize the duration of MSS activities and operate the facility in accordance with best management practices and good air pollution control practices.
New/Modified	CT-8B	Turbine: Simple Cycle, Natural Gas	VOC	2 ppmvd at 15% O2 achieved through good combustion practices.	Yes	The turbines will utilize good combustion practices and an oxidation catalyst to not exceed 2 ppmvd at 15% O2 on an 3-hr average..
			NOx	5.0 to 9.0 ppmvd at 15% O2, typically achieved with dry low NOX burner, water/steam injection, limiting fuel consumption, or SCR. Specify numeric value and proposed technique.	Yes	The turbines will utilize dry low NOx burners and SCR to not exceed 2.5 ppmvd NOx at 15% O2 on a 3-hour average.
			CO	9-25 ppmvd at 15% O2, typically achieved with good combustion practices and/or oxidation catalyst. Specify numeric value and control technique. A detailed analysis is required if >9 ppmvd is proposed.	Yes	The turbines will utilize good combustion practices and an oxidation catalyst to not exceed 9 ppmvd at 15% O2 on a 3-hour average.
			NH3	7-10 ppmvd at 15% O, achieved by controlling the ammonia injection system to minimize ammonia slip	Yes	The ammonia injection system will be monitored to minimize NH3 slip to ensure that the emissions will not exceed 5 ppmvd on an annual basis and 10 ppmvd on an 3-hour average.
			SO2	Good combustion practices. Fuel limited to firing pipeline quality natural gas (low sulfur fuel). Sulfur content of fuel will not exceed 2 to 5 grains per 100 scf on an hourly basis and 0.5 to 1 gr/100 scf on an annual basis.	Yes	The pipeline-quality natural gas used to fire the turbines has a maximum sulfur content of 0.5 grains per 100 scf on a 1-hour average. The turbines will utilize good combustion practices
			H2SO4	Good combustion practices. Fuel limited to firing pipeline quality natural gas (low sulfur fuel). Sulfur content of fuel will not exceed 5 grains per 100 scf on an hourly basis and 1 gr/100 scf on an annual basis.	Yes	The pipeline-quality natural gas used to fire the turbines has a maximum sulfur content of 0.5 grains per 100 scf on a 1-hour average. The turbines will utilize good combustion practices
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Good combustion practices. Fuel limited to firing pipeline quality natural gas.	Yes	The turbines will utilize pipeline-quality natural gas and good combustion practices to minimize PM/PM10/PM2.5 formation. Emissions are based on a 1-hour average.
			CO2 Equivalent	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.

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			MSS	Minimizing the duration of MSS activities and operating the facility in accordance with best management practices and good air pollution control practices.	Yes	Will minimize the duration of MSS activities and operate the facility in accordance with best management practices and good air pollution control practices.
New/Modified	CT-9B	Turbine: Simple Cycle, Natural Gas	VOC	2 ppmvd at 15% O2 achieved through good combustion practices.	Yes	The turbines will utilize good combustion practices and an oxidation catalyst to not exceed 2 ppmvd at 15% O2 on an 3-hr average..
			NOx	5.0 to 9.0 ppmvd at 15% O2, typically achieved with dry low NOX burner, water/steam injection, limiting fuel consumption, or SCR. Specify numeric value and proposed technique.	Yes	The turbines will utilize dry low NOx burners and SCR to not exceed 2.5 ppmvd NOx at 15% O2 on a 3-hour average.
			CO	9-25 ppmvd at 15% O2, typically achieved with good combustion practices and/or oxidation catalyst. Specify numeric value and control technique. A detailed analysis is required if >9 ppmvd is proposed.	Yes	The turbines will utilize good combustion practices and an oxidation catalyst to not exceed 9 ppmvd at 15% O2 on a 3-hour average.
			NH3	7-10 ppmvd at 15% O, achieved by controlling the ammonia injection system to minimize ammonia slip	Yes	The ammonia injection system will be monitored to minimize NH3 slip to ensure that the emissions will not exceed 5 ppmvd on an annual basis and 10 ppmvd on an 3-hour average.
			SO2	Good combustion practices. Fuel limited to firing pipeline quality natural gas (low sulfur fuel). Sulfur content of fuel will not exceed 2 to 5 grains per 100 scf on an hourly basis and 0.5 to 1 gr/100 scf on an annual basis.	Yes	The pipeline-quality natural gas used to fire the turbines has a maximum sulfur content of 0.5 grains per 100 scf on a 1-hour average. The turbines will utilize good combustion practices
			H2SO4	Good combustion practices. Fuel limited to firing pipeline quality natural gas (low sulfur fuel). Sulfur content of fuel will not exceed 5 grains per 100 scf on an hourly basis and 1 gr/100 scf on an annual basis.	Yes	The pipeline-quality natural gas used to fire the turbines has a maximum sulfur content of 0.5 grains per 100 scf on a 1-hour average. The turbines will utilize good combustion practices
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Good combustion practices. Fuel limited to firing pipeline quality natural gas.	Yes	The turbines will utilize pipeline-quality natural gas and good combustion practices to minimize PM/PM10/PM2.5 formation. Emissions are based on a 1-hour average.
			CO2 Equivalent	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			MSS	Minimizing the duration of MSS activities and operating the facility in accordance with best management practices and good air pollution control practices.	Yes	Will minimize the duration of MSS activities and operate the facility in accordance with best management practices and good air pollution control practices.
New/Modified	CT-10B	Turbine: Simple Cycle, Natural Gas	VOC	2 ppmvd at 15% O2 achieved through good combustion practices.	Yes	The turbines will utilize good combustion practices and an oxidation catalyst to not exceed 2 ppmvd at 15% O2 on an 3-hr average..
			NOx	5.0 to 9.0 ppmvd at 15% O2, typically achieved with dry low NOX burner, water/steam injection, limiting fuel consumption, or SCR. Specify numeric value and proposed technique.	Yes	The turbines will utilize dry low NOx burners and SCR to not exceed 2.5 ppmvd NOx at 15% O2 on a 3-hour average.
			CO	9-25 ppmvd at 15% O2, typically achieved with good combustion practices and/or oxidation catalyst. Specify numeric value and control technique. A detailed analysis is required if >9 ppmvd is proposed.	Yes	The turbines will utilize good combustion practices and an oxidation catalyst to not exceed 9 ppmvd at 15% O2 on a 3-hour average.
			NH3	7-10 ppmvd at 15% O, achieved by controlling the ammonia injection system to minimize ammonia slip	Yes	The ammonia injection system will be monitored to minimize NH3 slip to ensure that the emissions will not exceed 5 ppmvd on an annual basis and 10 ppmvd on an 3-hour average.
			SO2	Good combustion practices. Fuel limited to firing pipeline quality natural gas (low sulfur fuel). Sulfur content of fuel will not exceed 2 to 5 grains per 100 scf on an hourly basis and 0.5 to 1 gr/100 scf on an annual basis.	Yes	The pipeline-quality natural gas used to fire the turbines has a maximum sulfur content of 0.5 grains per 100 scf on a 1-hour average. The turbines will utilize good combustion practices
			H2SO4	Good combustion practices. Fuel limited to firing pipeline quality natural gas (low sulfur fuel). Sulfur content of fuel will not exceed 5 grains per 100 scf on an hourly basis and 1 gr/100 scf on an annual basis.	Yes	The pipeline-quality natural gas used to fire the turbines has a maximum sulfur content of 0.5 grains per 100 scf on a 1-hour average. The turbines will utilize good combustion practices
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Good combustion practices. Fuel limited to firing pipeline quality natural gas.	Yes	The turbines will utilize pipeline-quality natural gas and good combustion practices to minimize PM/PM10/PM2.5 formation. Emissions are based on a 1-hour average.
			CO2 Equivalent	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			MSS	Minimizing the duration of MSS activities and operating the facility in accordance with best management practices and good air pollution control practices.	Yes	Will minimize the duration of MSS activities and operate the facility in accordance with best management practices and good air pollution control practices.

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New/Modified	CT-11B	Turbine: Simple Cycle, Natural Gas	VOC	2 ppmvd at 15% O2 achieved through good combustion practices.	Yes	The turbines will utilize good combustion practices and an oxidation catalyst to not exceed 2 ppmvd at 15% O2 on an 3-hr average..
			NOx	5.0 to 9.0 ppmvd at 15% O2, typically achieved with dry low NOX burner, water/steam injection, limiting fuel consumption, or SCR. Specify numeric value and proposed technique.	Yes	The turbines will utilize dry low NOx burners and SCR to not exceed 2.5 ppmvd NOx at 15% O2 on a 3-hour average.
			CO	9-25 ppmvd at 15% O2, typically achieved with good combustion practices and/or oxidation catalyst. Specify numeric value and control technique. A detailed analysis is required if >9 ppmvd is proposed.	Yes	The turbines will utilize good combustion practices and an oxidation catalyst to not exceed 9 ppmvd at 15% O2 on a 3-hour average.
			NH3	7-10 ppmvd at 15% O, achieved by controlling the ammonia injection system to minimize ammonia slip	Yes	The ammonia injection system will be monitored to minimize NH3 slip to ensure that the emissions will not exceed 5 ppmvd on an annual basis and 10 ppmvd on an 3-hour average.
			SO2	Good combustion practices. Fuel limited to firing pipeline quality natural gas (low sulfur fuel). Sulfur content of fuel will not exceed 2 to 5 grains per 100 scf on an hourly basis and 0.5 to 1 gr/100 scf on an annual basis.	Yes	The pipeline-quality natural gas used to fire the turbines has a maximum sulfur content of 0.5 grains per 100 scf on a 1-hour average. The turbines will utilize good combustion practices
			H2SO4	Good combustion practices. Fuel limited to firing pipeline quality natural gas (low sulfur fuel). Sulfur content of fuel will not exceed 5 grains per 100 scf on an hourly basis and 1 gr/100 scf on an annual basis.	Yes	The pipeline-quality natural gas used to fire the turbines has a maximum sulfur content of 0.5 grains per 100 scf on a 1-hour average. The turbines will utilize good combustion practices
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Good combustion practices. Fuel limited to firing pipeline quality natural gas.	Yes	The turbines will utilize pipeline-quality natural gas and good combustion practices to minimize PM/PM10/PM2.5 formation. Emissions are based on a 1-hour average.
			CO2 Equivalent	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			MSS	Minimizing the duration of MSS activities and operating the facility in accordance with best management practices and good air pollution control practices.	Yes	Will minimize the duration of MSS activities and operate the facility in accordance with best management practices and good air pollution control practices.
New/Modified	CT-12B	Turbine: Simple Cycle, Natural Gas	VOC	2 ppmvd at 15% O2 achieved through good combustion practices.	Yes	The turbines will utilize good combustion practices and an oxidation catalyst to not exceed 2 ppmvd at 15% O2 on an 3-hr average..
			NOx	5.0 to 9.0 ppmvd at 15% O2, typically achieved with dry low NOX burner, water/steam injection, limiting fuel consumption, or SCR. Specify numeric value and proposed technique.	Yes	The turbines will utilize dry low NOx burners and SCR to not exceed 2.5 ppmvd NOx at 15% O2 on a 3-hour average.
			CO	9-25 ppmvd at 15% O2, typically achieved with good combustion practices and/or oxidation catalyst. Specify numeric value and control technique. A detailed analysis is required if >9 ppmvd is proposed.	Yes	The turbines will utilize good combustion practices and an oxidation catalyst to not exceed 9 ppmvd at 15% O2 on a 3-hour average.
			NH3	7-10 ppmvd at 15% O, achieved by controlling the ammonia injection system to minimize ammonia slip	Yes	The ammonia injection system will be monitored to minimize NH3 slip to ensure that the emissions will not exceed 5 ppmvd on an annual basis and 10 ppmvd on an 3-hour average.
			SO2	Good combustion practices. Fuel limited to firing pipeline quality natural gas (low sulfur fuel). Sulfur content of fuel will not exceed 2 to 5 grains per 100 scf on an hourly basis and 0.5 to 1 gr/100 scf on an annual basis.	Yes	The pipeline-quality natural gas used to fire the turbines has a maximum sulfur content of 0.5 grains per 100 scf on a 1-hour average. The turbines will utilize good combustion practices
			H2SO4	Good combustion practices. Fuel limited to firing pipeline quality natural gas (low sulfur fuel). Sulfur content of fuel will not exceed 5 grains per 100 scf on an hourly basis and 1 gr/100 scf on an annual basis.	Yes	The pipeline-quality natural gas used to fire the turbines has a maximum sulfur content of 0.5 grains per 100 scf on a 1-hour average. The turbines will utilize good combustion practices
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Good combustion practices. Fuel limited to firing pipeline quality natural gas.	Yes	The turbines will utilize pipeline-quality natural gas and good combustion practices to minimize PM/PM10/PM2.5 formation. Emissions are based on a 1-hour average.
			CO2 Equivalent	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			MSS	Minimizing the duration of MSS activities and operating the facility in accordance with best management practices and good air pollution control practices.	Yes	Will minimize the duration of MSS activities and operate the facility in accordance with best management practices and good air pollution control practices.
New/Modified	CT-13B	Turbine: Simple Cycle, Natural Gas	VOC	2 ppmvd at 15% O2 achieved through good combustion practices.	Yes	The turbines will utilize good combustion practices and an oxidation catalyst to not exceed 2 ppmvd at 15% O2 on an 3-hr average..
			NOx	5.0 to 9.0 ppmvd at 15% O2, typically achieved with dry low NOX burner, water/steam injection, limiting fuel consumption, or SCR. Specify numeric value and proposed technique.	Yes	The turbines will utilize dry low NOx burners and SCR to not exceed 2.5 ppmvd NOx at 15% O2 on a 3-hour average.
			CO	9-25 ppmvd at 15% O2, typically achieved with good combustion practices and/or oxidation catalyst. Specify numeric value and control technique. A detailed analysis is required if >9 ppmvd is proposed.	Yes	The turbines will utilize good combustion practices and an oxidation catalyst to not exceed 9 ppmvd at 15% O2 on a 3-hour average.

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			NH3	7-10 ppmvd at 15% O, achieved by controlling the ammonia injection system to minimize ammonia slip	Yes	The ammonia injection system will be monitored to minimize NH3 slip to ensure that the emissions will not exceed 5 ppmvd on an annual basis and 10 ppmvd on an 3-hour average.
			SO2	Good combustion practices. Fuel limited to firing pipeline quality natural gas (low sulfur fuel). Sulfur content of fuel will not exceed 2 to 5 grains per 100 scf on an hourly basis and 0.5 to 1 gr/100 scf on an annual basis.	Yes	The pipeline-quality natural gas used to fire the turbines has a maximum sulfur content of 0.5 grains per 100 scf on a 1-hour average. The turbines will utilize good combustion practices
			H2SO4	Good combustion practices. Fuel limited to firing pipeline quality natural gas (low sulfur fuel). Sulfur content of fuel will not exceed 5 grains per 100 scf on an hourly basis and 1 gr/100 scf on an annual basis.	Yes	The pipeline-quality natural gas used to fire the turbines has a maximum sulfur content of 0.5 grains per 100 scf on a 1-hour average. The turbines will utilize good combustion practices
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Good combustion practices. Fuel limited to firing pipeline quality natural gas.	Yes	The turbines will utilize pipeline-quality natural gas and good combustion practices to minimize PM/PM10/PM2.5 formation. Emissions are based on a 1-hour average.
			CO2 Equivalent	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			MSS	Minimizing the duration of MSS activities and operating the facility in accordance with best management practices and good air pollution control practices.	Yes	Will minimize the duration of MSS activities and operate the facility in accordance with best management practices and good air pollution control practices.
New/Modified	CT-14B	Turbine: Simple Cycle, Natural Gas	VOC	2 ppmvd at 15% O2 achieved through good combustion practices.	Yes	The turbines will utilize good combustion practices and an oxidation catalyst to not exceed 2 ppmvd at 15% O2 on an 3-hr average..
			NOx	5.0 to 9.0 ppmvd at 15% O2, typically achieved with dry low NOX burner, water/steam injection, limiting fuel consumption, or SCR. Specify numeric value and proposed technique.	Yes	The turbines will utilize dry low NOx burners and SCR to not exceed 2.5 ppmvd NOx at 15% O2 on a 3-hour average.
			CO	9-25 ppmvd at 15% O2, typically achieved with good combustion practices and/or oxidation catalyst. Specify numeric value and control technique. A detailed analysis is required if >9 ppmvd is proposed.	Yes	The turbines will utilize good combustion practices and an oxidation catalyst to not exceed 9 ppmvd at 15% O2 on a 3-hour average.
			NH3	7-10 ppmvd at 15% O, achieved by controlling the ammonia injection system to minimize ammonia slip	Yes	The ammonia injection system will be monitored to minimize NH3 slip to ensure that the emissions will not exceed 5 ppmvd on an annual basis and 10 ppmvd on an 3-hour average.
			SO2	Good combustion practices. Fuel limited to firing pipeline quality natural gas (low sulfur fuel). Sulfur content of fuel will not exceed 2 to 5 grains per 100 scf on an hourly basis and 0.5 to 1 gr/100 scf on an annual basis.	Yes	The pipeline-quality natural gas used to fire the turbines has a maximum sulfur content of 0.5 grains per 100 scf on a 1-hour average. The turbines will utilize good combustion practices
			H2SO4	Good combustion practices. Fuel limited to firing pipeline quality natural gas (low sulfur fuel). Sulfur content of fuel will not exceed 5 grains per 100 scf on an hourly basis and 1 gr/100 scf on an annual basis.	Yes	The pipeline-quality natural gas used to fire the turbines has a maximum sulfur content of 0.5 grains per 100 scf on a 1-hour average. The turbines will utilize good combustion practices
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Good combustion practices. Fuel limited to firing pipeline quality natural gas.	Yes	The turbines will utilize pipeline-quality natural gas and good combustion practices to minimize PM/PM10/PM2.5 formation. Emissions are based on a 1-hour average.
			CO2 Equivalent	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			MSS	Minimizing the duration of MSS activities and operating the facility in accordance with best management practices and good air pollution control practices.	Yes	Will minimize the duration of MSS activities and operate the facility in accordance with best management practices and good air pollution control practices.
New/Modified	DPHEAT1	Heater	VOC	Firing pipeline quality natural gas and good combustion practices. Specify if firing a different fuel.	Yes	The heaters will utilize good combustion practices to minimize VOC formation.
			NOx	Burners with the best NOx performance given the burner configuration and gaseous fuel used. Specify the proposed emission rate (performance is an annual average) and provide justification if NOx>0.01 lb/MMBtu. Cost data must be submitted for SCR if firing rate is > 300 MMBtu/hr and burner is >0.01 lb/MMBtu. CEMS required for 100 MMBtu/hr or greater	Yes	The heaters will utilize ultra low NOx burners and good combustion practices to meet an emission limit of 0.011 lb/MMBtu.
			CO	50 ppmv corrected to 3% O2	Yes	The heaters will utilize good combustion practices to meet an emission limit of 50 ppmv corrected to 3% O2.
			SO2	Maximum 0.6% sulfur content any liquid fuel or 5 grains for pipeline quality sweet natural gas. Provide details.	Yes	The heaters will utilize pipeline-quality low sulfur natural gas to minimize SO2 formation.
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Maximum opacity 5%	Yes	The heaters will utilize pipeline-quality low sulfur natural gas and good combustion practices to minimize PM/PM10/PM2.5 formation.

Action Requested	FINs	Unit Type	Pollutant	Current Tier I BACT	Confirm	Additional Notes
			CO2	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			CH4	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			N2O	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			CO2 Equivalent	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			MSS	Same as normal operation BACT requirements.	Yes	Same as normal operation BACT requirements
New/Modified	DPHEAT2	Heater	VOC	Firing pipeline quality natural gas and good combustion practices. Specify if firing a different fuel.	Yes	The heaters will utilize good combustion practices to minimize VOC formation.
			NOx	Burners with the best NOx performance given the burner configuration and gaseous fuel used. Specify the proposed emission rate (performance is an annual average) and provide justification if NOx>0.01 lb/MMBtu. Cost data must be submitted for SCR if firing rate is > 300 MMBtu/hr and burner is >0.01 lb/MMBtu. CEMS required for 100 MMBtu/hr or greater	Yes	The heaters will utilize ultra low NOx burners and good combustion practices to meet an emission limit of 0.011 lb/MMBtu.
			CO	50 ppmv corrected to 3% O2	Yes	The heaters will utilize good combustion practices to meet an emission limit of 50 ppmv corrected to 3% O2.
			SO2	Maximum 0.6% sulfur content any liquid fuel or 5 grains for pipeline quality sweet natural gas. Provide details.	Yes	The heaters will utilize pipeline-quality low sulfur natural gas to minimize SO2 formation.
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Maximum opacity 5%	Yes	The heaters will utilize pipeline-quality low sulfur natural gas and good combustion practices to minimize PM/PM10/PM2.5 formation.
			CO2	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			CH4	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			N2O	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			CO2 Equivalent	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			MSS	Same as normal operation BACT requirements.	Yes	Same as normal operation BACT requirements
New/Modified	DPHEAT3	Heater	VOC	Firing pipeline quality natural gas and good combustion practices. Specify if firing a different fuel.	Yes	The heaters will utilize good combustion practices to minimize VOC formation.
			NOx	Burners with the best NOx performance given the burner configuration and gaseous fuel used. Specify the proposed emission rate (performance is an annual average) and provide justification if NOx>0.01 lb/MMBtu. Cost data must be submitted for SCR if firing rate is > 300 MMBtu/hr and burner is >0.01 lb/MMBtu. CEMS required for 100 MMBtu/hr or greater	Yes	The heaters will utilize ultra low NOx burners and good combustion practices to meet an emission limit of 0.011 lb/MMBtu.
			CO	50 ppmv corrected to 3% O2	Yes	The heaters will utilize good combustion practices to meet an emission limit of 50 ppmv corrected to 3% O2.
			SO2	Maximum 0.6% sulfur content any liquid fuel or 5 grains for pipeline quality sweet natural gas. Provide details.	Yes	The heaters will utilize pipeline-quality low sulfur natural gas to minimize SO2 formation.
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Maximum opacity 5%	Yes	The heaters will utilize pipeline-quality low sulfur natural gas and good combustion practices to minimize PM/PM10/PM2.5 formation.
			CO2	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			CH4	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			N2O	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			CO2 Equivalent	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			MSS	Same as normal operation BACT requirements.	Yes	Same as normal operation BACT requirements
New/Modified	DPHEAT4	Heater	VOC	Firing pipeline quality natural gas and good combustion practices. Specify if firing a different fuel.	Yes	The heaters will utilize good combustion practices to minimize VOC formation.

Action Requested	FINs	Unit Type	Pollutant	Current Tier I BACT	Confirm	Additional Notes
			NOx	Burners with the best NOx performance given the burner configuration and gaseous fuel used. Specify the proposed emission rate (performance is an annual average) and provide justification if NOx>0.01 lb/MMBtu. Cost data must be submitted for SCR if firing rate is > 300 MMBtu/hr and burner is >0.01 lb/MMBtu. CEMS required for 100 MMBtu/hr or greater	Yes	The heaters will utilize ultra low NOx burners and good combustion practices to meet an emission limit of 0.011 lb/MMBtu.
			CO	50 ppmv corrected to 3% O2	Yes	The heaters will utilize good combustion practices to meet an emission limit of 50 ppmv corrected to 3% O2.
			SO2	Maximum 0.6% sulfur content any liquid fuel or 5 grains for pipeline quality sweet natural gas. Provide details.	Yes	The heaters will utilize pipeline-quality low sulfur natural gas to minimize SO2 formation.
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Maximum opacity 5%	Yes	The heaters will utilize pipeline-quality low sulfur natural gas and good combustion practices to minimize PM/PM10/PM2.5 formation.
			CO2	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			CH4	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			N2O	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			CO2 Equivalent	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			MSS	Same as normal operation BACT requirements.	Yes	Same as normal operation BACT requirements
New/Modified	DPHEAT5	Heater	VOC	Firing pipeline quality natural gas and good combustion practices. Specify if firing a different fuel.	Yes	The heaters will utilize good combustion practices to minimize VOC formation.
			NOx	Burners with the best NOx performance given the burner configuration and gaseous fuel used. Specify the proposed emission rate (performance is an annual average) and provide justification if NOx>0.01 lb/MMBtu. Cost data must be submitted for SCR if firing rate is > 300 MMBtu/hr and burner is >0.01 lb/MMBtu. CEMS required for 100 MMBtu/hr or greater	Yes	The heaters will utilize ultra low NOx burners and good combustion practices to meet an emission limit of 0.011 lb/MMBtu.
			CO	50 ppmv corrected to 3% O2	Yes	The heaters will utilize good combustion practices to meet an emission limit of 50 ppmv corrected to 3% O2.
			SO2	Maximum 0.6% sulfur content any liquid fuel or 5 grains for pipeline quality sweet natural gas. Provide details.	Yes	The heaters will utilize pipeline-quality low sulfur natural gas to minimize SO2 formation.
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Maximum opacity 5%	Yes	The heaters will utilize pipeline-quality low sulfur natural gas and good combustion practices to minimize PM/PM10/PM2.5 formation.
			CO2	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			CH4	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			N2O	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			CO2 Equivalent	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			MSS	Same as normal operation BACT requirements.	Yes	Same as normal operation BACT requirements
New/Modified	DPHEAT6	Heater	VOC	Firing pipeline quality natural gas and good combustion practices. Specify if firing a different fuel.	Yes	The heaters will utilize good combustion practices to minimize VOC formation.
			NOx	Burners with the best NOx performance given the burner configuration and gaseous fuel used. Specify the proposed emission rate (performance is an annual average) and provide justification if NOx>0.01 lb/MMBtu. Cost data must be submitted for SCR if firing rate is > 300 MMBtu/hr and burner is >0.01 lb/MMBtu. CEMS required for 100 MMBtu/hr or greater	Yes	The heaters will utilize ultra low NOx burners and good combustion practices to meet an emission limit of 0.011 lb/MMBtu.
			CO	50 ppmv corrected to 3% O2	Yes	The heaters will utilize good combustion practices to meet an emission limit of 50 ppmv corrected to 3% O2.
			SO2	Maximum 0.6% sulfur content any liquid fuel or 5 grains for pipeline quality sweet natural gas. Provide details.	Yes	The heaters will utilize pipeline-quality low sulfur natural gas to minimize SO2 formation.
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Maximum opacity 5%	Yes	The heaters will utilize pipeline-quality low sulfur natural gas and good combustion practices to minimize PM/PM10/PM2.5 formation.
			CO2	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			CH4	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.

Action Requested	FINs	Unit Type	Pollutant	Current Tier I BACT	Confirm	Additional Notes
			N2O	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			CO2 Equivalent	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			MSS	Same as normal operation BACT requirements.	Yes	Same as normal operation BACT requirements
New/Modified	DPHEAT7	Heater	VOC	Firing pipeline quality natural gas and good combustion practices. Specify if firing a different fuel.	Yes	The heaters will utilize good combustion practices to minimize VOC formation.
			NOx	Burners with the best NOx performance given the burner configuration and gaseous fuel used. Specify the proposed emission rate (performance is an annual average) and provide justification if NOx>0.01 lb/MMBtu. Cost data must be submitted for SCR if firing rate is > 300 MMBtu/hr and burner is >0.01 lb/MMBtu. CEMS required for 100 MMBtu/hr or greater	Yes	The heaters will utilize ultra low NOx burners and good combustion practices to meet an emission limit of 0.011 lb/MMBtu.
			CO	50 ppmv corrected to 3% O2	Yes	The heaters will utilize good combustion practices to meet an emission limit of 50 ppmv corrected to 3% O2.
			SO2	Maximum 0.6% sulfur content any liquid fuel or 5 grains for pipeline quality sweet natural gas. Provide details.	Yes	The heaters will utilize pipeline-quality low sulfur natural gas to minimize SO2 formation.
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Maximum opacity 5%	Yes	The heaters will utilize pipeline-quality low sulfur natural gas and good combustion practices to minimize PM/PM10/PM2.5 formation.
			CO2	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			CH4	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			N2O	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			CO2 Equivalent	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			MSS	Same as normal operation BACT requirements.	Yes	Same as normal operation BACT requirements
New/Modified	DPHEAT8	Heater	VOC	Firing pipeline quality natural gas and good combustion practices. Specify if firing a different fuel.	Yes	The heaters will utilize good combustion practices to minimize VOC formation.
			NOx	Burners with the best NOx performance given the burner configuration and gaseous fuel used. Specify the proposed emission rate (performance is an annual average) and provide justification if NOx>0.01 lb/MMBtu. Cost data must be submitted for SCR if firing rate is > 300 MMBtu/hr and burner is >0.01 lb/MMBtu. CEMS required for 100 MMBtu/hr or greater	Yes	The heaters will utilize ultra low NOx burners and good combustion practices to meet an emission limit of 0.011 lb/MMBtu.
			CO	50 ppmv corrected to 3% O2	Yes	The heaters will utilize good combustion practices to meet an emission limit of 50 ppmv corrected to 3% O2.
			SO2	Maximum 0.6% sulfur content any liquid fuel or 5 grains for pipeline quality sweet natural gas. Provide details.	Yes	The heaters will utilize pipeline-quality low sulfur natural gas to minimize SO2 formation.
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Maximum opacity 5%	Yes	The heaters will utilize pipeline-quality low sulfur natural gas and good combustion practices to minimize PM/PM10/PM2.5 formation.
			CO2	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			CH4	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			N2O	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			CO2 Equivalent	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			MSS	Same as normal operation BACT requirements.	Yes	Same as normal operation BACT requirements
New/Modified	DPHEAT9	Heater	VOC	Firing pipeline quality natural gas and good combustion practices. Specify if firing a different fuel.	Yes	The heaters will utilize good combustion practices to minimize VOC formation.

Action Requested	FINs	Unit Type	Pollutant	Current Tier I BACT	Confirm	Additional Notes
			NOx	Burners with the best NOx performance given the burner configuration and gaseous fuel used. Specify the proposed emission rate (performance is an annual average) and provide justification if NOx>0.01 lb/MMBtu. Cost data must be submitted for SCR if firing rate is > 300 MMBtu/hr and burner is >0.01 lb/MMBtu. CEMS required for 100 MMBtu/hr or greater	Yes	The heaters will utilize ultra low NOx burners and good combustion practices to meet an emission limit of 0.011 lb/MMBtu.
			CO	50 ppmv corrected to 3% O2	Yes	The heaters will utilize good combustion practices to meet an emission limit of 50 ppmv corrected to 3% O2.
			SO2	Maximum 0.6% sulfur content any liquid fuel or 5 grains for pipeline quality sweet natural gas. Provide details.	Yes	The heaters will utilize pipeline-quality low sulfur natural gas to minimize SO2 formation.
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Maximum opacity 5%	Yes	The heaters will utilize pipeline-quality low sulfur natural gas and good combustion practices to minimize PM/PM10/PM2.5 formation.
			CO2	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			CH4	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			N2O	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			CO2 Equivalent	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			MSS	Same as normal operation BACT requirements.	Yes	Same as normal operation BACT requirements
New/Modified	DPHEAT10	Heater	VOC	Firing pipeline quality natural gas and good combustion practices. Specify if firing a different fuel.	Yes	The heaters will utilize good combustion practices to minimize VOC formation.
			NOx	Burners with the best NOx performance given the burner configuration and gaseous fuel used. Specify the proposed emission rate (performance is an annual average) and provide justification if NOx>0.01 lb/MMBtu. Cost data must be submitted for SCR if firing rate is > 300 MMBtu/hr and burner is >0.01 lb/MMBtu. CEMS required for 100 MMBtu/hr or greater	Yes	The heaters will utilize ultra low NOx burners and good combustion practices to meet an emission limit of 0.011 lb/MMBtu.
			CO	50 ppmv corrected to 3% O2	Yes	The heaters will utilize good combustion practices to meet an emission limit of 50 ppmv corrected to 3% O2.
			SO2	Maximum 0.6% sulfur content any liquid fuel or 5 grains for pipeline quality sweet natural gas. Provide details.	Yes	The heaters will utilize pipeline-quality low sulfur natural gas to minimize SO2 formation.
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Maximum opacity 5%	Yes	The heaters will utilize pipeline-quality low sulfur natural gas and good combustion practices to minimize PM/PM10/PM2.5 formation.
			CO2	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			CH4	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			N2O	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			CO2 Equivalent	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			MSS	Same as normal operation BACT requirements.	Yes	Same as normal operation BACT requirements
New/Modified	DPHEAT11	Heater	VOC	Firing pipeline quality natural gas and good combustion practices. Specify if firing a different fuel.	Yes	The heaters will utilize good combustion practices to minimize VOC formation.
			NOx	Burners with the best NOx performance given the burner configuration and gaseous fuel used. Specify the proposed emission rate (performance is an annual average) and provide justification if NOx>0.01 lb/MMBtu. Cost data must be submitted for SCR if firing rate is > 300 MMBtu/hr and burner is >0.01 lb/MMBtu. CEMS required for 100 MMBtu/hr or greater	Yes	The heaters will utilize ultra low NOx burners and good combustion practices to meet an emission limit of 0.011 lb/MMBtu.
			CO	50 ppmv corrected to 3% O2	Yes	The heaters will utilize good combustion practices to meet an emission limit of 50 ppmv corrected to 3% O2.
			SO2	Maximum 0.6% sulfur content any liquid fuel or 5 grains for pipeline quality sweet natural gas. Provide details.	Yes	The heaters will utilize pipeline-quality low sulfur natural gas to minimize SO2 formation.
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Maximum opacity 5%	Yes	The heaters will utilize pipeline-quality low sulfur natural gas and good combustion practices to minimize PM/PM10/PM2.5 formation.
			CO2	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			CH4	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.

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			N2O	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			CO2 Equivalent	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			MSS	Same as normal operation BACT requirements.	Yes	Same as normal operation BACT requirements
New/Modified	DPHEAT12	Heater	VOC	Firing pipeline quality natural gas and good combustion practices. Specify if firing a different fuel.	Yes	The heaters will utilize good combustion practices to minimize VOC formation.
			NOx	Burners with the best NOx performance given the burner configuration and gaseous fuel used. Specify the proposed emission rate (performance is an annual average) and provide justification if NOx>0.01 lb/MMBtu. Cost data must be submitted for SCR if firing rate is > 300 MMBtu/hr and burner is >0.01 lb/MMBtu. CEMS required for 100 MMBtu/hr or greater	Yes	The heaters will utilize ultra low NOx burners and good combustion practices to meet an emission limit of 0.011 lb/MMBtu.
			CO	50 ppmv corrected to 3% O2	Yes	The heaters will utilize good combustion practices to meet an emission limit of 50 ppmv corrected to 3% O2.
			SO2	Maximum 0.6% sulfur content any liquid fuel or 5 grains for pipeline quality sweet natural gas. Provide details.	Yes	The heaters will utilize pipeline-quality low sulfur natural gas to minimize SO2 formation.
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Maximum opacity 5%	Yes	The heaters will utilize pipeline-quality low sulfur natural gas and good combustion practices to minimize PM/PM10/PM2.5 formation.
			CO2	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			CH4	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			N2O	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			CO2 Equivalent	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			MSS	Same as normal operation BACT requirements.	Yes	Same as normal operation BACT requirements
New/Modified	DPHEAT13	Heater	VOC	Firing pipeline quality natural gas and good combustion practices. Specify if firing a different fuel.	Yes	The heaters will utilize good combustion practices to minimize VOC formation.
			NOx	Burners with the best NOx performance given the burner configuration and gaseous fuel used. Specify the proposed emission rate (performance is an annual average) and provide justification if NOx>0.01 lb/MMBtu. Cost data must be submitted for SCR if firing rate is > 300 MMBtu/hr and burner is >0.01 lb/MMBtu. CEMS required for 100 MMBtu/hr or greater	Yes	The heaters will utilize ultra low NOx burners and good combustion practices to meet an emission limit of 0.011 lb/MMBtu.
			CO	50 ppmv corrected to 3% O2	Yes	The heaters will utilize good combustion practices to meet an emission limit of 50 ppmv corrected to 3% O2.
			SO2	Maximum 0.6% sulfur content any liquid fuel or 5 grains for pipeline quality sweet natural gas. Provide details.	Yes	The heaters will utilize pipeline-quality low sulfur natural gas to minimize SO2 formation.
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Maximum opacity 5%	Yes	The heaters will utilize pipeline-quality low sulfur natural gas and good combustion practices to minimize PM/PM10/PM2.5 formation.
			CO2	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			CH4	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			N2O	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			CO2 Equivalent	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			MSS	Same as normal operation BACT requirements.	Yes	Same as normal operation BACT requirements
New/Modified	DPHEAT14	Heater	VOC	Firing pipeline quality natural gas and good combustion practices. Specify if firing a different fuel.	Yes	The heaters will utilize good combustion practices to minimize VOC formation.

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			NOx	Burners with the best NOx performance given the burner configuration and gaseous fuel used. Specify the proposed emission rate (performance is an annual average) and provide justification if NOx>0.01 lb/MMBtu. Cost data must be submitted for SCR if firing rate is > 300 MMBtu/hr and burner is >0.01 lb/MMBtu. CEMS required for 100 MMBtu/hr or greater	Yes	The heaters will utilize ultra low NOx burners and good combustion practices to meet an emission limit of 0.011 lb/MMBtu.
			CO	50 ppmv corrected to 3% O2	Yes	The heaters will utilize good combustion practices to meet an emission limit of 50 ppmv corrected to 3% O2.
			SO2	Maximum 0.6% sulfur content any liquid fuel or 5 grains for pipeline quality sweet natural gas. Provide details.	Yes	The heaters will utilize pipeline-quality low sulfur natural gas to minimize SO2 formation.
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Maximum opacity 5%	Yes	The heaters will utilize pipeline-quality low sulfur natural gas and good combustion practices to minimize PM/PM10/PM2.5 formation.
			CO2	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			CH4	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			N2O	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			CO2 Equivalent	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			MSS	Same as normal operation BACT requirements.	Yes	Same as normal operation BACT requirements
New/Modified	DPHEAT15	Heater	VOC	Firing pipeline quality natural gas and good combustion practices. Specify if firing a different fuel.	Yes	The heaters will utilize good combustion practices to minimize VOC formation.
			NOx	Burners with the best NOx performance given the burner configuration and gaseous fuel used. Specify the proposed emission rate (performance is an annual average) and provide justification if NOx>0.01 lb/MMBtu. Cost data must be submitted for SCR if firing rate is > 300 MMBtu/hr and burner is >0.01 lb/MMBtu. CEMS required for 100 MMBtu/hr or greater	Yes	The heaters will utilize ultra low NOx burners and good combustion practices to meet an emission limit of 0.011 lb/MMBtu.
			CO	50 ppmv corrected to 3% O2	Yes	The heaters will utilize good combustion practices to meet an emission limit of 50 ppmv corrected to 3% O2.
			SO2	Maximum 0.6% sulfur content any liquid fuel or 5 grains for pipeline quality sweet natural gas. Provide details.	Yes	The heaters will utilize pipeline-quality low sulfur natural gas to minimize SO2 formation.
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Maximum opacity 5%	Yes	The heaters will utilize pipeline-quality low sulfur natural gas and good combustion practices to minimize PM/PM10/PM2.5 formation.
			CO2	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			CH4	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			N2O	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			CO2 Equivalent	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			MSS	Same as normal operation BACT requirements.	Yes	Same as normal operation BACT requirements
New/Modified	DPHEAT16	Heater	VOC	Firing pipeline quality natural gas and good combustion practices. Specify if firing a different fuel.	Yes	The heaters will utilize good combustion practices to minimize VOC formation.
			NOx	Burners with the best NOx performance given the burner configuration and gaseous fuel used. Specify the proposed emission rate (performance is an annual average) and provide justification if NOx>0.01 lb/MMBtu. Cost data must be submitted for SCR if firing rate is > 300 MMBtu/hr and burner is >0.01 lb/MMBtu. CEMS required for 100 MMBtu/hr or greater	Yes	The heaters will utilize ultra low NOx burners and good combustion practices to meet an emission limit of 0.011 lb/MMBtu.
			CO	50 ppmv corrected to 3% O2	Yes	The heaters will utilize good combustion practices to meet an emission limit of 50 ppmv corrected to 3% O2.
			SO2	Maximum 0.6% sulfur content any liquid fuel or 5 grains for pipeline quality sweet natural gas. Provide details.	Yes	The heaters will utilize pipeline-quality low sulfur natural gas to minimize SO2 formation.
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Maximum opacity 5%	Yes	The heaters will utilize pipeline-quality low sulfur natural gas and good combustion practices to minimize PM/PM10/PM2.5 formation.
			CO2	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			CH4	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.

Action Requested	FINs	Unit Type	Pollutant	Current Tier I BACT	Confirm	Additional Notes
			N2O	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			CO2 Equivalent	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			MSS	Same as normal operation BACT requirements.	Yes	Same as normal operation BACT requirements
New/Modified	DPHEAT17	Heater	VOC	Firing pipeline quality natural gas and good combustion practices. Specify if firing a different fuel.	Yes	The heaters will utilize good combustion practices to minimize VOC formation.
			NOx	Burners with the best NOx performance given the burner configuration and gaseous fuel used. Specify the proposed emission rate (performance is an annual average) and provide justification if NOx>0.01 lb/MMBtu. Cost data must be submitted for SCR if firing rate is > 300 MMBtu/hr and burner is >0.01 lb/MMBtu. CEMS required for 100 MMBtu/hr or greater	Yes	The heaters will utilize ultra low NOx burners and good combustion practices to meet an emission limit of 0.011 lb/MMBtu.
			CO	50 ppmv corrected to 3% O2	Yes	The heaters will utilize good combustion practices to meet an emission limit of 50 ppmv corrected to 3% O2.
			SO2	Maximum 0.6% sulfur content any liquid fuel or 5 grains for pipeline quality sweet natural gas. Provide details.	Yes	The heaters will utilize pipeline-quality low sulfur natural gas to minimize SO2 formation.
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Maximum opacity 5%	Yes	The heaters will utilize pipeline-quality low sulfur natural gas and good combustion practices to minimize PM/PM10/PM2.5 formation.
			CO2	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			CH4	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			N2O	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			CO2 Equivalent	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			MSS	Same as normal operation BACT requirements.	Yes	Same as normal operation BACT requirements
New/Modified	DPHEAT18	Heater	VOC	Firing pipeline quality natural gas and good combustion practices. Specify if firing a different fuel.	Yes	The heaters will utilize good combustion practices to minimize VOC formation.
			NOx	Burners with the best NOx performance given the burner configuration and gaseous fuel used. Specify the proposed emission rate (performance is an annual average) and provide justification if NOx>0.01 lb/MMBtu. Cost data must be submitted for SCR if firing rate is > 300 MMBtu/hr and burner is >0.01 lb/MMBtu. CEMS required for 100 MMBtu/hr or greater	Yes	The heaters will utilize ultra low NOx burners and good combustion practices to meet an emission limit of 0.011 lb/MMBtu.
			CO	50 ppmv corrected to 3% O2	Yes	The heaters will utilize good combustion practices to meet an emission limit of 50 ppmv corrected to 3% O2.
			SO2	Maximum 0.6% sulfur content any liquid fuel or 5 grains for pipeline quality sweet natural gas. Provide details.	Yes	The heaters will utilize pipeline-quality low sulfur natural gas to minimize SO2 formation.
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Maximum opacity 5%	Yes	The heaters will utilize pipeline-quality low sulfur natural gas and good combustion practices to minimize PM/PM10/PM2.5 formation.
			CO2	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			CH4	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			N2O	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			CO2 Equivalent	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			MSS	Same as normal operation BACT requirements.	Yes	Same as normal operation BACT requirements
New/Modified	DPHEAT19	Heater	VOC	Firing pipeline quality natural gas and good combustion practices. Specify if firing a different fuel.	Yes	The heaters will utilize good combustion practices to minimize VOC formation.

Action Requested	FINs	Unit Type	Pollutant	Current Tier I BACT	Confirm	Additional Notes
			NOx	Burners with the best NOx performance given the burner configuration and gaseous fuel used. Specify the proposed emission rate (performance is an annual average) and provide justification if NOx>0.01 lb/MMBtu. Cost data must be submitted for SCR if firing rate is > 300 MMBtu/hr and burner is >0.01 lb/MMBtu. CEMS required for 100 MMBtu/hr or greater	Yes	The heaters will utilize ultra low NOx burners and good combustion practices to meet an emission limit of 0.011 lb/MMBtu.
			CO	50 ppmv corrected to 3% O2	Yes	The heaters will utilize good combustion practices to meet an emission limit of 50 ppmv corrected to 3% O2.
			SO2	Maximum 0.6% sulfur content any liquid fuel or 5 grains for pipeline quality sweet natural gas. Provide details.	Yes	The heaters will utilize pipeline-quality low sulfur natural gas to minimize SO2 formation.
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Maximum opacity 5%	Yes	The heaters will utilize pipeline-quality low sulfur natural gas and good combustion practices to minimize PM/PM10/PM2.5 formation.
			CO2	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			CH4	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			N2O	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			CO2 Equivalent	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			MSS	Same as normal operation BACT requirements.	Yes	Same as normal operation BACT requirements
New/Modified	OILVENT1	Process Vent	VOC	Non-halogenated VOCs: flare, any oxidizer, adsorber, absorber/scrubber, etc. Specify technique. Must meet that control device's approved efficiency. Halogenated VOC: Thermal oxidation followed by absorber/scrubber carbon adsorption. Specify technique. Must meet that control device's approved efficiency.	Yes	Air mist eliminators will be used to reduce evaporation.
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. < 0.01 gr/scf	Yes	Air mist eliminators will be used to reduce evaporation.
			MSS	Same as normal operation BACT requirements.	Yes	Same as normal operation BACT requirements
New/Modified	OILVENT2	Process Vent	VOC	Non-halogenated VOCs: flare, any oxidizer, adsorber, absorber/scrubber, etc. Specify technique. Must meet that control device's approved efficiency. Halogenated VOC: Thermal oxidation followed by absorber/scrubber carbon adsorption. Specify technique. Must meet that control device's approved efficiency.	Yes	Air mist eliminators will be used to reduce evaporation.
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. < 0.01 gr/scf	Yes	Air mist eliminators will be used to reduce evaporation.
			MSS	Same as normal operation BACT requirements.	Yes	Same as normal operation BACT requirements
New/Modified	OILVENT3	Process Vent	VOC	Non-halogenated VOCs: flare, any oxidizer, adsorber, absorber/scrubber, etc. Specify technique. Must meet that control device's approved efficiency. Halogenated VOC: Thermal oxidation followed by absorber/scrubber carbon adsorption. Specify technique. Must meet that control device's approved efficiency.	Yes	Air mist eliminators will be used to reduce evaporation.

Action Requested	FINs	Unit Type	Pollutant	Current Tier I BACT	Confirm	Additional Notes
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. < 0.01 gr/scf	Yes	Air mist eliminators will be used to reduce evaporation.
			MSS	Same as normal operation BACT requirements.	Yes	Same as normal operation BACT requirements
New/Modified	OILVENT4	Process Vent	VOC	Non-halogenated VOCs: flare, any oxidizer, adsorber, absorber/scrubber, etc. Specify technique. Must meet that control device's approved efficiency. Halogenated VOC: Thermal oxidation followed by absorber/scrubber carbon adsorption. Specify technique. Must meet that control device's approved efficiency.	Yes	Air mist eliminators will be used to reduce evaporation.
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. < 0.01 gr/scf	Yes	Air mist eliminators will be used to reduce evaporation.
			MSS	Same as normal operation BACT requirements.	Yes	Same as normal operation BACT requirements
New/Modified	OILVENT5	Process Vent	VOC	Non-halogenated VOCs: flare, any oxidizer, adsorber, absorber/scrubber, etc. Specify technique. Must meet that control device's approved efficiency. Halogenated VOC: Thermal oxidation followed by absorber/scrubber carbon adsorption. Specify technique. Must meet that control device's approved efficiency.	Yes	Air mist eliminators will be used to reduce evaporation.
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. < 0.01 gr/scf	Yes	Air mist eliminators will be used to reduce evaporation.
			MSS	Same as normal operation BACT requirements.	Yes	Same as normal operation BACT requirements
New/Modified	OILVENT6	Process Vent	VOC	Non-halogenated VOCs: flare, any oxidizer, adsorber, absorber/scrubber, etc. Specify technique. Must meet that control device's approved efficiency. Halogenated VOC: Thermal oxidation followed by absorber/scrubber carbon adsorption. Specify technique. Must meet that control device's approved efficiency.	Yes	Air mist eliminators will be used to reduce evaporation.
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. < 0.01 gr/scf	Yes	Air mist eliminators will be used to reduce evaporation.

Action Requested	FINs	Unit Type	Pollutant	Current Tier I BACT	Confirm	Additional Notes
			MSS	Same as normal operation BACT requirements.	Yes	Same as normal operation BACT requirements
New/Modified	OILVENT7	Process Vent	VOC	Non-halogenated VOCs: flare, any oxidizer, adsorber, absorber/scrubber, etc. Specify technique. Must meet that control device's approved efficiency. Halogenated VOC: Thermal oxidation followed by absorber/scrubber carbon adsorption. Specify technique. Must meet that control device's approved efficiency.	Yes	Air mist eliminators will be used to reduce evaporation.
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. < 0.01 gr/scf	Yes	Air mist eliminators will be used to reduce evaporation.
			MSS	Same as normal operation BACT requirements.	Yes	Same as normal operation BACT requirements
New/Modified	OILVENT8	Process Vent	VOC	Non-halogenated VOCs: flare, any oxidizer, adsorber, absorber/scrubber, etc. Specify technique. Must meet that control device's approved efficiency. Halogenated VOC: Thermal oxidation followed by absorber/scrubber carbon adsorption. Specify technique. Must meet that control device's approved efficiency.	Yes	Air mist eliminators will be used to reduce evaporation.
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. < 0.01 gr/scf	Yes	Air mist eliminators will be used to reduce evaporation.
			MSS	Same as normal operation BACT requirements.	Yes	Same as normal operation BACT requirements
New/Modified	OILVENT9	Process Vent	VOC	Non-halogenated VOCs: flare, any oxidizer, adsorber, absorber/scrubber, etc. Specify technique. Must meet that control device's approved efficiency. Halogenated VOC: Thermal oxidation followed by absorber/scrubber carbon adsorption. Specify technique. Must meet that control device's approved efficiency.	Yes	Air mist eliminators will be used to reduce evaporation.
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. < 0.01 gr/scf	Yes	Air mist eliminators will be used to reduce evaporation.
			MSS	Same as normal operation BACT requirements.	Yes	Same as normal operation BACT requirements
New/Modified	OILVENT10	Process Vent	VOC	Non-halogenated VOCs: flare, any oxidizer, adsorber, absorber/scrubber, etc. Specify technique. Must meet that control device's approved efficiency. Halogenated VOC: Thermal oxidation followed by absorber/scrubber carbon adsorption. Specify technique. Must meet that control device's approved efficiency.	Yes	Air mist eliminators will be used to reduce evaporation.
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. < 0.01 gr/scf	Yes	Air mist eliminators will be used to reduce evaporation.

Action Requested	FINs	Unit Type	Pollutant	Current Tier I BACT	Confirm	Additional Notes
			MSS	Same as normal operation BACT requirements.	Yes	Same as normal operation BACT requirements
New/Modified	OILVENT11	Process Vent	VOC	Non-halogenated VOCs: flare, any oxidizer, adsorber, absorber/scrubber, etc. Specify technique. Must meet that control device's approved efficiency. Halogenated VOC: Thermal oxidation followed by absorber/scrubber carbon adsorption. Specify technique. Must meet that control device's approved efficiency.	Yes	Air mist eliminators will be used to reduce evaporation.
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. < 0.01 gr/scf	Yes	Air mist eliminators will be used to reduce evaporation.
			MSS	Same as normal operation BACT requirements.	Yes	Same as normal operation BACT requirements
New/Modified	OILVENT12	Process Vent	VOC	Non-halogenated VOCs: flare, any oxidizer, adsorber, absorber/scrubber, etc. Specify technique. Must meet that control device's approved efficiency. Halogenated VOC: Thermal oxidation followed by absorber/scrubber carbon adsorption. Specify technique. Must meet that control device's approved efficiency.	Yes	Air mist eliminators will be used to reduce evaporation.
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. < 0.01 gr/scf	Yes	Air mist eliminators will be used to reduce evaporation.
			MSS	Same as normal operation BACT requirements.	Yes	Same as normal operation BACT requirements
New/Modified	OILVENT13	Process Vent	VOC	Non-halogenated VOCs: flare, any oxidizer, adsorber, absorber/scrubber, etc. Specify technique. Must meet that control device's approved efficiency. Halogenated VOC: Thermal oxidation followed by absorber/scrubber carbon adsorption. Specify technique. Must meet that control device's approved efficiency.	Yes	Air mist eliminators will be used to reduce evaporation.
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. < 0.01 gr/scf	Yes	Air mist eliminators will be used to reduce evaporation.
			MSS	Same as normal operation BACT requirements.	Yes	Same as normal operation BACT requirements

Action Requested	FINs	Unit Type	Pollutant	Current Tier I BACT	Confirm	Additional Notes
New/Modified	OILVENT14	Process Vent	VOC	Non-halogenated VOCs: flare, any oxidizer, adsorber, absorber/scrubber, etc. Specify technique. Must meet that control device's approved efficiency. Halogenated VOC: Thermal oxidation followed by absorber/scrubber carbon adsorption. Specify technique. Must meet that control device's approved efficiency.	Yes	Air mist eliminators will be used to reduce evaporation.
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. < 0.01 gr/scf	Yes	Air mist eliminators will be used to reduce evaporation.
			MSS	Same as normal operation BACT requirements.	Yes	Same as normal operation BACT requirements
New/Modified	OILVENT15	Process Vent	VOC	Non-halogenated VOCs: flare, any oxidizer, adsorber, absorber/scrubber, etc. Specify technique. Must meet that control device's approved efficiency. Halogenated VOC: Thermal oxidation followed by absorber/scrubber carbon adsorption. Specify technique. Must meet that control device's approved efficiency.	Yes	Air mist eliminators will be used to reduce evaporation.
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. < 0.01 gr/scf	Yes	Air mist eliminators will be used to reduce evaporation.
			MSS	Same as normal operation BACT requirements.	Yes	Same as normal operation BACT requirements
New/Modified	OILVENT16	Process Vent	VOC	Non-halogenated VOCs: flare, any oxidizer, adsorber, absorber/scrubber, etc. Specify technique. Must meet that control device's approved efficiency. Halogenated VOC: Thermal oxidation followed by absorber/scrubber carbon adsorption. Specify technique. Must meet that control device's approved efficiency.	Yes	Air mist eliminators will be used to reduce evaporation.
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. < 0.01 gr/scf	Yes	Air mist eliminators will be used to reduce evaporation.
			MSS	Same as normal operation BACT requirements.	Yes	Same as normal operation BACT requirements
New/Modified	OILVENT17	Process Vent	VOC	Non-halogenated VOCs: flare, any oxidizer, adsorber, absorber/scrubber, etc. Specify technique. Must meet that control device's approved efficiency. Halogenated VOC: Thermal oxidation followed by absorber/scrubber carbon adsorption. Specify technique. Must meet that control device's approved efficiency.	Yes	Air mist eliminators will be used to reduce evaporation.
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. < 0.01 gr/scf	Yes	Air mist eliminators will be used to reduce evaporation.

Action Requested	FINs	Unit Type	Pollutant	Current Tier I BACT	Confirm	Additional Notes
			MSS	Same as normal operation BACT requirements.	Yes	Same as normal operation BACT requirements
New/Modified	OILVENT18	Process Vent	VOC	Non-halogenated VOCs: flare, any oxidizer, adsorber, absorber/scrubber, etc. Specify technique. Must meet that control device's approved efficiency. Halogenated VOC: Thermal oxidation followed by absorber/scrubber carbon adsorption. Specify technique. Must meet that control device's approved efficiency.	Yes	Air mist eliminators will be used to reduce evaporation.
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. < 0.01 gr/scf	Yes	Air mist eliminators will be used to reduce evaporation.
			MSS	Same as normal operation BACT requirements.	Yes	Same as normal operation BACT requirements
New/Modified	OILVENT19	Process Vent	VOC	Non-halogenated VOCs: flare, any oxidizer, adsorber, absorber/scrubber, etc. Specify technique. Must meet that control device's approved efficiency. Halogenated VOC: Thermal oxidation followed by absorber/scrubber carbon adsorption. Specify technique. Must meet that control device's approved efficiency.	Yes	Air mist eliminators will be used to reduce evaporation.
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. < 0.01 gr/scf	Yes	Air mist eliminators will be used to reduce evaporation.
			MSS	Same as normal operation BACT requirements.	Yes	Same as normal operation BACT requirements
New/Modified	OILVENT20	Process Vent	VOC	Non-halogenated VOCs: flare, any oxidizer, adsorber, absorber/scrubber, etc. Specify technique. Must meet that control device's approved efficiency. Halogenated VOC: Thermal oxidation followed by absorber/scrubber carbon adsorption. Specify technique. Must meet that control device's approved efficiency.	Yes	Air mist eliminators will be used to reduce evaporation.
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. < 0.01 gr/scf	Yes	Air mist eliminators will be used to reduce evaporation.
			MSS	Same as normal operation BACT requirements.	Yes	Same as normal operation BACT requirements

Action Requested	FINs	Unit Type	Pollutant	Current Tier I BACT	Confirm	Additional Notes
New/Modified	OILVENT21	Process Vent	VOC	Non-halogenated VOCs: flare, any oxidizer, adsorber, absorber/scrubber, etc. Specify technique. Must meet that control device's approved efficiency. Halogenated VOC: Thermal oxidation followed by absorber/scrubber carbon adsorption. Specify technique. Must meet that control device's approved efficiency.	Yes	Air mist eliminators will be used to reduce evaporation.
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. < 0.01 gr/scf	Yes	Air mist eliminators will be used to reduce evaporation.
			MSS	Same as normal operation BACT requirements.	Yes	Same as normal operation BACT requirements
New/Modified	OILVENT22	Process Vent	VOC	Non-halogenated VOCs: flare, any oxidizer, adsorber, absorber/scrubber, etc. Specify technique. Must meet that control device's approved efficiency. Halogenated VOC: Thermal oxidation followed by absorber/scrubber carbon adsorption. Specify technique. Must meet that control device's approved efficiency.	Yes	Air mist eliminators will be used to reduce evaporation.
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. < 0.01 gr/scf	Yes	Air mist eliminators will be used to reduce evaporation.
			MSS	Same as normal operation BACT requirements.	Yes	Same as normal operation BACT requirements
New/Modified	OILVENT23	Process Vent	VOC	Non-halogenated VOCs: flare, any oxidizer, adsorber, absorber/scrubber, etc. Specify technique. Must meet that control device's approved efficiency. Halogenated VOC: Thermal oxidation followed by absorber/scrubber carbon adsorption. Specify technique. Must meet that control device's approved efficiency.	Yes	Air mist eliminators will be used to reduce evaporation.
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. < 0.01 gr/scf	Yes	Air mist eliminators will be used to reduce evaporation.
			MSS	Same as normal operation BACT requirements.	Yes	Same as normal operation BACT requirements
New/Modified	OILVENT24	Process Vent	VOC	Non-halogenated VOCs: flare, any oxidizer, adsorber, absorber/scrubber, etc. Specify technique. Must meet that control device's approved efficiency. Halogenated VOC: Thermal oxidation followed by absorber/scrubber carbon adsorption. Specify technique. Must meet that control device's approved efficiency.	Yes	Air mist eliminators will be used to reduce evaporation.
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. < 0.01 gr/scf	Yes	Air mist eliminators will be used to reduce evaporation.

Action Requested	FINs	Unit Type	Pollutant	Current Tier I BACT	Confirm	Additional Notes
			MSS	Same as normal operation BACT requirements.	Yes	Same as normal operation BACT requirements
New/Modified	OILVENT25	Process Vent	VOC	Non-halogenated VOCs: flare, any oxidizer, adsorber, absorber/scrubber, etc. Specify technique. Must meet that control device's approved efficiency. Halogenated VOC: Thermal oxidation followed by absorber/scrubber carbon adsorption. Specify technique. Must meet that control device's approved efficiency.	Yes	Air mist eliminators will be used to reduce evaporation.
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. < 0.01 gr/scf	Yes	Air mist eliminators will be used to reduce evaporation.
			MSS	Same as normal operation BACT requirements.	Yes	Same as normal operation BACT requirements
New/Modified	OILVENT26	Process Vent	VOC	Non-halogenated VOCs: flare, any oxidizer, adsorber, absorber/scrubber, etc. Specify technique. Must meet that control device's approved efficiency. Halogenated VOC: Thermal oxidation followed by absorber/scrubber carbon adsorption. Specify technique. Must meet that control device's approved efficiency.	Yes	Air mist eliminators will be used to reduce evaporation.
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. < 0.01 gr/scf	Yes	Air mist eliminators will be used to reduce evaporation.
			MSS	Same as normal operation BACT requirements.	Yes	Same as normal operation BACT requirements
New/Modified	OILVENT27	Process Vent	VOC	Non-halogenated VOCs: flare, any oxidizer, adsorber, absorber/scrubber, etc. Specify technique. Must meet that control device's approved efficiency. Halogenated VOC: Thermal oxidation followed by absorber/scrubber carbon adsorption. Specify technique. Must meet that control device's approved efficiency.	Yes	Air mist eliminators will be used to reduce evaporation.
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. < 0.01 gr/scf	Yes	Air mist eliminators will be used to reduce evaporation.
			MSS	Same as normal operation BACT requirements.	Yes	Same as normal operation BACT requirements

Action Requested	FINs	Unit Type	Pollutant	Current Tier I BACT	Confirm	Additional Notes
New/Modified	OILVENT28	Process Vent	VOC	Non-halogenated VOCs: flare, any oxidizer, adsorber, absorber/scrubber, etc. Specify technique. Must meet that control device's approved efficiency. Halogenated VOC: Thermal oxidation followed by absorber/scrubber carbon adsorption. Specify technique. Must meet that control device's approved efficiency.	Yes	Air mist eliminators will be used to reduce evaporation.
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. < 0.01 gr/scf	Yes	Air mist eliminators will be used to reduce evaporation.
			MSS	Same as normal operation BACT requirements.	Yes	Same as normal operation BACT requirements
New/Modified	OILVENT29	Process Vent	VOC	Non-halogenated VOCs: flare, any oxidizer, adsorber, absorber/scrubber, etc. Specify technique. Must meet that control device's approved efficiency. Halogenated VOC: Thermal oxidation followed by absorber/scrubber carbon adsorption. Specify technique. Must meet that control device's approved efficiency.	Yes	Air mist eliminators will be used to reduce evaporation.
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. < 0.01 gr/scf	Yes	Air mist eliminators will be used to reduce evaporation.
			MSS	Same as normal operation BACT requirements.	Yes	Same as normal operation BACT requirements
New/Modified	OILVENT30	Process Vent	VOC	Non-halogenated VOCs: flare, any oxidizer, adsorber, absorber/scrubber, etc. Specify technique. Must meet that control device's approved efficiency. Halogenated VOC: Thermal oxidation followed by absorber/scrubber carbon adsorption. Specify technique. Must meet that control device's approved efficiency.	Yes	Air mist eliminators will be used to reduce evaporation.
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. < 0.01 gr/scf	Yes	Air mist eliminators will be used to reduce evaporation.
			MSS	Same as normal operation BACT requirements.	Yes	Same as normal operation BACT requirements
New/Modified	OILVENT31	Process Vent	VOC	Non-halogenated VOCs: flare, any oxidizer, adsorber, absorber/scrubber, etc. Specify technique. Must meet that control device's approved efficiency. Halogenated VOC: Thermal oxidation followed by absorber/scrubber carbon adsorption. Specify technique. Must meet that control device's approved efficiency.	Yes	Air mist eliminators will be used to reduce evaporation.
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. < 0.01 gr/scf	Yes	Air mist eliminators will be used to reduce evaporation.

Action Requested	FINs	Unit Type	Pollutant	Current Tier I BACT	Confirm	Additional Notes
			MSS	Same as normal operation BACT requirements.	Yes	Same as normal operation BACT requirements
New/Modified	OILVENT32	Process Vent	VOC	Non-halogenated VOCs: flare, any oxidizer, adsorber, absorber/scrubber, etc. Specify technique. Must meet that control device's approved efficiency. Halogenated VOC: Thermal oxidation followed by absorber/scrubber carbon adsorption. Specify technique. Must meet that control device's approved efficiency.	Yes	Air mist eliminators will be used to reduce evaporation.
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. < 0.01 gr/scf	Yes	Air mist eliminators will be used to reduce evaporation.
			MSS	Same as normal operation BACT requirements.	Yes	Same as normal operation BACT requirements
New/Modified	OILVENT33	Process Vent	VOC	Non-halogenated VOCs: flare, any oxidizer, adsorber, absorber/scrubber, etc. Specify technique. Must meet that control device's approved efficiency. Halogenated VOC: Thermal oxidation followed by absorber/scrubber carbon adsorption. Specify technique. Must meet that control device's approved efficiency.	Yes	Air mist eliminators will be used to reduce evaporation.
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. < 0.01 gr/scf	Yes	Air mist eliminators will be used to reduce evaporation.
			MSS	Same as normal operation BACT requirements.	Yes	Same as normal operation BACT requirements
New/Modified	OILVENT34	Process Vent	VOC	Non-halogenated VOCs: flare, any oxidizer, adsorber, absorber/scrubber, etc. Specify technique. Must meet that control device's approved efficiency. Halogenated VOC: Thermal oxidation followed by absorber/scrubber carbon adsorption. Specify technique. Must meet that control device's approved efficiency.	Yes	Air mist eliminators will be used to reduce evaporation.
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. < 0.01 gr/scf	Yes	Air mist eliminators will be used to reduce evaporation.
			MSS	Same as normal operation BACT requirements.	Yes	Same as normal operation BACT requirements

Action Requested	FINs	Unit Type	Pollutant	Current Tier I BACT	Confirm	Additional Notes
New/Modified	OILVENT35	Process Vent	VOC	Non-halogenated VOCs: flare, any oxidizer, adsorber, absorber/scrubber, etc. Specify technique. Must meet that control device's approved efficiency. Halogenated VOC: Thermal oxidation followed by absorber/scrubber carbon adsorption. Specify technique. Must meet that control device's approved efficiency.	Yes	Air mist eliminators will be used to reduce evaporation.
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. < 0.01 gr/scf	Yes	Air mist eliminators will be used to reduce evaporation.
			MSS	Same as normal operation BACT requirements.	Yes	Same as normal operation BACT requirements
New/Modified	TNK-DSL1	Storage Tank (1): Fixed roof with capacity < 25,000 gal or TVP < 0.50 psia	VOC	Fixed roof with submerged fill. Uninsulated exterior surfaces exposed to the sun shall be white or aluminum.	Yes	Tanks will be painted white or aluminum and will utilize submerged fill.
			MSS	Same as normal operation BACT requirements except as listed below. Fixed roof tank draining: VOC: Send liquid to a covered vessel. If there is any standing liquid within the tank, and the tank is opened to the atmosphere or ventilated, the vapor stream must be controlled until there is no standing liquid or the VOC vapor pressure is less than 0.02 psia. Control device must meet BACT. Acid: Drain to covered vessel. If there is any standing liquid within the tank, and the tank is opened to the atmosphere or ventilated, the vapor stream must be controlled until there is no standing liquid or the acid vapor pressure is less than 0.02 psia. Control device must meet BACT.	Yes	Same as normal operation BACT requirements
New/Modified	TNK-DSL2	Storage Tank (1): Fixed roof with capacity < 25,000 gal or TVP < 0.50 psia	VOC	Fixed roof with submerged fill. Uninsulated exterior surfaces exposed to the sun shall be white or aluminum.	Yes	Tanks will be painted white or aluminum and will utilize submerged fill.

Action Requested	FINs	Unit Type	Pollutant	Current Tier I BACT	Confirm	Additional Notes
			MSS	Same as normal operation BACT requirements except as listed below. Fixed roof tank draining: VOC: Send liquid to a covered vessel. If there is any standing liquid within the tank, and the tank is opened to the atmosphere or ventilated, the vapor stream must be controlled until there is no standing liquid or the VOC vapor pressure is less than 0.02 psia. Control device must meet BACT. Acid: Drain to covered vessel. If there is any standing liquid within the tank, and the tank is opened to the atmosphere or ventilated, the vapor stream must be controlled until there is no standing liquid or the acid vapor pressure is less than 0.02 psia. Control device must meet BACT.	Yes	Same as normal operation BACT requirements
New/Modified	TNK-DSL3	Storage Tank (1): Fixed roof with capacity < 25,000 gal or TVP < 0.50 psia	VOC	Fixed roof with submerged fill. Uninsulated exterior surfaces exposed to the sun shall be white or aluminum.	Yes	Tanks will be painted white or aluminum and will utilize submerged fill.
			MSS	Same as normal operation BACT requirements except as listed below. Fixed roof tank draining: VOC: Send liquid to a covered vessel. If there is any standing liquid within the tank, and the tank is opened to the atmosphere or ventilated, the vapor stream must be controlled until there is no standing liquid or the VOC vapor pressure is less than 0.02 psia. Control device must meet BACT. Acid: Drain to covered vessel. If there is any standing liquid within the tank, and the tank is opened to the atmosphere or ventilated, the vapor stream must be controlled until there is no standing liquid or the acid vapor pressure is less than 0.02 psia. Control device must meet BACT.	Yes	Same as normal operation BACT requirements
New/Modified	TNK-DSL4	Storage Tank (1): Fixed roof with capacity < 25,000 gal or TVP < 0.50 psia	VOC	Fixed roof with submerged fill. Uninsulated exterior surfaces exposed to the sun shall be white or aluminum.	Yes	Tanks will be painted white or aluminum and will utilize submerged fill.
			MSS	Same as normal operation BACT requirements except as listed below. Fixed roof tank draining: VOC: Send liquid to a covered vessel. If there is any standing liquid within the tank, and the tank is opened to the atmosphere or ventilated, the vapor stream must be controlled until there is no standing liquid or the VOC vapor pressure is less than 0.02 psia. Control device must meet BACT. Acid: Drain to covered vessel. If there is any standing liquid within the tank, and the tank is opened to the atmosphere or ventilated, the vapor stream must be controlled until there is no standing liquid or the acid vapor pressure is less than 0.02 psia. Control device must meet BACT.	Yes	Same as normal operation BACT requirements

Action Requested	FINs	Unit Type	Pollutant	Current Tier I BACT	Confirm	Additional Notes
New/Modified	TNK-DSL5	Storage Tank (1): Fixed roof with capacity < 25,000 gal or TVP < 0.50 psia	VOC	Fixed roof with submerged fill. Uninsulated exterior surfaces exposed to the sun shall be white or aluminum.	Yes	Tanks will be painted white or aluminum and will utilize submerged fill.
			MSS	Same as normal operation BACT requirements except as listed below. Fixed roof tank draining: VOC: Send liquid to a covered vessel. If there is any standing liquid within the tank, and the tank is opened to the atmosphere or ventilated, the vapor stream must be controlled until there is no standing liquid or the VOC vapor pressure is less than 0.02 psia. Control device must meet BACT. Acid: Drain to covered vessel. If there is any standing liquid within the tank, and the tank is opened to the atmosphere or ventilated, the vapor stream must be controlled until there is no standing liquid or the acid vapor pressure is less than 0.02 psia. Control device must meet BACT.	Yes	Same as normal operation BACT requirements
New/Modified	TNK-DSL6	Storage Tank (1): Fixed roof with capacity < 25,000 gal or TVP < 0.50 psia	VOC	Fixed roof with submerged fill. Uninsulated exterior surfaces exposed to the sun shall be white or aluminum.	Yes	Tanks will be painted white or aluminum and will utilize submerged fill.
			MSS	Same as normal operation BACT requirements except as listed below. Fixed roof tank draining: VOC: Send liquid to a covered vessel. If there is any standing liquid within the tank, and the tank is opened to the atmosphere or ventilated, the vapor stream must be controlled until there is no standing liquid or the VOC vapor pressure is less than 0.02 psia. Control device must meet BACT. Acid: Drain to covered vessel. If there is any standing liquid within the tank, and the tank is opened to the atmosphere or ventilated, the vapor stream must be controlled until there is no standing liquid or the acid vapor pressure is less than 0.02 psia. Control device must meet BACT.	Yes	Same as normal operation BACT requirements
New/Modified	TNK-DSL7	Storage Tank (1): Fixed roof with capacity < 25,000 gal or TVP < 0.50 psia	VOC	Fixed roof with submerged fill. Uninsulated exterior surfaces exposed to the sun shall be white or aluminum.	Yes	Tanks will be painted white or aluminum and will utilize submerged fill.

Action Requested	FINs	Unit Type	Pollutant	Current Tier I BACT	Confirm	Additional Notes
			MSS	Same as normal operation BACT requirements except as listed below. Fixed roof tank draining: VOC: Send liquid to a covered vessel. If there is any standing liquid within the tank, and the tank is opened to the atmosphere or ventilated, the vapor stream must be controlled until there is no standing liquid or the VOC vapor pressure is less than 0.02 psia. Control device must meet BACT. Acid: Drain to covered vessel. If there is any standing liquid within the tank, and the tank is opened to the atmosphere or ventilated, the vapor stream must be controlled until there is no standing liquid or the acid vapor pressure is less than 0.02 psia. Control device must meet BACT.	Yes	Same as normal operation BACT requirements
New/Modified	FPUMP1	Engine: Emergency, Diesel	VOC	Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter.	Yes	Emergency engines fire ultralow sulfur diesel and are limited to 100 hours per year of non-emergency operation. Engines will install a non-resettable runtime meter and will meet requirements of 40 CFR Part 60 Subpart IIII.
			NOx	Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter.	Yes	Emergency engines fire ultralow sulfur diesel and are limited to 100 hours per year of non-emergency operation. Engines will install a non-resettable runtime meter and will meet requirements of 40 CFR Part 60 Subpart IIII.
			CO	Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter.	Yes	Emergency engines fire ultralow sulfur diesel and are limited to 100 hours per year of non-emergency operation. Engines will install a non-resettable runtime meter and will meet requirements of 40 CFR Part 60 Subpart IIII.
			SO2	Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter.	Yes	Emergency engines fire ultralow sulfur diesel and are limited to 100 hours per year of non-emergency operation. Engines will install a non-resettable runtime meter and will meet requirements of 40 CFR Part 60 Subpart IIII.
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter. No visible emissions shall leave the property. Visible emissions shall be determined by a standard of no visible emissions exceeding 30 seconds in duration in any six-minute period as determined using EPA TM 22 or equivalent	Yes	Emergency engines fire ultralow sulfur diesel and are limited to 100 hours per year of non-emergency operation. Engines will install a non-resettable runtime meter and will meet requirements of 40 CFR Part 60 Subpart IIII. No visible emissions shall leave the property and will be determine by EPA Test Method 22 or equivalent.
			CO2	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			CH4	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			N2O	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			CO2 Equivalent	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			MSS	Minimize duration and occurrence of MSS activities.	Yes	Will minimize duration and occurrence of MSS activities.
New/Modified	FPUMP2	Engine: Emergency, Diesel	VOC	Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter.	Yes	Emergency engines fire ultralow sulfur diesel and are limited to 100 hours per year of non-emergency operation. Engines will install a non-resettable runtime meter and will meet requirements of 40 CFR Part 60 Subpart IIII.
			NOx	Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter.	Yes	Emergency engines fire ultralow sulfur diesel and are limited to 100 hours per year of non-emergency operation. Engines will install a non-resettable runtime meter and will meet requirements of 40 CFR Part 60 Subpart IIII.
			CO	Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter.	Yes	Emergency engines fire ultralow sulfur diesel and are limited to 100 hours per year of non-emergency operation. Engines will install a non-resettable runtime meter and will meet requirements of 40 CFR Part 60 Subpart IIII.
			SO2	Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter.	Yes	Emergency engines fire ultralow sulfur diesel and are limited to 100 hours per year of non-emergency operation. Engines will install a non-resettable runtime meter and will meet requirements of 40 CFR Part 60 Subpart IIII.

Action Requested	FINs	Unit Type	Pollutant	Current Tier I BACT	Confirm	Additional Notes
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter. No visible emissions shall leave the property. Visible emissions shall be determined by a standard of no visible emissions exceeding 30 seconds in duration in any six-minute period as determined using EPA TM 22 or equivalent	Yes	Emergency engines fire ultralow sulfur diesel and are limited to 100 hours per year of non-emergency operation. Engines will install a non-resettable runtime meter and will meet requirements of 40 CFR Part 60 Subpart IIII. No visible emissions shall leave the property and will be determine by EPA Test Method 22 or equivalent.
			CO2	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			CH4	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			N2O	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			CO2 Equivalent	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			MSS	Minimize duration and occurrence of MSS activities.	Yes	Will minimize duration and occurrence of MSS activities.
New/Modified	EGEN1	Engine: Emergency, Diesel	VOC	Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter.	Yes	Emergency engines fire ultralow sulfur diesel and are limited to 100 hours per year of non-emergency operation. Engines will install a non-resettable runtime meter and will meet requirements of 40 CFR Part 60 Subpart IIII.
			NOx	Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter.	Yes	Emergency engines fire ultralow sulfur diesel and are limited to 100 hours per year of non-emergency operation. Engines will install a non-resettable runtime meter and will meet requirements of 40 CFR Part 60 Subpart IIII.
			CO	Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter.	Yes	Emergency engines fire ultralow sulfur diesel and are limited to 100 hours per year of non-emergency operation. Engines will install a non-resettable runtime meter and will meet requirements of 40 CFR Part 60 Subpart IIII.
			SO2	Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter.	Yes	Emergency engines fire ultralow sulfur diesel and are limited to 100 hours per year of non-emergency operation. Engines will install a non-resettable runtime meter and will meet requirements of 40 CFR Part 60 Subpart IIII.
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter. No visible emissions shall leave the property. Visible emissions shall be determined by a standard of no visible emissions exceeding 30 seconds in duration in any six-minute period as determined using EPA TM 22 or equivalent	Yes	Emergency engines fire ultralow sulfur diesel and are limited to 100 hours per year of non-emergency operation. Engines will install a non-resettable runtime meter and will meet requirements of 40 CFR Part 60 Subpart IIII. No visible emissions shall leave the property and will be determine by EPA Test Method 22 or equivalent.
			CO2	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			CH4	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			N2O	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			CO2 Equivalent	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			MSS	Minimize duration and occurrence of MSS activities.	Yes	Will minimize duration and occurrence of MSS activities.
New/Modified	EGEN2	Engine: Emergency, Diesel	VOC	Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter.	Yes	Emergency engines fire ultralow sulfur diesel and are limited to 100 hours per year of non-emergency operation. Engines will install a non-resettable runtime meter and will meet requirements of 40 CFR Part 60 Subpart IIII.
			NOx	Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter.	Yes	Emergency engines fire ultralow sulfur diesel and are limited to 100 hours per year of non-emergency operation. Engines will install a non-resettable runtime meter and will meet requirements of 40 CFR Part 60 Subpart IIII.
			CO	Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter.	Yes	Emergency engines fire ultralow sulfur diesel and are limited to 100 hours per year of non-emergency operation. Engines will install a non-resettable runtime meter and will meet requirements of 40 CFR Part 60 Subpart IIII.

Action Requested	FINs	Unit Type	Pollutant	Current Tier I BACT	Confirm	Additional Notes
			SO2	Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter.	Yes	Emergency engines fire ultralow sulfur diesel and are limited to 100 hours per year of non-emergency operation. Engines will install a non-resettable runtime meter and will meet requirements of 40 CFR Part 60 Subpart IIII.
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter. No visible emissions shall leave the property. Visible emissions shall be determined by a standard of no visible emissions exceeding 30 seconds in duration in any six-minute period as determined using EPA TM 22 or equivalent	Yes	Emergency engines fire ultralow sulfur diesel and are limited to 100 hours per year of non-emergency operation. Engines will install a non-resettable runtime meter and will meet requirements of 40 CFR Part 60 Subpart IIII. No visible emissions shall leave the property and will be determine by EPA Test Method 22 or equivalent.
			CO2	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			CH4	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			N2O	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			CO2 Equivalent	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			MSS	Minimize duration and occurrence of MSS activities.	Yes	Will minimize duration and occurrence of MSS activities.
New/Modified	EGEN3	Engine: Emergency, Diesel	VOC	Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter.	Yes	Emergency engines fire ultralow sulfur diesel and are limited to 100 hours per year of non-emergency operation. Engines will install a non-resettable runtime meter and will meet requirements of 40 CFR Part 60 Subpart IIII.
			NOx	Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter.	Yes	Emergency engines fire ultralow sulfur diesel and are limited to 100 hours per year of non-emergency operation. Engines will install a non-resettable runtime meter and will meet requirements of 40 CFR Part 60 Subpart IIII.
			CO	Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter.	Yes	Emergency engines fire ultralow sulfur diesel and are limited to 100 hours per year of non-emergency operation. Engines will install a non-resettable runtime meter and will meet requirements of 40 CFR Part 60 Subpart IIII.
			SO2	Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter.	Yes	Emergency engines fire ultralow sulfur diesel and are limited to 100 hours per year of non-emergency operation. Engines will install a non-resettable runtime meter and will meet requirements of 40 CFR Part 60 Subpart IIII.
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter. No visible emissions shall leave the property. Visible emissions shall be determined by a standard of no visible emissions exceeding 30 seconds in duration in any six-minute period as determined using EPA TM 22 or equivalent	Yes	Emergency engines fire ultralow sulfur diesel and are limited to 100 hours per year of non-emergency operation. Engines will install a non-resettable runtime meter and will meet requirements of 40 CFR Part 60 Subpart IIII. No visible emissions shall leave the property and will be determine by EPA Test Method 22 or equivalent.
			CO2	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			CH4	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			N2O	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			CO2 Equivalent	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			MSS	Minimize duration and occurrence of MSS activities.	Yes	Will minimize duration and occurrence of MSS activities.
New/Modified	EGEN4	Engine: Emergency, Diesel	VOC	Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter.	Yes	Emergency engines fire ultralow sulfur diesel and are limited to 100 hours per year of non-emergency operation. Engines will install a non-resettable runtime meter and will meet requirements of 40 CFR Part 60 Subpart IIII.
			NOx	Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter.	Yes	Emergency engines fire ultralow sulfur diesel and are limited to 100 hours per year of non-emergency operation. Engines will install a non-resettable runtime meter and will meet requirements of 40 CFR Part 60 Subpart IIII.

Action Requested	FINs	Unit Type	Pollutant	Current Tier I BACT	Confirm	Additional Notes
			CO	Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter.	Yes	Emergency engines fire ultralow sulfur diesel and are limited to 100 hours per year of non-emergency operation. Engines will install a non-resettable runtime meter and will meet requirements of 40 CFR Part 60 Subpart IIII.
			SO2	Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter.	Yes	Emergency engines fire ultralow sulfur diesel and are limited to 100 hours per year of non-emergency operation. Engines will install a non-resettable runtime meter and will meet requirements of 40 CFR Part 60 Subpart IIII.
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter. No visible emissions shall leave the property. Visible emissions shall be determined by a standard of no visible emissions exceeding 30 seconds in duration in any six-minute period as determined using EPA TM 22 or equivalent	Yes	Emergency engines fire ultralow sulfur diesel and are limited to 100 hours per year of non-emergency operation. Engines will install a non-resettable runtime meter and will meet requirements of 40 CFR Part 60 Subpart IIII. No visible emissions shall leave the property and will be determine by EPA Test Method 22 or equivalent.
			CO2	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			CH4	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			N2O	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			CO2 Equivalent	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			MSS	Minimize duration and occurrence of MSS activities.	Yes	Will minimize duration and occurrence of MSS activities.
New/Modified	EGEN5	Engine: Emergency, Diesel	VOC	Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter.	Yes	Emergency engines fire ultralow sulfur diesel and are limited to 100 hours per year of non-emergency operation. Engines will install a non-resettable runtime meter and will meet requirements of 40 CFR Part 60 Subpart IIII.
			NOx	Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter.	Yes	Emergency engines fire ultralow sulfur diesel and are limited to 100 hours per year of non-emergency operation. Engines will install a non-resettable runtime meter and will meet requirements of 40 CFR Part 60 Subpart IIII.
			CO	Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter.	Yes	Emergency engines fire ultralow sulfur diesel and are limited to 100 hours per year of non-emergency operation. Engines will install a non-resettable runtime meter and will meet requirements of 40 CFR Part 60 Subpart IIII.
			SO2	Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter.	Yes	Emergency engines fire ultralow sulfur diesel and are limited to 100 hours per year of non-emergency operation. Engines will install a non-resettable runtime meter and will meet requirements of 40 CFR Part 60 Subpart IIII.
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter. No visible emissions shall leave the property. Visible emissions shall be determined by a standard of no visible emissions exceeding 30 seconds in duration in any six-minute period as determined using EPA TM 22 or equivalent	Yes	Emergency engines fire ultralow sulfur diesel and are limited to 100 hours per year of non-emergency operation. Engines will install a non-resettable runtime meter and will meet requirements of 40 CFR Part 60 Subpart IIII. No visible emissions shall leave the property and will be determine by EPA Test Method 22 or equivalent.
			CO2	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			CH4	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			N2O	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			CO2 Equivalent	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			MSS	Minimize duration and occurrence of MSS activities.	Yes	Will minimize duration and occurrence of MSS activities.
New/Modified	EGEN6	Engine: Emergency, Diesel	VOC	Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter.	Yes	Emergency engines fire ultralow sulfur diesel and are limited to 100 hours per year of non-emergency operation. Engines will install a non-resettable runtime meter and will meet requirements of 40 CFR Part 60 Subpart IIII.

Action Requested	FINs	Unit Type	Pollutant	Current Tier I BACT	Confirm	Additional Notes
			NOx	Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter.	Yes	Emergency engines fire ultralow sulfur diesel and are limited to 100 hours per year of non-emergency operation. Engines will install a non-resettable runtime meter and will meet requirements of 40 CFR Part 60 Subpart IIII.
			CO	Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter.	Yes	Emergency engines fire ultralow sulfur diesel and are limited to 100 hours per year of non-emergency operation. Engines will install a non-resettable runtime meter and will meet requirements of 40 CFR Part 60 Subpart IIII.
			SO2	Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter.	Yes	Emergency engines fire ultralow sulfur diesel and are limited to 100 hours per year of non-emergency operation. Engines will install a non-resettable runtime meter and will meet requirements of 40 CFR Part 60 Subpart IIII.
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter. No visible emissions shall leave the property. Visible emissions shall be determined by a standard of no visible emissions exceeding 30 seconds in duration in any six-minute period as determined using EPA TM 22 or equivalent	Yes	Emergency engines fire ultralow sulfur diesel and are limited to 100 hours per year of non-emergency operation. Engines will install a non-resettable runtime meter and will meet requirements of 40 CFR Part 60 Subpart IIII. No visible emissions shall leave the property and will be determine by EPA Test Method 22 or equivalent.
			CO2	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			CH4	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			N2O	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			CO2 Equivalent	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			MSS	Minimize duration and occurrence of MSS activities.	Yes	Will minimize duration and occurrence of MSS activities.
New/Modified	EGEN7	Engine: Emergency, Diesel	VOC	Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter.	Yes	Emergency engines fire ultralow sulfur diesel and are limited to 100 hours per year of non-emergency operation. Engines will install a non-resettable runtime meter and will meet requirements of 40 CFR Part 60 Subpart IIII.
			NOx	Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter.	Yes	Emergency engines fire ultralow sulfur diesel and are limited to 100 hours per year of non-emergency operation. Engines will install a non-resettable runtime meter and will meet requirements of 40 CFR Part 60 Subpart IIII.
			CO	Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter.	Yes	Emergency engines fire ultralow sulfur diesel and are limited to 100 hours per year of non-emergency operation. Engines will install a non-resettable runtime meter and will meet requirements of 40 CFR Part 60 Subpart IIII.
			SO2	Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter.	Yes	Emergency engines fire ultralow sulfur diesel and are limited to 100 hours per year of non-emergency operation. Engines will install a non-resettable runtime meter and will meet requirements of 40 CFR Part 60 Subpart IIII.
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter. No visible emissions shall leave the property. Visible emissions shall be determined by a standard of no visible emissions exceeding 30 seconds in duration in any six-minute period as determined using EPA TM 22 or equivalent	Yes	Emergency engines fire ultralow sulfur diesel and are limited to 100 hours per year of non-emergency operation. Engines will install a non-resettable runtime meter and will meet requirements of 40 CFR Part 60 Subpart IIII. No visible emissions shall leave the property and will be determine by EPA Test Method 22 or equivalent.
			CO2	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			CH4	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			N2O	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			CO2 Equivalent	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			MSS	Minimize duration and occurrence of MSS activities.	Yes	Will minimize duration and occurrence of MSS activities.

Action Requested	FINs	Unit Type	Pollutant	Current Tier I BACT	Confirm	Additional Notes
New/Modified	EGEN8	Engine: Emergency, Diesel	VOC	Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter.	Yes	Emergency engines fire ultralow sulfur diesel and are limited to 100 hours per year of non-emergency operation. Engines will install a non-resettable runtime meter and will meet requirements of 40 CFR Part 60 Subpart IIII.
			NOx	Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter.	Yes	Emergency engines fire ultralow sulfur diesel and are limited to 100 hours per year of non-emergency operation. Engines will install a non-resettable runtime meter and will meet requirements of 40 CFR Part 60 Subpart IIII.
			CO	Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter.	Yes	Emergency engines fire ultralow sulfur diesel and are limited to 100 hours per year of non-emergency operation. Engines will install a non-resettable runtime meter and will meet requirements of 40 CFR Part 60 Subpart IIII.
			SO2	Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter.	Yes	Emergency engines fire ultralow sulfur diesel and are limited to 100 hours per year of non-emergency operation. Engines will install a non-resettable runtime meter and will meet requirements of 40 CFR Part 60 Subpart IIII.
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter. No visible emissions shall leave the property. Visible emissions shall be determined by a standard of no visible emissions exceeding 30 seconds in duration in any six-minute period as determined using EPA TM 22 or equivalent	Yes	Emergency engines fire ultralow sulfur diesel and are limited to 100 hours per year of non-emergency operation. Engines will install a non-resettable runtime meter and will meet requirements of 40 CFR Part 60 Subpart IIII. No visible emissions shall leave the property and will be determine by EPA Test Method 22 or equivalent.
			CO2	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			CH4	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			N2O	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			CO2 Equivalent	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			MSS	Minimize duration and occurrence of MSS activities.	Yes	Will minimize duration and occurrence of MSS activities.
New/Modified	EGEN9	Engine: Emergency, Diesel	VOC	Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter.	Yes	Emergency engines fire ultralow sulfur diesel and are limited to 100 hours per year of non-emergency operation. Engines will install a non-resettable runtime meter and will meet requirements of 40 CFR Part 60 Subpart IIII.
			NOx	Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter.	Yes	Emergency engines fire ultralow sulfur diesel and are limited to 100 hours per year of non-emergency operation. Engines will install a non-resettable runtime meter and will meet requirements of 40 CFR Part 60 Subpart IIII.
			CO	Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter.	Yes	Emergency engines fire ultralow sulfur diesel and are limited to 100 hours per year of non-emergency operation. Engines will install a non-resettable runtime meter and will meet requirements of 40 CFR Part 60 Subpart IIII.
			SO2	Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter.	Yes	Emergency engines fire ultralow sulfur diesel and are limited to 100 hours per year of non-emergency operation. Engines will install a non-resettable runtime meter and will meet requirements of 40 CFR Part 60 Subpart IIII.
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter. No visible emissions shall leave the property. Visible emissions shall be determined by a standard of no visible emissions exceeding 30 seconds in duration in any six-minute period as determined using EPA TM 22 or equivalent	Yes	Emergency engines fire ultralow sulfur diesel and are limited to 100 hours per year of non-emergency operation. Engines will install a non-resettable runtime meter and will meet requirements of 40 CFR Part 60 Subpart IIII. No visible emissions shall leave the property and will be determine by EPA Test Method 22 or equivalent.
			CO2	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			CH4	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			N2O	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			CO2 Equivalent	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.

Action Requested	FINs	Unit Type	Pollutant	Current Tier I BACT	Confirm	Additional Notes
			MSS	Minimize duration and occurrence of MSS activities.	Yes	Will minimize duration and occurrence of MSS activities.
New/Modified	EGEN10	Engine: Emergency, Diesel	VOC	Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter.	Yes	Emergency engines fire ultralow sulfur diesel and are limited to 100 hours per year of non-emergency operation. Engines will install a non-resettable runtime meter and will meet requirements of 40 CFR Part 60 Subpart IIII.
			NOx	Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter.	Yes	Emergency engines fire ultralow sulfur diesel and are limited to 100 hours per year of non-emergency operation. Engines will install a non-resettable runtime meter and will meet requirements of 40 CFR Part 60 Subpart IIII.
			CO	Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter.	Yes	Emergency engines fire ultralow sulfur diesel and are limited to 100 hours per year of non-emergency operation. Engines will install a non-resettable runtime meter and will meet requirements of 40 CFR Part 60 Subpart IIII.
			SO2	Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter.	Yes	Emergency engines fire ultralow sulfur diesel and are limited to 100 hours per year of non-emergency operation. Engines will install a non-resettable runtime meter and will meet requirements of 40 CFR Part 60 Subpart IIII.
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter. No visible emissions shall leave the property. Visible emissions shall be determined by a standard of no visible emissions exceeding 30 seconds in duration in any six-minute period as determined using EPA TM 22 or equivalent	Yes	Emergency engines fire ultralow sulfur diesel and are limited to 100 hours per year of non-emergency operation. Engines will install a non-resettable runtime meter and will meet requirements of 40 CFR Part 60 Subpart IIII. No visible emissions shall leave the property and will be determine by EPA Test Method 22 or equivalent.
			CO2	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			CH4	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			N2O	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			CO2 Equivalent	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			MSS	Minimize duration and occurrence of MSS activities.	Yes	Will minimize duration and occurrence of MSS activities.
New/Modified	EGEN11	Engine: Emergency, Diesel	VOC	Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter.	Yes	Emergency engines fire ultralow sulfur diesel and are limited to 100 hours per year of non-emergency operation. Engines will install a non-resettable runtime meter and will meet requirements of 40 CFR Part 60 Subpart IIII.
			NOx	Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter.	Yes	Emergency engines fire ultralow sulfur diesel and are limited to 100 hours per year of non-emergency operation. Engines will install a non-resettable runtime meter and will meet requirements of 40 CFR Part 60 Subpart IIII.
			CO	Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter.	Yes	Emergency engines fire ultralow sulfur diesel and are limited to 100 hours per year of non-emergency operation. Engines will install a non-resettable runtime meter and will meet requirements of 40 CFR Part 60 Subpart IIII.
			SO2	Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter.	Yes	Emergency engines fire ultralow sulfur diesel and are limited to 100 hours per year of non-emergency operation. Engines will install a non-resettable runtime meter and will meet requirements of 40 CFR Part 60 Subpart IIII.
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter. No visible emissions shall leave the property. Visible emissions shall be determined by a standard of no visible emissions exceeding 30 seconds in duration in any six-minute period as determined using EPA TM 22 or equivalent	Yes	Emergency engines fire ultralow sulfur diesel and are limited to 100 hours per year of non-emergency operation. Engines will install a non-resettable runtime meter and will meet requirements of 40 CFR Part 60 Subpart IIII. No visible emissions shall leave the property and will be determine by EPA Test Method 22 or equivalent.
			CO2	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			CH4	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			N2O	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			CO2 Equivalent	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.

Action Requested	FINs	Unit Type	Pollutant	Current Tier I BACT	Confirm	Additional Notes
			MSS	Minimize duration and occurrence of MSS activities.	Yes	Will minimize duration and occurrence of MSS activities.
New/Modified	EGEN12	Engine: Emergency, Diesel	VOC	Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter.	Yes	Emergency engines fire ultralow sulfur diesel and are limited to 100 hours per year of non-emergency operation. Engines will install a non-resettable runtime meter and will meet requirements of 40 CFR Part 60 Subpart IIII.
			NOx	Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter.	Yes	Emergency engines fire ultralow sulfur diesel and are limited to 100 hours per year of non-emergency operation. Engines will install a non-resettable runtime meter and will meet requirements of 40 CFR Part 60 Subpart IIII.
			CO	Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter.	Yes	Emergency engines fire ultralow sulfur diesel and are limited to 100 hours per year of non-emergency operation. Engines will install a non-resettable runtime meter and will meet requirements of 40 CFR Part 60 Subpart IIII.
			SO2	Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter.	Yes	Emergency engines fire ultralow sulfur diesel and are limited to 100 hours per year of non-emergency operation. Engines will install a non-resettable runtime meter and will meet requirements of 40 CFR Part 60 Subpart IIII.
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter. No visible emissions shall leave the property. Visible emissions shall be determined by a standard of no visible emissions exceeding 30 seconds in duration in any six-minute period as determined using EPA TM 22 or equivalent	Yes	Emergency engines fire ultralow sulfur diesel and are limited to 100 hours per year of non-emergency operation. Engines will install a non-resettable runtime meter and will meet requirements of 40 CFR Part 60 Subpart IIII. No visible emissions shall leave the property and will be determine by EPA Test Method 22 or equivalent.
			CO2	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			CH4	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			N2O	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			CO2 Equivalent	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			MSS	Minimize duration and occurrence of MSS activities.	Yes	Will minimize duration and occurrence of MSS activities.
New/Modified	EGEN13	Engine: Emergency, Diesel	VOC	Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter.	Yes	Emergency engines fire ultralow sulfur diesel and are limited to 100 hours per year of non-emergency operation. Engines will install a non-resettable runtime meter and will meet requirements of 40 CFR Part 60 Subpart IIII.
			NOx	Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter.	Yes	Emergency engines fire ultralow sulfur diesel and are limited to 100 hours per year of non-emergency operation. Engines will install a non-resettable runtime meter and will meet requirements of 40 CFR Part 60 Subpart IIII.
			CO	Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter.	Yes	Emergency engines fire ultralow sulfur diesel and are limited to 100 hours per year of non-emergency operation. Engines will install a non-resettable runtime meter and will meet requirements of 40 CFR Part 60 Subpart IIII.
			SO2	Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter.	Yes	Emergency engines fire ultralow sulfur diesel and are limited to 100 hours per year of non-emergency operation. Engines will install a non-resettable runtime meter and will meet requirements of 40 CFR Part 60 Subpart IIII.
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter. No visible emissions shall leave the property. Visible emissions shall be determined by a standard of no visible emissions exceeding 30 seconds in duration in any six-minute period as determined using EPA TM 22 or equivalent	Yes	Emergency engines fire ultralow sulfur diesel and are limited to 100 hours per year of non-emergency operation. Engines will install a non-resettable runtime meter and will meet requirements of 40 CFR Part 60 Subpart IIII. No visible emissions shall leave the property and will be determine by EPA Test Method 22 or equivalent.
			CO2	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			CH4	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			N2O	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.

Action Requested	FINs	Unit Type	Pollutant	Current Tier I BACT	Confirm	Additional Notes
			CO2 Equivalent	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			MSS	Minimize duration and occurrence of MSS activities.	Yes	Will minimize duration and occurrence of MSS activities.
New/Modified	EGEN14	Engine: Emergency, Diesel	VOC	Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter.	Yes	Emergency engines fire ultralow sulfur diesel and are limited to 100 hours per year of non-emergency operation. Engines will install a non-resettable runtime meter and will meet requirements of 40 CFR Part 60 Subpart IIII.
			NOx	Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter.	Yes	Emergency engines fire ultralow sulfur diesel and are limited to 100 hours per year of non-emergency operation. Engines will install a non-resettable runtime meter and will meet requirements of 40 CFR Part 60 Subpart IIII.
			CO	Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter.	Yes	Emergency engines fire ultralow sulfur diesel and are limited to 100 hours per year of non-emergency operation. Engines will install a non-resettable runtime meter and will meet requirements of 40 CFR Part 60 Subpart IIII.
			SO2	Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter.	Yes	Emergency engines fire ultralow sulfur diesel and are limited to 100 hours per year of non-emergency operation. Engines will install a non-resettable runtime meter and will meet requirements of 40 CFR Part 60 Subpart IIII.
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter. No visible emissions shall leave the property. Visible emissions shall be determined by a standard of no visible emissions exceeding 30 seconds in duration in any six-minute period as determined using EPA TM 22 or equivalent	Yes	Emergency engines fire ultralow sulfur diesel and are limited to 100 hours per year of non-emergency operation. Engines will install a non-resettable runtime meter and will meet requirements of 40 CFR Part 60 Subpart IIII. No visible emissions shall leave the property and will be determine by EPA Test Method 22 or equivalent.
			CO2	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			CH4	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			N2O	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			CO2 Equivalent	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			MSS	Minimize duration and occurrence of MSS activities.	Yes	Will minimize duration and occurrence of MSS activities.
New/Modified	EGEN15	Engine: Emergency, Diesel	VOC	Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter.	Yes	Emergency engines fire ultralow sulfur diesel and are limited to 100 hours per year of non-emergency operation. Engines will install a non-resettable runtime meter and will meet requirements of 40 CFR Part 60 Subpart IIII.
			NOx	Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter.	Yes	Emergency engines fire ultralow sulfur diesel and are limited to 100 hours per year of non-emergency operation. Engines will install a non-resettable runtime meter and will meet requirements of 40 CFR Part 60 Subpart IIII.
			CO	Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter.	Yes	Emergency engines fire ultralow sulfur diesel and are limited to 100 hours per year of non-emergency operation. Engines will install a non-resettable runtime meter and will meet requirements of 40 CFR Part 60 Subpart IIII.
			SO2	Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter.	Yes	Emergency engines fire ultralow sulfur diesel and are limited to 100 hours per year of non-emergency operation. Engines will install a non-resettable runtime meter and will meet requirements of 40 CFR Part 60 Subpart IIII.
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter. No visible emissions shall leave the property. Visible emissions shall be determined by a standard of no visible emissions exceeding 30 seconds in duration in any six-minute period as determined using EPA TM 22 or equivalent	Yes	Emergency engines fire ultralow sulfur diesel and are limited to 100 hours per year of non-emergency operation. Engines will install a non-resettable runtime meter and will meet requirements of 40 CFR Part 60 Subpart IIII. No visible emissions shall leave the property and will be determine by EPA Test Method 22 or equivalent.
			CO2	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.

Action Requested	FINs	Unit Type	Pollutant	Current Tier I BACT	Confirm	Additional Notes
			CH4	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			N2O	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			CO2 Equivalent	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			MSS	Minimize duration and occurrence of MSS activities.	Yes	Will minimize duration and occurrence of MSS activities.
New/Modified	ENGINE-1	Engine: Internal Combustion Engine, Spark Ignited	VOC	1.0 g/bhp-hr achieved through good combustion practices.	Yes	The supplemental engines will emit no more than 0.7 g/hp-hr in accordance with 40 CFR Subpart JJJJ requirements.
			NOx	1.0 g/bhp-hr for engines less than 500 hp, 0.5 g/bhp-hr for engines greater than or equal to 500 hp. 0.7 g/bhp-hr is acceptable with vendor guarantee. Achieved through good combustion practices. Provide detail about engine size and numeric value. Rich burn engine: catalytic converter required and no liquid fuel allowed except for a limited number of backup hours. Provide detail of fuel and number of hours requested.	Yes	The supplemental engines will emit no more than 0.7 g/hp-hr based on vendor guarantee.
			CO	3.0 g/hp-hr achieved through good combustion practices.	Yes	The supplemental engines will emit no more than 2 g/hp-hr in accordance with 40 CFR Subpart JJJJ requirements.
			SO2	Good combustion practices. Limited to firing fuels which meet the requirements of 40 CFR § 80.510(c).	Yes	The supplemental engines will burn pipeline-quality low sulfur natural gas.
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Good combustion practices. Limited to firing fuels which meet the requirements of 40 CFR § 80.510(c). No visible emissions shall leave the property. Visible emissions shall be determined by a standard of no visible emissions exceeding 30 seconds in duration in any six-minute period as determined using EPA TM 22 or equivalent.	Yes	The supplemental engines will burn pipeline-quality low sulfur natural gas. Good combustion practices will be utilized to limit PM/PM10/PM2.5 formation. No visible emissions shall leave the property and will be determine by EPA Test Method 22 or equivalent.
			CO2	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			CH4	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			N2O	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			CO2 Equivalent	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			MSS	Minimize duration and occurrence of MSS activities. NOx and CO: provide case-by-case analysis. Pipelines: VOC in compressor, suction line, and discharge line may be vented.	Yes	Will minimize duration and occurrence of MSS activities.
New/Modified	ENGINE-2	Engine: Internal Combustion Engine, Spark Ignited	VOC	1.0 g/bhp-hr achieved through good combustion practices.	Yes	The supplemental engines will emit no more than 0.7 g/hp-hr in accordance with 40 CFR Subpart JJJJ requirements.
			NOx	1.0 g/bhp-hr for engines less than 500 hp, 0.5 g/bhp-hr for engines greater than or equal to 500 hp. 0.7 g/bhp-hr is acceptable with vendor guarantee. Achieved through good combustion practices. Provide detail about engine size and numeric value. Rich burn engine: catalytic converter required and no liquid fuel allowed except for a limited number of backup hours. Provide detail of fuel and number of hours requested.	Yes	The supplemental engines will emit no more than 0.7 g/hp-hr based on vendor guarantee.
			CO	3.0 g/hp-hr achieved through good combustion practices.	Yes	The supplemental engines will emit no more than 2 g/hp-hr in accordance with 40 CFR Subpart JJJJ requirements.
			SO2	Good combustion practices. Limited to firing fuels which meet the requirements of 40 CFR § 80.510(c).	Yes	The supplemental engines will burn pipeline-quality low sulfur natural gas.
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Good combustion practices. Limited to firing fuels which meet the requirements of 40 CFR § 80.510(c). No visible emissions shall leave the property. Visible emissions shall be determined by a standard of no visible emissions exceeding 30 seconds in duration in any six-minute period as determined using EPA TM 22 or equivalent.	Yes	The supplemental engines will burn pipeline-quality low sulfur natural gas. Good combustion practices will be utilized to limit PM/PM10/PM2.5 formation. No visible emissions shall leave the property and will be determine by EPA Test Method 22 or equivalent.
			CO2	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			CH4	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			N2O	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.

Action Requested	FINs	Unit Type	Pollutant	Current Tier I BACT	Confirm	Additional Notes
			CO2 Equivalent	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Please refer to BACT writeup in application for detailed discussion.
			MSS	Minimize duration and occurrence of MSS activities. NOx and CO: provide case-by-case analysis. Pipelines: VOC in compressor, suction line, and discharge line may be vented.	Yes	Will minimize duration and occurrence of MSS activities.
New/Modified	MSSFUG	MSS Activities	VOC	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Maintenance events will be limited in number to those required to maintain proper function of equipment.
			NOx	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Maintenance events will be limited in number to those required to maintain proper function of equipment.
			CO	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Maintenance events will be limited in number to those required to maintain proper function of equipment.
			NH3	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Maintenance events will be limited in number to those required to maintain proper function of equipment.
			H2S	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Maintenance events will be limited in number to those required to maintain proper function of equipment.
			PM	The emission reduction techniques for PM10 and PM2.5 will follow the technique for PM. Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Maintenance events will be limited in number to those required to maintain proper function of equipment.
			CO2	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Maintenance events will be limited in number to those required to maintain proper function of equipment.
			CH4	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Maintenance events will be limited in number to those required to maintain proper function of equipment.
			CO2 Equivalent	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Maintenance events will be limited in number to those required to maintain proper function of equipment.
			MSS	Not required since this is a MSS unit type.	Yes	
New/Modified	FUG-SF6	Fugitives: Piping and Equipment Leak	SF6	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Use of state-of-the-art enclosed-pressure SF6 circuit breakers with leak detection.
			CO2 Equivalent	Fill out the Additional Notes column to demonstrate how BACT will be met.	Yes	Use of state-of-the-art enclosed-pressure SF6 circuit breakers with leak detection.
			MSS	Same as normal operation BACT requirements.	Yes	Same as normal operation BACT requirements

FIN	Unit Type	Pollutant	Minimum Monitoring Requirements	Confirm	Additional Notes for Monitoring	Proposed Measurement Technique (only complete for pollutants with a project increase above the PSD	Additional Notes for Measuring
NGFUG	Fugitives: Piping and Equipment Leak	VOC	Use EPA Method 21 to monitor for leaks from seals on pumps, compressors, agitator and valve seals on piping components in light liquid and gas VOC service quarterly. Gas or hydraulic check new and replaced connectors prior to returning to service, or monitor with Method 21 within 15 days of returning to service. Leak detection and repair (LDAR) Program 28M has a leak definition where repair action is required at 10,000 ppmv. LDAR Program 28 VHP has a leak definition where repair action is required at 500 ppmv for valves and connectors and 2000 ppmv for pumps, compressors and agitators. Check connectors weekly using audio, visual or olfactory (AVO) senses to observe leaks. Record results and corrective action taken	Yes	Fugitive components handle natural gas and ammonia solution. As such, there is not a significant VOC fraction of handled material.	Other:	Not applicable
		H2S	Look for leaks twice per shift using audio, visual or olfactory (AVO) senses to observe leaks. Record results and corrective action taken.	Yes	H2S only present in very low quantities, less than 1/4 grain per 100 scf. As such, AVO should not be required.	Other:	Not applicable
		CO2	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor natural gas fuel composition.	Other:	Monitor natural gas fuel composition.
		CH4	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor natural gas fuel composition.	Other:	Monitor natural gas fuel composition.
		CO2 Equivalent	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor natural gas fuel composition.	Other:	Monitor natural gas fuel composition.
NH3FUG	Fugitives: Piping and Equipment Leak	NH3	Look for leaks twice per shift using audio, visual or olfactory (AVO) senses to observe leaks. Record results and corrective action taken.	Yes	A twice per shift AVO program will be implemented for components in ammonia service. Results will be recorded and correction action taken as applicable.	Record keeping	
CO-1	Cooling Tower	PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Cooling water circulation rate measured hourly unless maximum circulation rate assumed. Large (>50,000 gpm circulation rate): Total Dissolved Solids (TDS) in the cooling water daily then reduced to weekly and quarterly with daily conductivity measurement that is correlated. Small (<50,000 gpm circulation rate): Total Dissolved Solids (TDS) in the cooling water measured weekly	Yes	The maximum design circulation rate will be used. As the circulation rate is less than 50,000 gallons per minute, the TDS will be measured at least weekly.	Record keeping	
CO-2	Cooling Tower	PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Cooling water circulation rate measured hourly unless maximum circulation rate assumed. Large (>50,000 gpm circulation rate): Total Dissolved Solids (TDS) in the cooling water daily then reduced to weekly and quarterly with daily conductivity measurement that is correlated. Small (<50,000 gpm circulation rate): Total Dissolved Solids (TDS) in the cooling water measured weekly	Yes	The maximum design circulation rate will be used. As the circulation rate is less than 50,000 gallons per minute, the TDS will be measured at least weekly.	Record keeping	

CO-3	Cooling Tower	PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Cooling water circulation rate measured hourly unless maximum circulation rate assumed. Large (>50,000 gpm circulation rate): Total Dissolved Solids (TDS) in the cooling water daily then reduced to weekly and quarterly with daily conductivity measurement that is correlated. Small (<50,000 gpm circulation rate): Total Dissolved Solids (TDS) in the cooling water measured weekly	Yes	The maximum design circulation rate will be used. As the circulation rate is less than 50,000 gallons per minute, the TDS will be measured at least weekly.	Record keeping	
CO-4	Cooling Tower	PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Cooling water circulation rate measured hourly unless maximum circulation rate assumed. Large (>50,000 gpm circulation rate): Total Dissolved Solids (TDS) in the cooling water daily then reduced to weekly and quarterly with daily conductivity measurement that is correlated. Small (<50,000 gpm circulation rate): Total Dissolved Solids (TDS) in the cooling water measured weekly	Yes	The maximum design circulation rate will be used. As the circulation rate is less than 50,000 gallons per minute, the TDS will be measured at least weekly.	Record keeping	
CO-5	Cooling Tower	PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Cooling water circulation rate measured hourly unless maximum circulation rate assumed. Large (>50,000 gpm circulation rate): Total Dissolved Solids (TDS) in the cooling water daily then reduced to weekly and quarterly with daily conductivity measurement that is correlated. Small (<50,000 gpm circulation rate): Total Dissolved Solids (TDS) in the cooling water measured weekly	Yes	The maximum design circulation rate will be used. As the circulation rate is less than 50,000 gallons per minute, the TDS will be measured at least weekly.	Record keeping	
CO-6	Cooling Tower	PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Cooling water circulation rate measured hourly unless maximum circulation rate assumed. Large (>50,000 gpm circulation rate): Total Dissolved Solids (TDS) in the cooling water daily then reduced to weekly and quarterly with daily conductivity measurement that is correlated. Small (<50,000 gpm circulation rate): Total Dissolved Solids (TDS) in the cooling water measured weekly	Yes	The maximum design circulation rate will be used. As the circulation rate is less than 50,000 gallons per minute, the TDS will be measured at least weekly.	Record keeping	

CO-7	Cooling Tower	PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Cooling water circulation rate measured hourly unless maximum circulation rate assumed. Large (>50,000 gpm circulation rate): Total Dissolved Solids (TDS) in the cooling water daily then reduced to weekly and quarterly with daily conductivity measurement that is correlated. Small (<50,000 gpm circulation rate): Total Dissolved Solids (TDS) in the cooling water measured weekly	Yes	The maximum design circulation rate will be used. As the circulation rate is less than 50,000 gallons per minute, the TDS will be measured at least weekly.	Record keeping	
CO-8	Cooling Tower	PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Cooling water circulation rate measured hourly unless maximum circulation rate assumed. Large (>50,000 gpm circulation rate): Total Dissolved Solids (TDS) in the cooling water daily then reduced to weekly and quarterly with daily conductivity measurement that is correlated. Small (<50,000 gpm circulation rate): Total Dissolved Solids (TDS) in the cooling water measured weekly	Yes	The maximum design circulation rate will be used. As the circulation rate is less than 50,000 gallons per minute, the TDS will be measured at least weekly.	Record keeping	
CO-9	Cooling Tower	PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Cooling water circulation rate measured hourly unless maximum circulation rate assumed. Large (>50,000 gpm circulation rate): Total Dissolved Solids (TDS) in the cooling water daily then reduced to weekly and quarterly with daily conductivity measurement that is correlated. Small (<50,000 gpm circulation rate): Total Dissolved Solids (TDS) in the cooling water measured weekly	Yes	The maximum design circulation rate will be used. As the circulation rate is less than 50,000 gallons per minute, the TDS will be measured at least weekly.	Record keeping	
CO-10	Cooling Tower	PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Cooling water circulation rate measured hourly unless maximum circulation rate assumed. Large (>50,000 gpm circulation rate): Total Dissolved Solids (TDS) in the cooling water daily then reduced to weekly and quarterly with daily conductivity measurement that is correlated. Small (<50,000 gpm circulation rate): Total Dissolved Solids (TDS) in the cooling water measured weekly	Yes	The maximum design circulation rate will be used. As the circulation rate is less than 50,000 gallons per minute, the TDS will be measured at least weekly.	Record keeping	

CO-11	Cooling Tower	PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Cooling water circulation rate measured hourly unless maximum circulation rate assumed. Large (>50,000 gpm circulation rate): Total Dissolved Solids (TDS) in the cooling water daily then reduced to weekly and quarterly with daily conductivity measurement that is correlated. Small (<50,000 gpm circulation rate): Total Dissolved Solids (TDS) in the cooling water measured weekly	Yes	The maximum design circulation rate will be used. As the circulation rate is less than 50,000 gallons per minute, the TDS will be measured at least weekly.	Record keeping	
CO-12	Cooling Tower	PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Cooling water circulation rate measured hourly unless maximum circulation rate assumed. Large (>50,000 gpm circulation rate): Total Dissolved Solids (TDS) in the cooling water daily then reduced to weekly and quarterly with daily conductivity measurement that is correlated. Small (<50,000 gpm circulation rate): Total Dissolved Solids (TDS) in the cooling water measured weekly	Yes	The maximum design circulation rate will be used. As the circulation rate is less than 50,000 gallons per minute, the TDS will be measured at least weekly.	Record keeping	
CO-13	Cooling Tower	PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Cooling water circulation rate measured hourly unless maximum circulation rate assumed. Large (>50,000 gpm circulation rate): Total Dissolved Solids (TDS) in the cooling water daily then reduced to weekly and quarterly with daily conductivity measurement that is correlated. Small (<50,000 gpm circulation rate): Total Dissolved Solids (TDS) in the cooling water measured weekly	Yes	The maximum design circulation rate will be used. As the circulation rate is less than 50,000 gallons per minute, the TDS will be measured at least weekly.	Record keeping	
CO-14	Cooling Tower	PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Cooling water circulation rate measured hourly unless maximum circulation rate assumed. Large (>50,000 gpm circulation rate): Total Dissolved Solids (TDS) in the cooling water daily then reduced to weekly and quarterly with daily conductivity measurement that is correlated. Small (<50,000 gpm circulation rate): Total Dissolved Solids (TDS) in the cooling water measured weekly	Yes	The maximum design circulation rate will be used. As the circulation rate is less than 50,000 gallons per minute, the TDS will be measured at least weekly.	Record keeping	

CO-15	Cooling Tower	PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Cooling water circulation rate measured hourly unless maximum circulation rate assumed. Large (>50,000 gpm circulation rate): Total Dissolved Solids (TDS) in the cooling water daily then reduced to weekly and quarterly with daily conductivity measurement that is correlated. Small (<50,000 gpm circulation rate): Total Dissolved Solids (TDS) in the cooling water measured weekly	Yes	The maximum design circulation rate will be used. As the circulation rate is less than 50,000 gallons per minute, the TDS will be measured at least weekly.	Record keeping	
CO-16	Cooling Tower	PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Cooling water circulation rate measured hourly unless maximum circulation rate assumed. Large (>50,000 gpm circulation rate): Total Dissolved Solids (TDS) in the cooling water daily then reduced to weekly and quarterly with daily conductivity measurement that is correlated. Small (<50,000 gpm circulation rate): Total Dissolved Solids (TDS) in the cooling water measured weekly	Yes	The maximum design circulation rate will be used. As the circulation rate is less than 50,000 gallons per minute, the TDS will be measured at least weekly.	Record keeping	
CO-17	Cooling Tower	PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Cooling water circulation rate measured hourly unless maximum circulation rate assumed. Large (>50,000 gpm circulation rate): Total Dissolved Solids (TDS) in the cooling water daily then reduced to weekly and quarterly with daily conductivity measurement that is correlated. Small (<50,000 gpm circulation rate): Total Dissolved Solids (TDS) in the cooling water measured weekly	Yes	The maximum design circulation rate will be used. As the circulation rate is less than 50,000 gallons per minute, the TDS will be measured at least weekly.	Record keeping	
CO-18	Cooling Tower	PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Cooling water circulation rate measured hourly unless maximum circulation rate assumed. Large (>50,000 gpm circulation rate): Total Dissolved Solids (TDS) in the cooling water daily then reduced to weekly and quarterly with daily conductivity measurement that is correlated. Small (<50,000 gpm circulation rate): Total Dissolved Solids (TDS) in the cooling water measured weekly	Yes	The maximum design circulation rate will be used. As the circulation rate is less than 50,000 gallons per minute, the TDS will be measured at least weekly.	Record keeping	

CO-19	Cooling Tower	PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Cooling water circulation rate measured hourly unless maximum circulation rate assumed.	Yes	The maximum design circulation rate will be used. As the circulation rate is less than 50,000 gallons per minute, the TDS will be measured at least weekly.	Record keeping	
CT-1A	Turbine: Simple Cycle, Natural Gas	VOC	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically.	Other:	Monitoring
		NOx	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. A CEMS will be installed, with measurements at least four times per hour and averaged hourly.	CEMS	
		CO	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. A CEMS will be installed, with measurements at least four times per hour and averaged hourly.	CEMS	
		NH3	SCR requires continuous monitoring for slip reduced to an hourly average.	Yes	The SCR will be continuously monitored to reduce ammonia slip.	CEMS	
		SO2	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically.	Other:	Monitoring
		H2SO4	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	H2SO4 results from sulfur present in fuels.	Other:	The fuel firing rate will be continuously monitored.
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Quarterly visible emission observations to demonstrate compliance with opacity requirements. Continuous fuel flow monitor data used to calculate emission rate. Data collected four times per hour and averaged hourly.	Yes	A continuous fuel monitor will be installed, with data collected at least four times per hour and averaged hourly. Quarterly visible emissions observations will be performed to demonstrate compliance.	Record keeping	
		CO2 Equivalent	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
CT-2A	Turbine: Simple Cycle, Natural Gas	VOC	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically.	Other:	Monitoring
		NOx	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. A CEMS will be installed, with measurements at least four times per hour and averaged hourly.	CEMS	
		CO	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. A CEMS will be installed, with measurements at least four times per hour and averaged hourly.	CEMS	
		NH3	SCR requires continuous monitoring for slip reduced to an hourly average.	Yes	The SCR will be continuously monitored to reduce ammonia slip.	CEMS	
		SO2	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically.	Other:	Monitoring
		H2SO4	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	H2SO4 results from sulfur present in fuels.	Other:	The fuel firing rate will be continuously monitored.
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Quarterly visible emission observations to demonstrate compliance with opacity requirements. Continuous fuel flow monitor data used to calculate emission rate. Data collected four times per hour and averaged hourly.	Yes	A continuous fuel monitor will be installed, with data collected at least four times per hour and averaged hourly. Quarterly visible emissions observations will be performed to demonstrate compliance.	Record keeping	
		CO2 Equivalent	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.

CT-3A	Turbine: Simple Cycle, Natural Gas	VOC	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically.	Other:	Monitoring
		NOx	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. A CEMS will be installed, with measurements at least four times per hour and averaged hourly.	CEMS	
		CO	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. A CEMS will be installed, with measurements at least four times per hour and averaged hourly.	CEMS	
		NH3	SCR requires continuous monitoring for slip reduced to an hourly average.	Yes	The SCR will be continuously monitored to reduce ammonia slip.	CEMS	
		SO2	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically.	Other:	Monitoring
		H2SO4	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	H2SO4 results from sulfur present in fuels.	Other:	The fuel firing rate will be continuously monitored.
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Quarterly visible emission observations to demonstrate compliance with opacity requirements. Continuous fuel flow monitor data used to calculate emission rate. Data collected four times per hour and averaged hourly.	Yes	A continuous fuel monitor will be installed, with data collected at least four times per hour and averaged hourly. Quarterly visible emissions observations will be performed to demonstrate compliance.	Record keeping	
		CO2 Equivalent	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
CT-4A	Turbine: Simple Cycle, Natural Gas	VOC	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically.	Other:	Monitoring
		NOx	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. A CEMS will be installed, with measurements at least four times per hour and averaged hourly.	CEMS	
		CO	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. A CEMS will be installed, with measurements at least four times per hour and averaged hourly.	CEMS	
		NH3	SCR requires continuous monitoring for slip reduced to an hourly average.	Yes	The SCR will be continuously monitored to reduce ammonia slip.	CEMS	
		SO2	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically.	Other:	Monitoring
		H2SO4	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	H2SO4 results from sulfur present in fuels.	Other:	The fuel firing rate will be continuously monitored.
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Quarterly visible emission observations to demonstrate compliance with opacity requirements. Continuous fuel flow monitor data used to calculate emission rate. Data collected four times per hour and averaged hourly.	Yes	A continuous fuel monitor will be installed, with data collected at least four times per hour and averaged hourly. Quarterly visible emissions observations will be performed to demonstrate compliance.	Record keeping	
		CO2 Equivalent	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
CT-5A	Turbine: Simple Cycle, Natural Gas	VOC	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically.	Other:	Monitoring
		NOx	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. A CEMS will be installed, with measurements at least four times per hour and averaged hourly.	CEMS	

		CO	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. A CEMS will be installed, with measurements at least four times per hour and averaged hourly.	CEMS	
		NH3	SCR requires continuous monitoring for slip reduced to an hourly average.	Yes	The SCR will be continuously monitored to reduce ammonia slip.	CEMS	
		SO2	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically.	Other:	Monitoring
		H2SO4	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	H2SO4 results from sulfur present in fuels.	Other:	The fuel firing rate will be continuously monitored.
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Quarterly visible emission observations to demonstrate compliance with opacity requirements. Continuous fuel flow monitor data used to calculate emission rate. Data collected four times per hour and averaged hourly.	Yes	A continuous fuel monitor will be installed, with data collected at least four times per hour and averaged hourly. Quarterly visible emissions observations will be performed to demonstrate compliance.	Record keeping	
		CO2 Equivalent	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
CT-6A	Turbine: Simple Cycle, Natural Gas	VOC	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically.	Other:	Monitoring
		NOx	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. A CEMS will be installed, with measurements at least four times per hour and averaged hourly.	CEMS	
		CO	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. A CEMS will be installed, with measurements at least four times per hour and averaged hourly.	CEMS	
		NH3	SCR requires continuous monitoring for slip reduced to an hourly average.	Yes	The SCR will be continuously monitored to reduce ammonia slip.	CEMS	
		SO2	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically.	Other:	Monitoring
		H2SO4	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	H2SO4 results from sulfur present in fuels.	Other:	The fuel firing rate will be continuously monitored.
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Quarterly visible emission observations to demonstrate compliance with opacity requirements. Continuous fuel flow monitor data used to calculate emission rate. Data collected four times per hour and averaged hourly.	Yes	A continuous fuel monitor will be installed, with data collected at least four times per hour and averaged hourly. Quarterly visible emissions observations will be performed to demonstrate compliance.	Record keeping	
		CO2 Equivalent	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
CT-7A	Turbine: Simple Cycle, Natural Gas	VOC	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically.	Other:	Monitoring
		NOx	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. A CEMS will be installed, with measurements at least four times per hour and averaged hourly.	CEMS	
		CO	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. A CEMS will be installed, with measurements at least four times per hour and averaged hourly.	CEMS	
		NH3	SCR requires continuous monitoring for slip reduced to an hourly average.	Yes	The SCR will be continuously monitored to reduce ammonia slip.	CEMS	
		SO2	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically.	Other:	Monitoring
		H2SO4	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	H2SO4 results from sulfur present in fuels.	Other:	The fuel firing rate will be continuously monitored.

		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Quarterly visible emission observations to demonstrate compliance with opacity requirements. Continuous fuel flow monitor data used to calculate emission rate. Data collected four times per hour and averaged hourly.	Yes	A continuous fuel monitor will be installed, with data collected at least four times per hour and averaged hourly. Quarterly visible emissions observations will be performed to demonstrate compliance.	Record keeping	
		CO2 Equivalent	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
CT-8A	Turbine: Simple Cycle, Natural Gas	VOC	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically.	Other:	Monitoring
		NOx	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. A CEMS will be installed, with measurements at least four times per hour and averaged hourly.	CEMS	
		CO	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. A CEMS will be installed, with measurements at least four times per hour and averaged hourly.	CEMS	
		NH3	SCR requires continuous monitoring for slip reduced to an hourly average.	Yes	The SCR will be continuously monitored to reduce ammonia slip.	CEMS	
		SO2	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically.	Other:	Monitoring
		H2SO4	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	H2SO4 results from sulfur present in fuels.	Other:	The fuel firing rate will be continuously monitored.
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Quarterly visible emission observations to demonstrate compliance with opacity requirements. Continuous fuel flow monitor data used to calculate emission rate. Data collected four times per hour and averaged hourly.	Yes	A continuous fuel monitor will be installed, with data collected at least four times per hour and averaged hourly. Quarterly visible emissions observations will be performed to demonstrate compliance.	Record keeping	
		CO2 Equivalent	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
CT-9A	Turbine: Simple Cycle, Natural Gas	VOC	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically.	Other:	Monitoring
		NOx	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. A CEMS will be installed, with measurements at least four times per hour and averaged hourly.	CEMS	
		CO	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. A CEMS will be installed, with measurements at least four times per hour and averaged hourly.	CEMS	
		NH3	SCR requires continuous monitoring for slip reduced to an hourly average.	Yes	The SCR will be continuously monitored to reduce ammonia slip.	CEMS	
		SO2	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically.	Other:	Monitoring
		H2SO4	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	H2SO4 results from sulfur present in fuels.	Other:	The fuel firing rate will be continuously monitored.
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Quarterly visible emission observations to demonstrate compliance with opacity requirements. Continuous fuel flow monitor data used to calculate emission rate. Data collected four times per hour and averaged hourly.	Yes	A continuous fuel monitor will be installed, with data collected at least four times per hour and averaged hourly. Quarterly visible emissions observations will be performed to demonstrate compliance.	Record keeping	
		CO2 Equivalent	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.

CT-10A	Turbine: Simple Cycle, Natural Gas	VOC	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically.	Other:	Monitoring
		NOx	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. A CEMS will be installed, with measurements at least four times per hour and averaged hourly.	CEMS	
		CO	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. A CEMS will be installed, with measurements at least four times per hour and averaged hourly.	CEMS	
		NH3	SCR requires continuous monitoring for slip reduced to an hourly average.	Yes	The SCR will be continuously monitored to reduce ammonia slip.	CEMS	
		SO2	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically.	Other:	Monitoring
		H2SO4	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	H2SO4 results from sulfur present in fuels.	Other:	The fuel firing rate will be continuously monitored.
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Quarterly visible emission observations to demonstrate compliance with opacity requirements. Continuous fuel flow monitor data used to calculate emission rate. Data collected four times per hour and averaged hourly.	Yes	A continuous fuel monitor will be installed, with data collected at least four times per hour and averaged hourly. Quarterly visible emissions observations will be performed to demonstrate compliance.	Record keeping	
		CO2 Equivalent	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
CT-11A	Turbine: Simple Cycle, Natural Gas	VOC	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically.	Other:	Monitoring
		NOx	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. A CEMS will be installed, with measurements at least four times per hour and averaged hourly.	CEMS	
		CO	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. A CEMS will be installed, with measurements at least four times per hour and averaged hourly.	CEMS	
		NH3	SCR requires continuous monitoring for slip reduced to an hourly average.	Yes	The SCR will be continuously monitored to reduce ammonia slip.	CEMS	
		SO2	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically.	Other:	Monitoring
		H2SO4	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	H2SO4 results from sulfur present in fuels.	Other:	The fuel firing rate will be continuously monitored.
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Quarterly visible emission observations to demonstrate compliance with opacity requirements. Continuous fuel flow monitor data used to calculate emission rate. Data collected four times per hour and averaged hourly.	Yes	A continuous fuel monitor will be installed, with data collected at least four times per hour and averaged hourly. Quarterly visible emissions observations will be performed to demonstrate compliance.	Record keeping	
		CO2 Equivalent	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
CT-12A	Turbine: Simple Cycle, Natural Gas	VOC	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically.	Other:	Monitoring
		NOx	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. A CEMS will be installed, with measurements at least four times per hour and averaged hourly.	CEMS	

		CO	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. A CEMS will be installed, with measurements at least four times per hour and averaged hourly.	CEMS	
		NH3	SCR requires continuous monitoring for slip reduced to an hourly average.	Yes	The SCR will be continuously monitored to reduce ammonia slip.	CEMS	
		SO2	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically.	Other:	Monitoring
		H2SO4	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	H2SO4 results from sulfur present in fuels.	Other:	The fuel firing rate will be continuously monitored.
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Quarterly visible emission observations to demonstrate compliance with opacity requirements. Continuous fuel flow monitor data used to calculate emission rate. Data collected four times per hour and averaged hourly.	Yes	A continuous fuel monitor will be installed, with data collected at least four times per hour and averaged hourly. Quarterly visible emissions observations will be performed to demonstrate compliance.	Record keeping	
		CO2 Equivalent	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
CT-13A	Turbine: Simple Cycle, Natural Gas	VOC	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically.	Other:	Monitoring
		NOx	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. A CEMS will be installed, with measurements at least four times per hour and averaged hourly.	CEMS	
		CO	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. A CEMS will be installed, with measurements at least four times per hour and averaged hourly.	CEMS	
		NH3	SCR requires continuous monitoring for slip reduced to an hourly average.	Yes	The SCR will be continuously monitored to reduce ammonia slip.	CEMS	
		SO2	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically.	Other:	Monitoring
		H2SO4	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	H2SO4 results from sulfur present in fuels.	Other:	The fuel firing rate will be continuously monitored.
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Quarterly visible emission observations to demonstrate compliance with opacity requirements. Continuous fuel flow monitor data used to calculate emission rate. Data collected four times per hour and averaged hourly.	Yes	A continuous fuel monitor will be installed, with data collected at least four times per hour and averaged hourly. Quarterly visible emissions observations will be performed to demonstrate compliance.	Record keeping	
		CO2 Equivalent	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
CT-14A	Turbine: Simple Cycle, Natural Gas	VOC	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically.	Other:	Monitoring
		NOx	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. A CEMS will be installed, with measurements at least four times per hour and averaged hourly.	CEMS	
		CO	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. A CEMS will be installed, with measurements at least four times per hour and averaged hourly.	CEMS	
		NH3	SCR requires continuous monitoring for slip reduced to an hourly average.	Yes	The SCR will be continuously monitored to reduce ammonia slip.	CEMS	
		SO2	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically.	Other:	Monitoring
		H2SO4	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	H2SO4 results from sulfur present in fuels.	Other:	The fuel firing rate will be continuously monitored.

		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Quarterly visible emission observations to demonstrate compliance with opacity requirements. Continuous fuel flow monitor data used to calculate emission rate. Data collected four times per hour and averaged hourly.	Yes	A continuous fuel monitor will be installed, with data collected at least four times per hour and averaged hourly. Quarterly visible emissions observations will be performed to demonstrate compliance.	Record keeping	
		CO2 Equivalent	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
CT-15A	Turbine: Simple Cycle, Natural Gas	VOC	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically.	Other:	Monitoring
		NOx	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. A CEMS will be installed, with measurements at least four times per hour and averaged hourly.	CEMS	
		CO	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. A CEMS will be installed, with measurements at least four times per hour and averaged hourly.	CEMS	
		NH3	SCR requires continuous monitoring for slip reduced to an hourly average.	Yes	The SCR will be continuously monitored to reduce ammonia slip.	CEMS	
		SO2	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically.	Other:	Monitoring
		H2SO4	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	H2SO4 results from sulfur present in fuels.	Other:	The fuel firing rate will be continuously monitored.
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Quarterly visible emission observations to demonstrate compliance with opacity requirements. Continuous fuel flow monitor data used to calculate emission rate. Data collected four times per hour and averaged hourly.	Yes	A continuous fuel monitor will be installed, with data collected at least four times per hour and averaged hourly. Quarterly visible emissions observations will be performed to demonstrate compliance.	Record keeping	
		CO2 Equivalent	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
CT-16A	Turbine: Simple Cycle, Natural Gas	VOC	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically.	Other:	Monitoring
		NOx	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. A CEMS will be installed, with measurements at least four times per hour and averaged hourly.	CEMS	
		CO	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. A CEMS will be installed, with measurements at least four times per hour and averaged hourly.	CEMS	
		NH3	SCR requires continuous monitoring for slip reduced to an hourly average.	Yes	The SCR will be continuously monitored to reduce ammonia slip.	CEMS	
		SO2	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically.	Other:	Monitoring
		H2SO4	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	H2SO4 results from sulfur present in fuels.	Other:	The fuel firing rate will be continuously monitored.
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Quarterly visible emission observations to demonstrate compliance with opacity requirements. Continuous fuel flow monitor data used to calculate emission rate. Data collected four times per hour and averaged hourly.	Yes	A continuous fuel monitor will be installed, with data collected at least four times per hour and averaged hourly. Quarterly visible emissions observations will be performed to demonstrate compliance.	Record keeping	
		CO2 Equivalent	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.

CT-17A	Turbine: Simple Cycle, Natural Gas	VOC	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically.	Other:	Monitoring
		NOx	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. A CEMS will be installed, with measurements at least four times per hour and averaged hourly.	CEMS	
		CO	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. A CEMS will be installed, with measurements at least four times per hour and averaged hourly.	CEMS	
		NH3	SCR requires continuous monitoring for slip reduced to an hourly average.	Yes	The SCR will be continuously monitored to reduce ammonia slip.	CEMS	
		SO2	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically.	Other:	Monitoring
		H2SO4	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	H2SO4 results from sulfur present in fuels.	Other:	The fuel firing rate will be continuously monitored.
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Quarterly visible emission observations to demonstrate compliance with opacity requirements. Continuous fuel flow monitor data used to calculate emission rate. Data collected four times per hour and averaged hourly.	Yes	A continuous fuel monitor will be installed, with data collected at least four times per hour and averaged hourly. Quarterly visible emissions observations will be performed to demonstrate compliance.	Record keeping	
		CO2 Equivalent	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
CT-18A	Turbine: Simple Cycle, Natural Gas	VOC	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically.	Other:	Monitoring
		NOx	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. A CEMS will be installed, with measurements at least four times per hour and averaged hourly.	CEMS	
		CO	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. A CEMS will be installed, with measurements at least four times per hour and averaged hourly.	CEMS	
		NH3	SCR requires continuous monitoring for slip reduced to an hourly average.	Yes	The SCR will be continuously monitored to reduce ammonia slip.	CEMS	
		SO2	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically.	Other:	Monitoring
		H2SO4	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	H2SO4 results from sulfur present in fuels.	Other:	The fuel firing rate will be continuously monitored.
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Quarterly visible emission observations to demonstrate compliance with opacity requirements. Continuous fuel flow monitor data used to calculate emission rate. Data collected four times per hour and averaged hourly.	Yes	A continuous fuel monitor will be installed, with data collected at least four times per hour and averaged hourly. Quarterly visible emissions observations will be performed to demonstrate compliance.	Record keeping	
		CO2 Equivalent	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
CT-19A	Turbine: Simple Cycle, Natural Gas	VOC	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically.	Other:	Monitoring
		NOx	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. A CEMS will be installed, with measurements at least four times per hour and averaged hourly.	CEMS	

		CO	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. A CEMS will be installed, with measurements at least four times per hour and averaged hourly.	CEMS	
		NH3	SCR requires continuous monitoring for slip reduced to an hourly average.	Yes	The SCR will be continuously monitored to reduce ammonia slip.	CEMS	
		SO2	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically.	Other:	Monitoring
		H2SO4	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	H2SO4 results from sulfur present in fuels.	Other:	The fuel firing rate will be continuously monitored.
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Quarterly visible emission observations to demonstrate compliance with opacity requirements. Continuous fuel flow monitor data used to calculate emission rate. Data collected four times per hour and averaged hourly.	Yes	A continuous fuel monitor will be installed, with data collected at least four times per hour and averaged hourly. Quarterly visible emissions observations will be performed to demonstrate compliance.	Record keeping	
		CO2 Equivalent	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
CT-20A	Turbine: Simple Cycle, Natural Gas	VOC	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically.	Other:	Monitoring
		NOx	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. A CEMS will be installed, with measurements at least four times per hour and averaged hourly.	CEMS	
		CO	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. A CEMS will be installed, with measurements at least four times per hour and averaged hourly.	CEMS	
		NH3	SCR requires continuous monitoring for slip reduced to an hourly average.	Yes	The SCR will be continuously monitored to reduce ammonia slip.	CEMS	
		SO2	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically.	Other:	Monitoring
		H2SO4	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	H2SO4 results from sulfur present in fuels.	Other:	The fuel firing rate will be continuously monitored.
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Quarterly visible emission observations to demonstrate compliance with opacity requirements. Continuous fuel flow monitor data used to calculate emission rate. Data collected four times per hour and averaged hourly.	Yes	A continuous fuel monitor will be installed, with data collected at least four times per hour and averaged hourly. Quarterly visible emissions observations will be performed to demonstrate compliance.	Record keeping	
		CO2 Equivalent	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
CT-21A	Turbine: Simple Cycle, Natural Gas	VOC	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically.	Other:	Monitoring
		NOx	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. A CEMS will be installed, with measurements at least four times per hour and averaged hourly.	CEMS	
		CO	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. A CEMS will be installed, with measurements at least four times per hour and averaged hourly.	CEMS	
		NH3	SCR requires continuous monitoring for slip reduced to an hourly average.	Yes	The SCR will be continuously monitored to reduce ammonia slip.	CEMS	
		SO2	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically.	Other:	Monitoring
		H2SO4	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	H2SO4 results from sulfur present in fuels.	Other:	The fuel firing rate will be continuously monitored.

		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Quarterly visible emission observations to demonstrate compliance with opacity requirements. Continuous fuel flow monitor data used to calculate emission rate. Data collected four times per hour and averaged hourly.	Yes	A continuous fuel monitor will be installed, with data collected at least four times per hour and averaged hourly. Quarterly visible emissions observations will be performed to demonstrate compliance.	Record keeping	
		CO2 Equivalent	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
CT-1B	Turbine: Simple Cycle, Natural Gas	VOC	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically.	Other:	Monitoring
		NOx	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. A CEMS will be installed, with measurements at least four times per hour and averaged hourly.	CEMS	
		CO	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. A CEMS will be installed, with measurements at least four times per hour and averaged hourly.	CEMS	
		NH3	SCR requires continuous monitoring for slip reduced to an hourly average.	Yes	The SCR will be continuously monitored to reduce ammonia slip.	CEMS	
		SO2	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically.	Other:	Monitoring
		H2SO4	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	H2SO4 results from sulfur present in fuels.	Other:	The fuel firing rate will be continuously monitored.
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Quarterly visible emission observations to demonstrate compliance with opacity requirements. Continuous fuel flow monitor data used to calculate emission rate. Data collected four times per hour and averaged hourly.	Yes	A continuous fuel monitor will be installed, with data collected at least four times per hour and averaged hourly. Quarterly visible emissions observations will be performed to demonstrate compliance.	Record keeping	
		CO2 Equivalent	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
CT-2B	Turbine: Simple Cycle, Natural Gas	VOC	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically.	Other:	Monitoring
		NOx	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. A CEMS will be installed, with measurements at least four times per hour and averaged hourly.	CEMS	
		CO	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. A CEMS will be installed, with measurements at least four times per hour and averaged hourly.	CEMS	
		NH3	SCR requires continuous monitoring for slip reduced to an hourly average.	Yes	The SCR will be continuously monitored to reduce ammonia slip.	CEMS	
		SO2	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically.	Other:	Monitoring
		H2SO4	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	H2SO4 results from sulfur present in fuels.	Other:	The fuel firing rate will be continuously monitored.
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Quarterly visible emission observations to demonstrate compliance with opacity requirements. Continuous fuel flow monitor data used to calculate emission rate. Data collected four times per hour and averaged hourly.	Yes	A continuous fuel monitor will be installed, with data collected at least four times per hour and averaged hourly. Quarterly visible emissions observations will be performed to demonstrate compliance.	Record keeping	
		CO2 Equivalent	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.

CT-3B	Turbine: Simple Cycle, Natural Gas	VOC	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically.	Other:	Monitoring
		NOx	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. A CEMS will be installed, with measurements at least four times per hour and averaged hourly.	CEMS	
		CO	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. A CEMS will be installed, with measurements at least four times per hour and averaged hourly.	CEMS	
		NH3	SCR requires continuous monitoring for slip reduced to an hourly average.	Yes	The SCR will be continuously monitored to reduce ammonia slip.	CEMS	
		SO2	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically.	Other:	Monitoring
		H2SO4	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	H2SO4 results from sulfur present in fuels.	Other:	The fuel firing rate will be continuously monitored.
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Quarterly visible emission observations to demonstrate compliance with opacity requirements. Continuous fuel flow monitor data used to calculate emission rate. Data collected four times per hour and averaged hourly.	Yes	A continuous fuel monitor will be installed, with data collected at least four times per hour and averaged hourly. Quarterly visible emissions observations will be performed to demonstrate compliance.	Record keeping	
		CO2 Equivalent	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
CT-4B	Turbine: Simple Cycle, Natural Gas	VOC	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically.	Other:	Monitoring
		NOx	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. A CEMS will be installed, with measurements at least four times per hour and averaged hourly.	CEMS	
		CO	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. A CEMS will be installed, with measurements at least four times per hour and averaged hourly.	CEMS	
		NH3	SCR requires continuous monitoring for slip reduced to an hourly average.	Yes	The SCR will be continuously monitored to reduce ammonia slip.	CEMS	
		SO2	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically.	Other:	Monitoring
		H2SO4	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	H2SO4 results from sulfur present in fuels.	Other:	The fuel firing rate will be continuously monitored.
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Quarterly visible emission observations to demonstrate compliance with opacity requirements. Continuous fuel flow monitor data used to calculate emission rate. Data collected four times per hour and averaged hourly.	Yes	A continuous fuel monitor will be installed, with data collected at least four times per hour and averaged hourly. Quarterly visible emissions observations will be performed to demonstrate compliance.	Record keeping	
		CO2 Equivalent	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
CT-5B	Turbine: Simple Cycle, Natural Gas	VOC	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically.	Other:	Monitoring
		NOx	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. A CEMS will be installed, with measurements at least four times per hour and averaged hourly.	CEMS	

		CO	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. A CEMS will be installed, with measurements at least four times per hour and averaged hourly.	CEMS	
		NH3	SCR requires continuous monitoring for slip reduced to an hourly average.	Yes	The SCR will be continuously monitored to reduce ammonia slip.	CEMS	
		SO2	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically.	Other:	Monitoring
		H2SO4	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	H2SO4 results from sulfur present in fuels.	Other:	The fuel firing rate will be continuously monitored.
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Quarterly visible emission observations to demonstrate compliance with opacity requirements. Continuous fuel flow monitor data used to calculate emission rate. Data collected four times per hour and averaged hourly.	Yes	A continuous fuel monitor will be installed, with data collected at least four times per hour and averaged hourly. Quarterly visible emissions observations will be performed to demonstrate compliance.	Record keeping	
		CO2 Equivalent	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
CT-6B	Turbine: Simple Cycle, Natural Gas	VOC	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically.	Other:	Monitoring
		NOx	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. A CEMS will be installed, with measurements at least four times per hour and averaged hourly.	CEMS	
		CO	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. A CEMS will be installed, with measurements at least four times per hour and averaged hourly.	CEMS	
		NH3	SCR requires continuous monitoring for slip reduced to an hourly average.	Yes	The SCR will be continuously monitored to reduce ammonia slip.	CEMS	
		SO2	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically.	Other:	Monitoring
		H2SO4	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	H2SO4 results from sulfur present in fuels.	Other:	The fuel firing rate will be continuously monitored.
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Quarterly visible emission observations to demonstrate compliance with opacity requirements. Continuous fuel flow monitor data used to calculate emission rate. Data collected four times per hour and averaged hourly.	Yes	A continuous fuel monitor will be installed, with data collected at least four times per hour and averaged hourly. Quarterly visible emissions observations will be performed to demonstrate compliance.	Record keeping	
		CO2 Equivalent	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
CT-7B	Turbine: Simple Cycle, Natural Gas	VOC	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically.	Other:	Monitoring
		NOx	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. A CEMS will be installed, with measurements at least four times per hour and averaged hourly.	CEMS	
		CO	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. A CEMS will be installed, with measurements at least four times per hour and averaged hourly.	CEMS	
		NH3	SCR requires continuous monitoring for slip reduced to an hourly average.	Yes	The SCR will be continuously monitored to reduce ammonia slip.	CEMS	
		SO2	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically.	Other:	Monitoring
		H2SO4	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	H2SO4 results from sulfur present in fuels.	Other:	The fuel firing rate will be continuously monitored.

		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Quarterly visible emission observations to demonstrate compliance with opacity requirements. Continuous fuel flow monitor data used to calculate emission rate. Data collected four times per hour and averaged hourly.	Yes	A continuous fuel monitor will be installed, with data collected at least four times per hour and averaged hourly. Quarterly visible emissions observations will be performed to demonstrate compliance.	Record keeping	
		CO2 Equivalent	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
CT-8B	Turbine: Simple Cycle, Natural Gas	VOC	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically.	Other:	Monitoring
		NOx	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. A CEMS will be installed, with measurements at least four times per hour and averaged hourly.	CEMS	
		CO	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. A CEMS will be installed, with measurements at least four times per hour and averaged hourly.	CEMS	
		NH3	SCR requires continuous monitoring for slip reduced to an hourly average.	Yes	The SCR will be continuously monitored to reduce ammonia slip.	CEMS	
		SO2	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically.	Other:	Monitoring
		H2SO4	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	H2SO4 results from sulfur present in fuels.	Other:	The fuel firing rate will be continuously monitored.
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Quarterly visible emission observations to demonstrate compliance with opacity requirements. Continuous fuel flow monitor data used to calculate emission rate. Data collected four times per hour and averaged hourly.	Yes	A continuous fuel monitor will be installed, with data collected at least four times per hour and averaged hourly. Quarterly visible emissions observations will be performed to demonstrate compliance.	Record keeping	
		CO2 Equivalent	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
CT-9B	Turbine: Simple Cycle, Natural Gas	VOC	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically.	Other:	Monitoring
		NOx	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. A CEMS will be installed, with measurements at least four times per hour and averaged hourly.	CEMS	
		CO	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. A CEMS will be installed, with measurements at least four times per hour and averaged hourly.	CEMS	
		NH3	SCR requires continuous monitoring for slip reduced to an hourly average.	Yes	The SCR will be continuously monitored to reduce ammonia slip.	CEMS	
		SO2	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically.	Other:	Monitoring
		H2SO4	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	H2SO4 results from sulfur present in fuels.	Other:	The fuel firing rate will be continuously monitored.
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Quarterly visible emission observations to demonstrate compliance with opacity requirements. Continuous fuel flow monitor data used to calculate emission rate. Data collected four times per hour and averaged hourly.	Yes	A continuous fuel monitor will be installed, with data collected at least four times per hour and averaged hourly. Quarterly visible emissions observations will be performed to demonstrate compliance.	Record keeping	
		CO2 Equivalent	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.

CT-10B	Turbine: Simple Cycle, Natural Gas	VOC	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically.	Other:	Monitoring
		NOx	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. A CEMS will be installed, with measurements at least four times per hour and averaged hourly.	CEMS	
		CO	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. A CEMS will be installed, with measurements at least four times per hour and averaged hourly.	CEMS	
		NH3	SCR requires continuous monitoring for slip reduced to an hourly average.	Yes	The SCR will be continuously monitored to reduce ammonia slip.	CEMS	
		SO2	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically.	Other:	Monitoring
		H2SO4	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	H2SO4 results from sulfur present in fuels.	Other:	The fuel firing rate will be continuously monitored.
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Quarterly visible emission observations to demonstrate compliance with opacity requirements. Continuous fuel flow monitor data used to calculate emission rate. Data collected four times per hour and averaged hourly.	Yes	A continuous fuel monitor will be installed, with data collected at least four times per hour and averaged hourly. Quarterly visible emissions observations will be performed to demonstrate compliance.	Record keeping	
		CO2 Equivalent	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
CT-11B	Turbine: Simple Cycle, Natural Gas	VOC	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically.	Other:	Monitoring
		NOx	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. A CEMS will be installed, with measurements at least four times per hour and averaged hourly.	CEMS	
		CO	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. A CEMS will be installed, with measurements at least four times per hour and averaged hourly.	CEMS	
		NH3	SCR requires continuous monitoring for slip reduced to an hourly average.	Yes	The SCR will be continuously monitored to reduce ammonia slip.	CEMS	
		SO2	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically.	Other:	Monitoring
		H2SO4	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	H2SO4 results from sulfur present in fuels.	Other:	The fuel firing rate will be continuously monitored.
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Quarterly visible emission observations to demonstrate compliance with opacity requirements. Continuous fuel flow monitor data used to calculate emission rate. Data collected four times per hour and averaged hourly.	Yes	A continuous fuel monitor will be installed, with data collected at least four times per hour and averaged hourly. Quarterly visible emissions observations will be performed to demonstrate compliance.	Record keeping	
		CO2 Equivalent	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
CT-12B	Turbine: Simple Cycle, Natural Gas	VOC	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically.	Other:	Monitoring
		NOx	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. A CEMS will be installed, with measurements at least four times per hour and averaged hourly.	CEMS	

		CO	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. A CEMS will be installed, with measurements at least four times per hour and averaged hourly.	CEMS	
		NH3	SCR requires continuous monitoring for slip reduced to an hourly average.	Yes	The SCR will be continuously monitored to reduce ammonia slip.	CEMS	
		SO2	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically.	Other:	Monitoring
		H2SO4	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	H2SO4 results from sulfur present in fuels.	Other:	The fuel firing rate will be continuously monitored.
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Quarterly visible emission observations to demonstrate compliance with opacity requirements. Continuous fuel flow monitor data used to calculate emission rate. Data collected four times per hour and averaged hourly.	Yes	A continuous fuel monitor will be installed, with data collected at least four times per hour and averaged hourly. Quarterly visible emissions observations will be performed to demonstrate compliance.	Record keeping	
		CO2 Equivalent	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
CT-13B	Turbine: Simple Cycle, Natural Gas	VOC	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically.	Other:	Monitoring
		NOx	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. A CEMS will be installed, with measurements at least four times per hour and averaged hourly.	CEMS	
		CO	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. A CEMS will be installed, with measurements at least four times per hour and averaged hourly.	CEMS	
		NH3	SCR requires continuous monitoring for slip reduced to an hourly average.	Yes	The SCR will be continuously monitored to reduce ammonia slip.	CEMS	
		SO2	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically.	Other:	Monitoring
		H2SO4	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	H2SO4 results from sulfur present in fuels.	Other:	The fuel firing rate will be continuously monitored.
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Quarterly visible emission observations to demonstrate compliance with opacity requirements. Continuous fuel flow monitor data used to calculate emission rate. Data collected four times per hour and averaged hourly.	Yes	A continuous fuel monitor will be installed, with data collected at least four times per hour and averaged hourly. Quarterly visible emissions observations will be performed to demonstrate compliance.	Record keeping	
		CO2 Equivalent	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
CT-14B	Turbine: Simple Cycle, Natural Gas	VOC	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically.	Other:	Monitoring
		NOx	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. A CEMS will be installed, with measurements at least four times per hour and averaged hourly.	CEMS	
		CO	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. A CEMS will be installed, with measurements at least four times per hour and averaged hourly.	CEMS	
		NH3	SCR requires continuous monitoring for slip reduced to an hourly average.	Yes	The SCR will be continuously monitored to reduce ammonia slip.	CEMS	
		SO2	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically.	Other:	Monitoring
		H2SO4	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	H2SO4 results from sulfur present in fuels.	Other:	The fuel firing rate will be continuously monitored.

		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Quarterly visible emission observations to demonstrate compliance with opacity requirements. Continuous fuel flow monitor data used to calculate emission rate. Data collected four times per hour and averaged hourly.		A continuous fuel monitor will be installed, with data collected at least four times per hour and averaged hourly. Quarterly visible emissions observations will be performed to demonstrate compliance.	Record keeping	
		CO2 Equivalent	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.		Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
DPHEAT1	Heater	VOC	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically.	Other:	Monitoring
		NOx	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. As firing rate <100 MMBtu/hr, CEMS not required.	Stack testing	
		CO	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. As firing rate <100 MMBtu/hr, CEMS not required.	Stack testing	
		SO2	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. SO2 and O2 CEMS if a major source. Refinery requires continuous monitoring of H2S in fuel, except where low sulfur content by design is established.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. A CEMS will be installed, with measurements at least four times per hour and averaged hourly.	CEMS	
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Quarterly visible emission checks, followed by an opacity observation if visible emissions are observed. Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	A continuous fuel monitor will be installed, with data collected at least four times per hour and averaged hourly. Quarterly visible emissions observations will be performed to demonstrate compliance.	Record keeping	
		CO2	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
		CH4	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
		N2O	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
		CO2 Equivalent	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
DPHEAT2	Heater	VOC	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically.	Other:	Monitoring
		NOx	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. As firing rate <100 MMBtu/hr, CEMS not required.	Stack testing	
		CO	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. As firing rate <100 MMBtu/hr, CEMS not required.	Stack testing	
		SO2	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. SO2 and O2 CEMS if a major source. Refinery requires continuous monitoring of H2S in fuel, except where low sulfur content by design is established.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. A CEMS will be installed, with measurements at least four times per hour and averaged hourly.	CEMS	
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Quarterly visible emission checks, followed by an opacity observation if visible emissions are observed. Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	A continuous fuel monitor will be installed, with data collected at least four times per hour and averaged hourly. Quarterly visible emissions observations will be performed to demonstrate compliance.	Record keeping	
		CO2	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.

		CH4	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
		N2O	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
		CO2 Equivalent	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
DPHEAT3	Heater	VOC	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically.	Other:	Monitoring
		NOx	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. As firing rate <100 MMBtu/hr, CEMS not required.	Stack testing	
		CO	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. As firing rate <100 MMBtu/hr, CEMS not required.	Stack testing	
		SO2	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. SO2 and O2 CEMS if a major source. Refinery requires continuous monitoring of H2S in fuel, except where low sulfur content by design is established.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. A CEMS will be installed, with measurements at least four times per hour and averaged hourly.	CEMS	
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Quarterly visible emission checks, followed by an opacity observation if visible emissions are observed. Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	A continuous fuel monitor will be installed, with data collected at least four times per hour and averaged hourly. Quarterly visible emissions observations will be performed to demonstrate compliance.	Record keeping	
		CO2	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
		CH4	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
		N2O	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
		CO2 Equivalent	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
DPHEAT4	Heater	VOC	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically.	Other:	Monitoring
		NOx	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. As firing rate <100 MMBtu/hr, CEMS not required.	Stack testing	
		CO	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. As firing rate <100 MMBtu/hr, CEMS not required.	Stack testing	
		SO2	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. SO2 and O2 CEMS if a major source. Refinery requires continuous monitoring of H2S in fuel, except where low sulfur content by design is established.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. A CEMS will be installed, with measurements at least four times per hour and averaged hourly.	CEMS	
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Quarterly visible emission checks, followed by an opacity observation if visible emissions are observed. Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	A continuous fuel monitor will be installed, with data collected at least four times per hour and averaged hourly. Quarterly visible emissions observations will be performed to demonstrate compliance.	Record keeping	
		CO2	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
		CH4	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.

		N2O	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
		CO2 Equivalent	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
DPHEAT5	Heater	VOC	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically.	Other:	Monitoring
		NOx	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. As firing rate <100 MMBtu/hr, CEMS not required.	Stack testing	
		CO	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. As firing rate <100 MMBtu/hr, CEMS not required.	Stack testing	
		SO2	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. SO2 and O2 CEMS if a major source. Refinery requires continuous monitoring of H2S in fuel, except where low sulfur content by design is established.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. A CEMS will be installed, with measurements at least four times per hour and averaged hourly.	CEMS	
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Quarterly visible emission checks, followed by an opacity observation if visible emissions are observed. Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	A continuous fuel monitor will be installed, with data collected at least four times per hour and averaged hourly. Quarterly visible emissions observations will be performed to demonstrate compliance.	Record keeping	
		CO2	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
		CH4	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
		N2O	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
		CO2 Equivalent	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
DPHEAT6	Heater	VOC	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically.	Other:	Monitoring
		NOx	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. As firing rate <100 MMBtu/hr, CEMS not required.	Stack testing	
		CO	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. As firing rate <100 MMBtu/hr, CEMS not required.	Stack testing	
		SO2	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. SO2 and O2 CEMS if a major source. Refinery requires continuous monitoring of H2S in fuel, except where low sulfur content by design is established.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. A CEMS will be installed, with measurements at least four times per hour and averaged hourly.	CEMS	
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Quarterly visible emission checks, followed by an opacity observation if visible emissions are observed. Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	A continuous fuel monitor will be installed, with data collected at least four times per hour and averaged hourly. Quarterly visible emissions observations will be performed to demonstrate compliance.	Record keeping	
		CO2	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
		CH4	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
		N2O	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.

		CO2 Equivalent	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
DPHEAT7	Heater	VOC	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically.	Other:	Monitoring
		NOx	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. As firing rate <100 MMBtu/hr, CEMS not required.	Stack testing	
		CO	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. As firing rate <100 MMBtu/hr, CEMS not required.	Stack testing	
		SO2	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. SO2 and O2 CEMS if a major source. Refinery requires continuous monitoring of H2S in fuel, except where low sulfur content by design is established.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. A CEMS will be installed, with measurements at least four times per hour and averaged hourly.	CEMS	
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Quarterly visible emission checks, followed by an opacity observation if visible emissions are observed. Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	A continuous fuel monitor will be installed, with data collected at least four times per hour and averaged hourly. Quarterly visible emissions observations will be performed to demonstrate compliance.	Record keeping	
		CO2	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
		CH4	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
		N2O	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
		CO2 Equivalent	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
DPHEAT8	Heater	VOC	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically.	Other:	Monitoring
		NOx	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. As firing rate <100 MMBtu/hr, CEMS not required.	Stack testing	
		CO	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. As firing rate <100 MMBtu/hr, CEMS not required.	Stack testing	
		SO2	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. SO2 and O2 CEMS if a major source. Refinery requires continuous monitoring of H2S in fuel, except where low sulfur content by design is established.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. A CEMS will be installed, with measurements at least four times per hour and averaged hourly.	CEMS	
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Quarterly visible emission checks, followed by an opacity observation if visible emissions are observed. Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	A continuous fuel monitor will be installed, with data collected at least four times per hour and averaged hourly. Quarterly visible emissions observations will be performed to demonstrate compliance.	Record keeping	
		CO2	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
		CH4	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
		N2O	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
		CO2 Equivalent	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.

DPHEAT9	Heater	VOC	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically.	Other:	Monitoring
		NOx	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. As firing rate <100 MMBtu/hr, CEMS not required.	Stack testing	
		CO	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. As firing rate <100 MMBtu/hr, CEMS not required.	Stack testing	
		SO2	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. SO2 and O2 CEMS if a major source. Refinery requires continuous monitoring of H2S in fuel, except where low sulfur content by design is established.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. A CEMS will be installed, with measurements at least four times per hour and averaged hourly.	CEMS	
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Quarterly visible emission checks, followed by an opacity observation if visible emissions are observed. Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	A continuous fuel monitor will be installed, with data collected at least four times per hour and averaged hourly. Quarterly visible emissions observations will be performed to demonstrate compliance.	Record keeping	
		CO2	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
		CH4	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
		N2O	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
		CO2 Equivalent	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
DPHEAT10	Heater	VOC	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically.	Other:	Monitoring
		NOx	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. As firing rate <100 MMBtu/hr, CEMS not required.	Stack testing	
		CO	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. As firing rate <100 MMBtu/hr, CEMS not required.	Stack testing	
		SO2	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. SO2 and O2 CEMS if a major source. Refinery requires continuous monitoring of H2S in fuel, except where low sulfur content by design is established.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. A CEMS will be installed, with measurements at least four times per hour and averaged hourly.	CEMS	
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Quarterly visible emission checks, followed by an opacity observation if visible emissions are observed. Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	A continuous fuel monitor will be installed, with data collected at least four times per hour and averaged hourly. Quarterly visible emissions observations will be performed to demonstrate compliance.	Record keeping	
		CO2	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
		CH4	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
		N2O	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
		CO2 Equivalent	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.

DPHEAT11	Heater	VOC	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically.	Other:	Monitoring
		NOx	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. As firing rate <100 MMBtu/hr, CEMS not required.	Stack testing	
		CO	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. As firing rate <100 MMBtu/hr, CEMS not required.	Stack testing	
		SO2	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. SO2 and O2 CEMS if a major source. Refinery requires continuous monitoring of H2S in fuel, except where low sulfur content by design is established.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. A CEMS will be installed, with measurements at least four times per hour and averaged hourly.	CEMS	
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Quarterly visible emission checks, followed by an opacity observation if visible emissions are observed. Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	A continuous fuel monitor will be installed, with data collected at least four times per hour and averaged hourly. Quarterly visible emissions observations will be performed to demonstrate compliance.	Record keeping	
		CO2	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
		CH4	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
		N2O	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
		CO2 Equivalent	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
DPHEAT12	Heater	VOC	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically.	Other:	Monitoring
		NOx	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. As firing rate <100 MMBtu/hr, CEMS not required.	Stack testing	
		CO	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. As firing rate <100 MMBtu/hr, CEMS not required.	Stack testing	
		SO2	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. SO2 and O2 CEMS if a major source. Refinery requires continuous monitoring of H2S in fuel, except where low sulfur content by design is established.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. A CEMS will be installed, with measurements at least four times per hour and averaged hourly.	CEMS	
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Quarterly visible emission checks, followed by an opacity observation if visible emissions are observed. Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	A continuous fuel monitor will be installed, with data collected at least four times per hour and averaged hourly. Quarterly visible emissions observations will be performed to demonstrate compliance.	Record keeping	
		CO2	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
		CH4	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
		N2O	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
		CO2 Equivalent	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
DPHEAT13	Heater	VOC	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically.	Other:	Monitoring

		NOx	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. As firing rate <100 MMBtu/hr, CEMS not required.	Stack testing	
		CO	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. As firing rate <100 MMBtu/hr, CEMS not required.	Stack testing	
		SO2	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. SO2 and O2 CEMS if a major source. Refinery requires continuous monitoring of H2S in fuel, except where low sulfur content by design is established.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. A CEMS will be installed, with measurements at least four times per hour and averaged hourly.	CEMS	
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Quarterly visible emission checks, followed by an opacity observation if visible emissions are observed. Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	A continuous fuel monitor will be installed, with data collected at least four times per hour and averaged hourly. Quarterly visible emissions observations will be performed to demonstrate compliance.	Record keeping	
		CO2	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
		CH4	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
		N2O	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
		CO2 Equivalent	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
DPHEAT14	Heater	VOC	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically.	Other:	Monitoring
		NOx	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. As firing rate <100 MMBtu/hr, CEMS not required.	Stack testing	
		CO	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. As firing rate <100 MMBtu/hr, CEMS not required.	Stack testing	
		SO2	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. SO2 and O2 CEMS if a major source. Refinery requires continuous monitoring of H2S in fuel, except where low sulfur content by design is established.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. A CEMS will be installed, with measurements at least four times per hour and averaged hourly.	CEMS	
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Quarterly visible emission checks, followed by an opacity observation if visible emissions are observed. Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	A continuous fuel monitor will be installed, with data collected at least four times per hour and averaged hourly. Quarterly visible emissions observations will be performed to demonstrate compliance.	Record keeping	
		CO2	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
		CH4	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
		N2O	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
		CO2 Equivalent	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
DPHEAT15	Heater	VOC	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically.	Other:	Monitoring

		NOx	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. As firing rate <100 MMBtu/hr, CEMS not required.	Stack testing	
		CO	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. As firing rate <100 MMBtu/hr, CEMS not required.	Stack testing	
		SO2	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. SO2 and O2 CEMS if a major source. Refinery requires continuous monitoring of H2S in fuel, except where low sulfur content by design is established.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. A CEMS will be installed, with measurements at least four times per hour and averaged hourly.	CEMS	
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Quarterly visible emission checks, followed by an opacity observation if visible emissions are observed. Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	A continuous fuel monitor will be installed, with data collected at least four times per hour and averaged hourly. Quarterly visible emissions observations will be performed to demonstrate compliance.	Record keeping	
		CO2	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
		CH4	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
		N2O	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
		CO2 Equivalent	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
DPHEAT16	Heater	VOC	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically.	Other:	Monitoring
		NOx	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. As firing rate <100 MMBtu/hr, CEMS not required.	Stack testing	
		CO	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. As firing rate <100 MMBtu/hr, CEMS not required.	Stack testing	
		SO2	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. SO2 and O2 CEMS if a major source. Refinery requires continuous monitoring of H2S in fuel, except where low sulfur content by design is established.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. A CEMS will be installed, with measurements at least four times per hour and averaged hourly.	CEMS	
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Quarterly visible emission checks, followed by an opacity observation if visible emissions are observed. Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	A continuous fuel monitor will be installed, with data collected at least four times per hour and averaged hourly. Quarterly visible emissions observations will be performed to demonstrate compliance.	Record keeping	
		CO2	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
		CH4	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
		N2O	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
		CO2 Equivalent	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
DPHEAT17	Heater	VOC	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically.	Other:	Monitoring

		NOx	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. As firing rate <100 MMBtu/hr, CEMS not required.	Stack testing	
		CO	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. As firing rate <100 MMBtu/hr, CEMS not required.	Stack testing	
		SO2	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. SO2 and O2 CEMS if a major source. Refinery requires continuous monitoring of H2S in fuel, except where low sulfur content by design is established.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. A CEMS will be installed, with measurements at least four times per hour and averaged hourly.	CEMS	
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Quarterly visible emission checks, followed by an opacity observation if visible emissions are observed. Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	A continuous fuel monitor will be installed, with data collected at least four times per hour and averaged hourly. Quarterly visible emissions observations will be performed to demonstrate compliance.	Record keeping	
		CO2	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
		CH4	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
		N2O	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
		CO2 Equivalent	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
DPHEAT18	Heater	VOC	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically.	Other:	Monitoring
		NOx	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. As firing rate <100 MMBtu/hr, CEMS not required.	Stack testing	
		CO	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. As firing rate <100 MMBtu/hr, CEMS not required.	Stack testing	
		SO2	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. SO2 and O2 CEMS if a major source. Refinery requires continuous monitoring of H2S in fuel, except where low sulfur content by design is established.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. A CEMS will be installed, with measurements at least four times per hour and averaged hourly.	CEMS	
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Quarterly visible emission checks, followed by an opacity observation if visible emissions are observed. Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	A continuous fuel monitor will be installed, with data collected at least four times per hour and averaged hourly. Quarterly visible emissions observations will be performed to demonstrate compliance.	Record keeping	
		CO2	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
		CH4	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
		N2O	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
		CO2 Equivalent	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
DPHEAT19	Heater	VOC	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically.	Other:	Monitoring

		NOx	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. As firing rate <100 MMBtu/hr, CEMS not required.	Stack testing	
		CO	<100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. Data used with stack testing results. ≥100 MMBtu/hr: Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. CEMS. Data collected four times per hour and averaged hourly.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. As firing rate <100 MMBtu/hr, CEMS not required.	Stack testing	
		SO2	Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied. SO2 and O2 CEMS if a major source. Refinery requires continuous monitoring of H2S in fuel, except where low sulfur content by design is established.	Yes	The fuel firing rate will be continuously monitored. Fuel composition will be monitored periodically. A CEMS will be installed, with measurements at least four times per hour and averaged hourly.	CEMS	
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Quarterly visible emission checks, followed by an opacity observation if visible emissions are observed. Continuously monitor the fuel firing rates. Periodic monitoring of fuel composition and heating value, if and when varied.	Yes	A continuous fuel monitor will be installed, with data collected at least four times per hour and averaged hourly. Quarterly visible emissions observations will be performed to demonstrate compliance.	Record keeping	
		CO2	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
		CH4	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
		N2O	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
		CO2 Equivalent	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Monitor fuel usage.	Other:	The fuel firing rate will be continuously monitored.
OILVENT1	Process Vent	VOC	Production rate or flow as appropriate Monitoring consistent with Control Device	Yes		Other:	Visible inspection will be performed to minimize emissions.
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Production rate or flow and differential pressure across PM control devices	Yes		Other:	Visible inspection will be performed to minimize emissions.
OILVENT2	Process Vent	VOC	Production rate or flow as appropriate Monitoring consistent with Control Device	Yes		Other:	Visible inspection will be performed to minimize emissions.
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Production rate or flow and differential pressure across PM control devices	Yes		Other:	Visible inspection will be performed to minimize emissions.
OILVENT3	Process Vent	VOC	Production rate or flow as appropriate Monitoring consistent with Control Device	Yes		Other:	Visible inspection will be performed to minimize emissions.
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Production rate or flow and differential pressure across PM control devices	Yes		Other:	Visible inspection will be performed to minimize emissions.

OILVENT4	Process Vent	VOC	Production rate or flow as appropriate Monitoring consistent with Control Device	Yes		Other:	Visible inspection will be performed to minimize emissions.
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Production rate or flow and differential pressure across PM control devices	Yes		Other:	Visible inspection will be performed to minimize emissions.
OILVENT5	Process Vent	VOC	Production rate or flow as appropriate Monitoring consistent with Control Device	Yes		Other:	Visible inspection will be performed to minimize emissions.
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Production rate or flow and differential pressure across PM control devices	Yes		Other:	Visible inspection will be performed to minimize emissions.
OILVENT6	Process Vent	VOC	Production rate or flow as appropriate Monitoring consistent with Control Device	Yes		Other:	Visible inspection will be performed to minimize emissions.
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Production rate or flow and differential pressure across PM control devices	Yes		Other:	Visible inspection will be performed to minimize emissions.
OILVENT7	Process Vent	VOC	Production rate or flow as appropriate Monitoring consistent with Control Device	Yes		Other:	Visible inspection will be performed to minimize emissions.
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Production rate or flow and differential pressure across PM control devices	Yes		Other:	Visible inspection will be performed to minimize emissions.
OILVENT8	Process Vent	VOC	Production rate or flow as appropriate Monitoring consistent with Control Device	Yes		Other:	Visible inspection will be performed to minimize emissions.
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Production rate or flow and differential pressure across PM control devices	Yes		Other:	Visible inspection will be performed to minimize emissions.
OILVENT9	Process Vent	VOC	Production rate or flow as appropriate Monitoring consistent with Control Device	Yes		Other:	Visible inspection will be performed to minimize emissions.

		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Production rate or flow and differential pressure across PM control devices	Yes		Other:	Visible inspection will be performed to minimize emissions.
OILVENT10	Process Vent	VOC	Production rate or flow as appropriate Monitoring consistent with Control Device	Yes		Other:	Visible inspection will be performed to minimize emissions.
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Production rate or flow and differential pressure across PM control devices	Yes		Other:	Visible inspection will be performed to minimize emissions.
OILVENT11	Process Vent	VOC	Production rate or flow as appropriate Monitoring consistent with Control Device	Yes		Other:	Visible inspection will be performed to minimize emissions.
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Production rate or flow and differential pressure across PM control devices	Yes		Other:	Visible inspection will be performed to minimize emissions.
OILVENT12	Process Vent	VOC	Production rate or flow as appropriate Monitoring consistent with Control Device	Yes		Other:	Visible inspection will be performed to minimize emissions.
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Production rate or flow and differential pressure across PM control devices	Yes		Other:	Visible inspection will be performed to minimize emissions.
OILVENT13	Process Vent	VOC	Production rate or flow as appropriate Monitoring consistent with Control Device	Yes		Other:	Visible inspection will be performed to minimize emissions.
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Production rate or flow and differential pressure across PM control devices	Yes		Other:	Visible inspection will be performed to minimize emissions.
OILVENT14	Process Vent	VOC	Production rate or flow as appropriate Monitoring consistent with Control Device	Yes		Other:	Visible inspection will be performed to minimize emissions.
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Production rate or flow and differential pressure across PM control devices	Yes		Other:	Visible inspection will be performed to minimize emissions.

OILVENT15	Process Vent	VOC	Production rate or flow as appropriate Monitoring consistent with Control Device	Yes		Other:	Visible inspection will be performed to minimize emissions.
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Production rate or flow and differential pressure across PM control devices	Yes		Other:	Visible inspection will be performed to minimize emissions.
OILVENT16	Process Vent	VOC	Production rate or flow as appropriate Monitoring consistent with Control Device	Yes		Other:	Visible inspection will be performed to minimize emissions.
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Production rate or flow and differential pressure across PM control devices	Yes		Other:	Visible inspection will be performed to minimize emissions.
OILVENT17	Process Vent	VOC	Production rate or flow as appropriate Monitoring consistent with Control Device	Yes		Other:	Visible inspection will be performed to minimize emissions.
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Production rate or flow and differential pressure across PM control devices	Yes		Other:	Visible inspection will be performed to minimize emissions.
OILVENT18	Process Vent	VOC	Production rate or flow as appropriate Monitoring consistent with Control Device	Yes		Other:	Visible inspection will be performed to minimize emissions.
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Production rate or flow and differential pressure across PM control devices	Yes		Other:	Visible inspection will be performed to minimize emissions.
OILVENT19	Process Vent	VOC	Production rate or flow as appropriate Monitoring consistent with Control Device	Yes		Other:	Visible inspection will be performed to minimize emissions.
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Production rate or flow and differential pressure across PM control devices	Yes		Other:	Visible inspection will be performed to minimize emissions.

OILVENT20	Process Vent	VOC	Production rate or flow as appropriate Monitoring consistent with Control Device	Yes		Other:	Visible inspection will be performed to minimize emissions.
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Production rate or flow and differential pressure across PM control devices	Yes		Other:	Visible inspection will be performed to minimize emissions.
OILVENT21	Process Vent	VOC	Production rate or flow as appropriate Monitoring consistent with Control Device	Yes		Other:	Visible inspection will be performed to minimize emissions.
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Production rate or flow and differential pressure across PM control devices	Yes		Other:	Visible inspection will be performed to minimize emissions.
OILVENT22	Process Vent	VOC	Production rate or flow as appropriate Monitoring consistent with Control Device	Yes		Other:	Visible inspection will be performed to minimize emissions.
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Production rate or flow and differential pressure across PM control devices	Yes		Other:	Visible inspection will be performed to minimize emissions.
OILVENT23	Process Vent	VOC	Production rate or flow as appropriate Monitoring consistent with Control Device	Yes		Other:	Visible inspection will be performed to minimize emissions.
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Production rate or flow and differential pressure across PM control devices	Yes		Other:	Visible inspection will be performed to minimize emissions.
OILVENT24	Process Vent	VOC	Production rate or flow as appropriate Monitoring consistent with Control Device	Yes		Other:	Visible inspection will be performed to minimize emissions.
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Production rate or flow and differential pressure across PM control devices	Yes		Other:	Visible inspection will be performed to minimize emissions.
OILVENT25	Process Vent	VOC	Production rate or flow as appropriate Monitoring consistent with Control Device	Yes		Other:	Visible inspection will be performed to minimize emissions.

		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Production rate or flow and differential pressure across PM control devices	Yes		Other:	Visible inspection will be performed to minimize emissions.
OILVENT26	Process Vent	VOC	Production rate or flow as appropriate Monitoring consistent with Control Device	Yes		Other:	Visible inspection will be performed to minimize emissions.
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Production rate or flow and differential pressure across PM control devices	Yes		Other:	Visible inspection will be performed to minimize emissions.
OILVENT27	Process Vent	VOC	Production rate or flow as appropriate Monitoring consistent with Control Device	Yes		Other:	Visible inspection will be performed to minimize emissions.
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Production rate or flow and differential pressure across PM control devices	Yes		Other:	Visible inspection will be performed to minimize emissions.
OILVENT28	Process Vent	VOC	Production rate or flow as appropriate Monitoring consistent with Control Device	Yes		Other:	Visible inspection will be performed to minimize emissions.
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Production rate or flow and differential pressure across PM control devices	Yes		Other:	Visible inspection will be performed to minimize emissions.
OILVENT29	Process Vent	VOC	Production rate or flow as appropriate Monitoring consistent with Control Device	Yes		Other:	Visible inspection will be performed to minimize emissions.
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Production rate or flow and differential pressure across PM control devices	Yes		Other:	Visible inspection will be performed to minimize emissions.
OILVENT30	Process Vent	VOC	Production rate or flow as appropriate Monitoring consistent with Control Device	Yes		Other:	Visible inspection will be performed to minimize emissions.
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Production rate or flow and differential pressure across PM control devices	Yes		Other:	Visible inspection will be performed to minimize emissions.

OILVENT31	Process Vent	VOC	Production rate or flow as appropriate Monitoring consistent with Control Device	Yes		Other:	Visible inspection will be performed to minimize emissions.
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Production rate or flow and differential pressure across PM control devices	Yes		Other:	Visible inspection will be performed to minimize emissions.
OILVENT32	Process Vent	VOC	Production rate or flow as appropriate Monitoring consistent with Control Device	Yes		Other:	Visible inspection will be performed to minimize emissions.
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Production rate or flow and differential pressure across PM control devices	Yes		Other:	Visible inspection will be performed to minimize emissions.
OILVENT33	Process Vent	VOC	Production rate or flow as appropriate Monitoring consistent with Control Device	Yes		Other:	Visible inspection will be performed to minimize emissions.
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Production rate or flow and differential pressure across PM control devices	Yes		Other:	Visible inspection will be performed to minimize emissions.
OILVENT34	Process Vent	VOC	Production rate or flow as appropriate Monitoring consistent with Control Device	Yes		Other:	Visible inspection will be performed to minimize emissions.
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Production rate or flow and differential pressure across PM control devices	Yes		Other:	Visible inspection will be performed to minimize emissions.
OILVENT35	Process Vent	VOC	Production rate or flow as appropriate Monitoring consistent with Control Device	Yes		Other:	Visible inspection will be performed to minimize emissions.
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Production rate or flow and differential pressure across PM control devices	Yes		Other:	Visible inspection will be performed to minimize emissions.

TNK-DSL1	Storage Tank (1): Fixed roof with capacity < 25,000 gal or TVP < 0.50 psia	VOC	Stored material and throughput	Yes	The stored material and throughput will be recorded.	Record keeping	
TNK-DSL2	Storage Tank (1): Fixed roof with capacity < 25,000 gal or TVP < 0.50 psia	VOC	Stored material and throughput	Yes	The stored material and throughput will be recorded.	Record keeping	
TNK-DSL3	Storage Tank (1): Fixed roof with capacity < 25,000 gal or TVP < 0.50 psia	VOC	Stored material and throughput	Yes	The stored material and throughput will be recorded.	Record keeping	
TNK-DSL4	Storage Tank (1): Fixed roof with capacity < 25,000 gal or TVP < 0.50 psia	VOC	Stored material and throughput	Yes	The stored material and throughput will be recorded.	Record keeping	
TNK-DSL5	Storage Tank (1): Fixed roof with capacity < 25,000 gal or TVP < 0.50 psia	VOC	Stored material and throughput	Yes	The stored material and throughput will be recorded.	Record keeping	
TNK-DSL6	Storage Tank (1): Fixed roof with capacity < 25,000 gal or TVP < 0.50 psia	VOC	Stored material and throughput	Yes	The stored material and throughput will be recorded.	Record keeping	

TNK-DSL7	Storage Tank (1): Fixed roof with capacity < 25,000 gal or TVP < 0.50 psia	VOC	Stored material and throughput	Yes	The stored material and throughput will be recorded.	Record keeping	
FPUMP1	Engine: Emergency, Diesel	VOC	Monitor and record hours of operation using a non-resettable run timer.	Yes	Hours of operation will be recorded using a non-resettable run timer.	Record keeping	
		NOx	Monitor and record hours of operation using a non-resettable run timer.	Yes	Hours of operation will be recorded using a non-resettable run timer.	Record keeping	
		CO	Monitor and record hours of operation using a non-resettable run timer.	Yes	Hours of operation will be recorded using a non-resettable run timer.	Record keeping	
		SO2	Records of fuel delivery indicating date and quantity of fuel delivered shall be maintained by the holder of this permit. If the fuel is designated ultra low sulfur diesel (ULSD), i.e., 15 ppmw sulfur, on the receipt, this is acceptable as showing compliance with sulfur limitations.	Yes	Records of fuel delivery and quantity will be maintained. The engines will utilize ultra low sulfur diesel.	Record keeping	
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Quarterly visible emission checks using EPA Method 22 or equivalent, followed by an opacity observation if visible emissions are observed. Monitor and record hours of operation.	Yes	Quarterly visible emission checks using EPA method 22, follow by opacity observation will be performed.	Other:	EPA method 22 check
		CO2	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Fuel usage will be monitored	Other:	Fuel usage will be monitored
		CH4	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Fuel usage will be monitored	Other:	Fuel usage will be monitored
		N2O	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Fuel usage will be monitored	Other:	Fuel usage will be monitored
		CO2 Equivalent	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Fuel usage will be monitored	Other:	Fuel usage will be monitored
FPUMP2	Engine: Emergency, Diesel	VOC	Monitor and record hours of operation using a non-resettable run timer.	Yes	Hours of operation will be recorded using a non-resettable run timer.	Record keeping	
		NOx	Monitor and record hours of operation using a non-resettable run timer.	Yes	Hours of operation will be recorded using a non-resettable run timer.	Record keeping	
		CO	Monitor and record hours of operation using a non-resettable run timer.	Yes	Hours of operation will be recorded using a non-resettable run timer.	Record keeping	
		SO2	Records of fuel delivery indicating date and quantity of fuel delivered shall be maintained by the holder of this permit. If the fuel is designated ultra low sulfur diesel (ULSD), i.e., 15 ppmw sulfur, on the receipt, this is acceptable as showing compliance with sulfur limitations.	Yes	Records of fuel delivery and quantity will be maintained. The engines will utilize ultra low sulfur diesel.	Record keeping	
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Quarterly visible emission checks using EPA Method 22 or equivalent, followed by an opacity observation if visible emissions are observed. Monitor and record hours of operation.	Yes	Quarterly visible emission checks using EPA method 22, follow by opacity observation will be performed.	Other:	EPA method 22 check
		CO2	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Fuel usage will be monitored	Other:	Fuel usage will be monitored
		CH4	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Fuel usage will be monitored	Other:	Fuel usage will be monitored
		N2O	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Fuel usage will be monitored	Other:	Fuel usage will be monitored
		CO2 Equivalent	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Fuel usage will be monitored	Other:	Fuel usage will be monitored
EGEN1	Engine: Emergency, Diesel	VOC	Monitor and record hours of operation using a non-resettable run timer.	Yes	Hours of operation will be recorded using a non-resettable run timer.	Record keeping	
		NOx	Monitor and record hours of operation using a non-resettable run timer.	Yes	Hours of operation will be recorded using a non-resettable run timer.	Record keeping	
		CO	Monitor and record hours of operation using a non-resettable run timer.	Yes	Hours of operation will be recorded using a non-resettable run timer.	Record keeping	

		SO2	Records of fuel delivery indicating date and quantity of fuel delivered shall be maintained by the holder of this permit. If the fuel is designated ultra low sulfur diesel (ULSD), i.e., 15 ppmw sulfur, on the receipt, this is acceptable as showing compliance with sulfur limitations.	Yes	Records of fuel delivery and quantity will be maintained. The engines will utilize ultra low sulfur diesel.	Record keeping	
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Quarterly visible emission checks using EPA Method 22 or equivalent, followed by an opacity observation if visible emissions are observed. Monitor and record hours of operation	Yes	Quarterly visible emission checks using EPA method 22, follow by opacity observation will be performed.	Other:	EPA method 22 check
		CO2	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Fuel usage will be monitored	Other:	Fuel usage will be monitored
		CH4	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Fuel usage will be monitored	Other:	Fuel usage will be monitored
		N2O	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Fuel usage will be monitored	Other:	Fuel usage will be monitored
		CO2 Equivalent	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Fuel usage will be monitored	Other:	Fuel usage will be monitored
EGEN2	Engine: Emergency, Diesel	VOC	Monitor and record hours of operation using a non-resettable run timer.	Yes	Hours of operation will be recorded using a non-resettable run timer.	Record keeping	
		NOx	Monitor and record hours of operation using a non-resettable run timer.	Yes	Hours of operation will be recorded using a non-resettable run timer.	Record keeping	
		CO	Monitor and record hours of operation using a non-resettable run timer.	Yes	Hours of operation will be recorded using a non-resettable run timer.	Record keeping	
		SO2	Records of fuel delivery indicating date and quantity of fuel delivered shall be maintained by the holder of this permit. If the fuel is designated ultra low sulfur diesel (ULSD), i.e., 15 ppmw sulfur, on the receipt, this is acceptable as showing compliance with sulfur limitations.	Yes	Records of fuel delivery and quantity will be maintained. The engines will utilize ultra low sulfur diesel.	Record keeping	
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Quarterly visible emission checks using EPA Method 22 or equivalent, followed by an opacity observation if visible emissions are observed. Monitor and record hours of operation	Yes	Quarterly visible emission checks using EPA method 22, follow by opacity observation will be performed.	Other:	EPA method 22 check
		CO2	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Fuel usage will be monitored	Other:	Fuel usage will be monitored
		CH4	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Fuel usage will be monitored	Other:	Fuel usage will be monitored
		N2O	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Fuel usage will be monitored	Other:	Fuel usage will be monitored
		CO2 Equivalent	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Fuel usage will be monitored	Other:	Fuel usage will be monitored
EGEN3	Engine: Emergency, Diesel	VOC	Monitor and record hours of operation using a non-resettable run timer.	Yes	Hours of operation will be recorded using a non-resettable run timer.	Record keeping	
		NOx	Monitor and record hours of operation using a non-resettable run timer.	Yes	Hours of operation will be recorded using a non-resettable run timer.	Record keeping	
		CO	Monitor and record hours of operation using a non-resettable run timer.	Yes	Hours of operation will be recorded using a non-resettable run timer.	Record keeping	
		SO2	Records of fuel delivery indicating date and quantity of fuel delivered shall be maintained by the holder of this permit. If the fuel is designated ultra low sulfur diesel (ULSD), i.e., 15 ppmw sulfur, on the receipt, this is acceptable as showing compliance with sulfur limitations.	Yes	Records of fuel delivery and quantity will be maintained. The engines will utilize ultra low sulfur diesel.	Record keeping	
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Quarterly visible emission checks using EPA Method 22 or equivalent, followed by an opacity observation if visible emissions are observed. Monitor and record hours of operation	Yes	Quarterly visible emission checks using EPA method 22, follow by opacity observation will be performed.	Other:	EPA method 22 check
		CO2	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Fuel usage will be monitored	Other:	Fuel usage will be monitored
		CH4	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Fuel usage will be monitored	Other:	Fuel usage will be monitored
		N2O	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Fuel usage will be monitored	Other:	Fuel usage will be monitored
		CO2 Equivalent	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Fuel usage will be monitored	Other:	Fuel usage will be monitored

EGEN4	Engine: Emergency, Diesel	VOC	Monitor and record hours of operation using a non-resettable run timer.	Yes	Hours of operation will be recorded using a non-resettable run timer.	Record keeping	
		NOx	Monitor and record hours of operation using a non-resettable run timer.	Yes	Hours of operation will be recorded using a non-resettable run timer.	Record keeping	
		CO	Monitor and record hours of operation using a non-resettable run timer.	Yes	Hours of operation will be recorded using a non-resettable run timer.	Record keeping	
		SO2	Records of fuel delivery indicating date and quantity of fuel delivered shall be maintained by the holder of this permit. If the fuel is designated ultra low sulfur diesel (ULSD), i.e., 15 ppmw sulfur, on the receipt, this is acceptable as showing compliance with sulfur limitations.	Yes	Records of fuel delivery and quantity will be maintained. The engines will utilize ultra low sulfur diesel.	Record keeping	
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Quarterly visible emission checks using EPA Method 22 or equivalent, followed by an opacity observation if visible emissions are observed. Monitor and record hours of operation	Yes	Quarterly visible emission checks using EPA method 22, follow by opacity observation will be performed.	Other:	EPA method 22 check
		CO2	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Fuel usage will be monitored	Other:	Fuel usage will be monitored
		CH4	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Fuel usage will be monitored	Other:	Fuel usage will be monitored
		N2O	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Fuel usage will be monitored	Other:	Fuel usage will be monitored
		CO2 Equivalent	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Fuel usage will be monitored	Other:	Fuel usage will be monitored
EGEN5	Engine: Emergency, Diesel	VOC	Monitor and record hours of operation using a non-resettable run timer.	Yes	Hours of operation will be recorded using a non-resettable run timer.	Record keeping	
		NOx	Monitor and record hours of operation using a non-resettable run timer.	Yes	Hours of operation will be recorded using a non-resettable run timer.	Record keeping	
		CO	Monitor and record hours of operation using a non-resettable run timer.	Yes	Hours of operation will be recorded using a non-resettable run timer.	Record keeping	
		SO2	Records of fuel delivery indicating date and quantity of fuel delivered shall be maintained by the holder of this permit. If the fuel is designated ultra low sulfur diesel (ULSD), i.e., 15 ppmw sulfur, on the receipt, this is acceptable as showing compliance with sulfur limitations.	Yes	Records of fuel delivery and quantity will be maintained. The engines will utilize ultra low sulfur diesel.	Record keeping	
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Quarterly visible emission checks using EPA Method 22 or equivalent, followed by an opacity observation if visible emissions are observed. Monitor and record hours of operation	Yes	Quarterly visible emission checks using EPA method 22, follow by opacity observation will be performed.	Other:	EPA method 22 check
		CO2	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Fuel usage will be monitored	Other:	Fuel usage will be monitored
		CH4	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Fuel usage will be monitored	Other:	Fuel usage will be monitored
		N2O	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Fuel usage will be monitored	Other:	Fuel usage will be monitored
		CO2 Equivalent	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Fuel usage will be monitored	Other:	Fuel usage will be monitored
EGEN6	Engine: Emergency, Diesel	VOC	Monitor and record hours of operation using a non-resettable run timer.	Yes	Hours of operation will be recorded using a non-resettable run timer.	Record keeping	
		NOx	Monitor and record hours of operation using a non-resettable run timer.	Yes	Hours of operation will be recorded using a non-resettable run timer.	Record keeping	
		CO	Monitor and record hours of operation using a non-resettable run timer.	Yes	Hours of operation will be recorded using a non-resettable run timer.	Record keeping	
		SO2	Records of fuel delivery indicating date and quantity of fuel delivered shall be maintained by the holder of this permit. If the fuel is designated ultra low sulfur diesel (ULSD), i.e., 15 ppmw sulfur, on the receipt, this is acceptable as showing compliance with sulfur limitations.	Yes	Records of fuel delivery and quantity will be maintained. The engines will utilize ultra low sulfur diesel.	Record keeping	
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Quarterly visible emission checks using EPA Method 22 or equivalent, followed by an opacity observation if visible emissions are observed. Monitor and record hours of operation	Yes	Quarterly visible emission checks using EPA method 22, follow by opacity observation will be performed.	Other:	EPA method 22 check
		CO2	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Fuel usage will be monitored	Other:	Fuel usage will be monitored
		CH4	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Fuel usage will be monitored	Other:	Fuel usage will be monitored

		N2O	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Fuel usage will be monitored	Other:	Fuel usage will be monitored
		CO2 Equivalent	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Fuel usage will be monitored	Other:	Fuel usage will be monitored
EGEN7	Engine: Emergency, Diesel	VOC	Monitor and record hours of operation using a non-resettable run timer.	Yes	Hours of operation will be recorded using a non-resettable run timer.	Record keeping	
		NOx	Monitor and record hours of operation using a non-resettable run timer.	Yes	Hours of operation will be recorded using a non-resettable run timer.	Record keeping	
		CO	Monitor and record hours of operation using a non-resettable run timer.	Yes	Hours of operation will be recorded using a non-resettable run timer.	Record keeping	
		SO2	Records of fuel delivery indicating date and quantity of fuel delivered shall be maintained by the holder of this permit. If the fuel is designated ultra low sulfur diesel (ULSD), i.e., 15 ppmw sulfur, on the receipt, this is acceptable as showing compliance with sulfur limitations.	Yes	Records of fuel delivery and quantity will be maintained. The engines will utilize ultra low sulfur diesel.	Record keeping	
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Quarterly visible emission checks using EPA Method 22 or equivalent, followed by an opacity observation if visible emissions are observed. Monitor and record hours of operation.	Yes	Quarterly visible emission checks using EPA method 22, follow by opacity observation will be performed.	Other:	EPA method 22 check
		CO2	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Fuel usage will be monitored	Other:	Fuel usage will be monitored
		CH4	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Fuel usage will be monitored	Other:	Fuel usage will be monitored
		N2O	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Fuel usage will be monitored	Other:	Fuel usage will be monitored
		CO2 Equivalent	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Fuel usage will be monitored	Other:	Fuel usage will be monitored
EGEN8	Engine: Emergency, Diesel	VOC	Monitor and record hours of operation using a non-resettable run timer.	Yes	Hours of operation will be recorded using a non-resettable run timer.	Record keeping	
		NOx	Monitor and record hours of operation using a non-resettable run timer.	Yes	Hours of operation will be recorded using a non-resettable run timer.	Record keeping	
		CO	Monitor and record hours of operation using a non-resettable run timer.	Yes	Hours of operation will be recorded using a non-resettable run timer.	Record keeping	
		SO2	Records of fuel delivery indicating date and quantity of fuel delivered shall be maintained by the holder of this permit. If the fuel is designated ultra low sulfur diesel (ULSD), i.e., 15 ppmw sulfur, on the receipt, this is acceptable as showing compliance with sulfur limitations.	Yes	Records of fuel delivery and quantity will be maintained. The engines will utilize ultra low sulfur diesel.	Record keeping	
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Quarterly visible emission checks using EPA Method 22 or equivalent, followed by an opacity observation if visible emissions are observed. Monitor and record hours of operation.	Yes	Quarterly visible emission checks using EPA method 22, follow by opacity observation will be performed.	Other:	EPA method 22 check
		CO2	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Fuel usage will be monitored	Other:	Fuel usage will be monitored
		CH4	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Fuel usage will be monitored	Other:	Fuel usage will be monitored
		N2O	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Fuel usage will be monitored	Other:	Fuel usage will be monitored
		CO2 Equivalent	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Fuel usage will be monitored	Other:	Fuel usage will be monitored
EGEN9	Engine: Emergency, Diesel	VOC	Monitor and record hours of operation using a non-resettable run timer.	Yes	Hours of operation will be recorded using a non-resettable run timer.	Record keeping	
		NOx	Monitor and record hours of operation using a non-resettable run timer.	Yes	Hours of operation will be recorded using a non-resettable run timer.	Record keeping	
		CO	Monitor and record hours of operation using a non-resettable run timer.	Yes	Hours of operation will be recorded using a non-resettable run timer.	Record keeping	
		SO2	Records of fuel delivery indicating date and quantity of fuel delivered shall be maintained by the holder of this permit. If the fuel is designated ultra low sulfur diesel (ULSD), i.e., 15 ppmw sulfur, on the receipt, this is acceptable as showing compliance with sulfur limitations.	Yes	Records of fuel delivery and quantity will be maintained. The engines will utilize ultra low sulfur diesel.	Record keeping	

		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Quarterly visible emission checks using EPA Method 22 or equivalent, followed by an opacity observation if visible emissions are observed. Monitor and record hours of operation	Yes	Quarterly visible emission checks using EPA method 22, follow by opacity observation will be performed.	Other:	EPA method 22 check
		CO2	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Fuel usage will be monitored	Other:	Fuel usage will be monitored
		CH4	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Fuel usage will be monitored	Other:	Fuel usage will be monitored
		N2O	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Fuel usage will be monitored	Other:	Fuel usage will be monitored
		CO2 Equivalent	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Fuel usage will be monitored	Other:	Fuel usage will be monitored
EGEN10	Engine: Emergency, Diesel	VOC	Monitor and record hours of operation using a non-resettable run timer.	Yes	Hours of operation will be recorded using a non-resettable run timer.	Record keeping	
		NOx	Monitor and record hours of operation using a non-resettable run timer.	Yes	Hours of operation will be recorded using a non-resettable run timer.	Record keeping	
		CO	Monitor and record hours of operation using a non-resettable run timer.	Yes	Hours of operation will be recorded using a non-resettable run timer.	Record keeping	
		SO2	Records of fuel delivery indicating date and quantity of fuel delivered shall be maintained by the holder of this permit. If the fuel is designated ultra low sulfur diesel (ULSD), i.e., 15 ppmw sulfur, on the receipt, this is acceptable as showing compliance with sulfur limitations.	Yes	Records of fuel delivery and quantity will be maintained. The engines will utilize ultra low sulfur diesel.	Record keeping	
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Quarterly visible emission checks using EPA Method 22 or equivalent, followed by an opacity observation if visible emissions are observed. Monitor and record hours of operation	Yes	Quarterly visible emission checks using EPA method 22, follow by opacity observation will be performed.	Other:	EPA method 22 check
		CO2	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Fuel usage will be monitored	Other:	Fuel usage will be monitored
		CH4	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Fuel usage will be monitored	Other:	Fuel usage will be monitored
		N2O	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Fuel usage will be monitored	Other:	Fuel usage will be monitored
		CO2 Equivalent	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Fuel usage will be monitored	Other:	Fuel usage will be monitored
EGEN11	Engine: Emergency, Diesel	VOC	Monitor and record hours of operation using a non-resettable run timer.	Yes	Hours of operation will be recorded using a non-resettable run timer.	Record keeping	
		NOx	Monitor and record hours of operation using a non-resettable run timer.	Yes	Hours of operation will be recorded using a non-resettable run timer.	Record keeping	
		CO	Monitor and record hours of operation using a non-resettable run timer.	Yes	Hours of operation will be recorded using a non-resettable run timer.	Record keeping	
		SO2	Records of fuel delivery indicating date and quantity of fuel delivered shall be maintained by the holder of this permit. If the fuel is designated ultra low sulfur diesel (ULSD), i.e., 15 ppmw sulfur, on the receipt, this is acceptable as showing compliance with sulfur limitations.	Yes	Records of fuel delivery and quantity will be maintained. The engines will utilize ultra low sulfur diesel.	Record keeping	
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Quarterly visible emission checks using EPA Method 22 or equivalent, followed by an opacity observation if visible emissions are observed. Monitor and record hours of operation	Yes	Quarterly visible emission checks using EPA method 22, follow by opacity observation will be performed.	Other:	EPA method 22 check
		CO2	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Fuel usage will be monitored	Other:	Fuel usage will be monitored
		CH4	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Fuel usage will be monitored	Other:	Fuel usage will be monitored
		N2O	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Fuel usage will be monitored	Other:	Fuel usage will be monitored
		CO2 Equivalent	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Fuel usage will be monitored	Other:	Fuel usage will be monitored
EGEN12	Engine: Emergency, Diesel	VOC	Monitor and record hours of operation using a non-resettable run timer.	Yes	Hours of operation will be recorded using a non-resettable run timer.	Record keeping	

		NOx	Monitor and record hours of operation using a non-resettable run timer.	Yes	Hours of operation will be recorded using a non-resettable run timer.	Record keeping	
		CO	Monitor and record hours of operation using a non-resettable run timer.	Yes	Hours of operation will be recorded using a non-resettable run timer.	Record keeping	
		SO2	Records of fuel delivery indicating date and quantity of fuel delivered shall be maintained by the holder of this permit. If the fuel is designated ultra low sulfur diesel (ULSD), i.e., 15 ppmw sulfur, on the receipt, this is acceptable as showing compliance with sulfur limitations.	Yes	Records of fuel delivery and quantity will be maintained. The engines will utilize ultra low sulfur diesel.	Record keeping	
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Quarterly visible emission checks using EPA Method 22 or equivalent, followed by an opacity observation if visible emissions are observed. Monitor and record hours of operation.	Yes	Quarterly visible emission checks using EPA method 22, follow by opacity observation will be performed.	Other:	EPA method 22 check
		CO2	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Fuel usage will be monitored	Other:	Fuel usage will be monitored
		CH4	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Fuel usage will be monitored	Other:	Fuel usage will be monitored
		N2O	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Fuel usage will be monitored	Other:	Fuel usage will be monitored
		CO2 Equivalent	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Fuel usage will be monitored	Other:	Fuel usage will be monitored
EGEN13	Engine: Emergency, Diesel	VOC	Monitor and record hours of operation using a non-resettable run timer.	Yes	Hours of operation will be recorded using a non-resettable run timer.	Record keeping	
		NOx	Monitor and record hours of operation using a non-resettable run timer.	Yes	Hours of operation will be recorded using a non-resettable run timer.	Record keeping	
		CO	Monitor and record hours of operation using a non-resettable run timer.	Yes	Hours of operation will be recorded using a non-resettable run timer.	Record keeping	
		SO2	Records of fuel delivery indicating date and quantity of fuel delivered shall be maintained by the holder of this permit. If the fuel is designated ultra low sulfur diesel (ULSD), i.e., 15 ppmw sulfur, on the receipt, this is acceptable as showing compliance with sulfur limitations.	Yes	Records of fuel delivery and quantity will be maintained. The engines will utilize ultra low sulfur diesel.	Record keeping	
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Quarterly visible emission checks using EPA Method 22 or equivalent, followed by an opacity observation if visible emissions are observed. Monitor and record hours of operation.	Yes	Quarterly visible emission checks using EPA method 22, follow by opacity observation will be performed.	Other:	EPA method 22 check
		CO2	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Fuel usage will be monitored	Other:	Fuel usage will be monitored
		CH4	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Fuel usage will be monitored	Other:	Fuel usage will be monitored
		N2O	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Fuel usage will be monitored	Other:	Fuel usage will be monitored
		CO2 Equivalent	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Fuel usage will be monitored	Other:	Fuel usage will be monitored
EGEN14	Engine: Emergency, Diesel	VOC	Monitor and record hours of operation using a non-resettable run timer.	Yes	Hours of operation will be recorded using a non-resettable run timer.	Record keeping	
		NOx	Monitor and record hours of operation using a non-resettable run timer.	Yes	Hours of operation will be recorded using a non-resettable run timer.	Record keeping	
		CO	Monitor and record hours of operation using a non-resettable run timer.	Yes	Hours of operation will be recorded using a non-resettable run timer.	Record keeping	
		SO2	Records of fuel delivery indicating date and quantity of fuel delivered shall be maintained by the holder of this permit. If the fuel is designated ultra low sulfur diesel (ULSD), i.e., 15 ppmw sulfur, on the receipt, this is acceptable as showing compliance with sulfur limitations.	Yes	Records of fuel delivery and quantity will be maintained. The engines will utilize ultra low sulfur diesel.	Record keeping	
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Quarterly visible emission checks using EPA Method 22 or equivalent, followed by an opacity observation if visible emissions are observed. Monitor and record hours of operation.	Yes	Quarterly visible emission checks using EPA method 22, follow by opacity observation will be performed.	Other:	EPA method 22 check
		CO2	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Fuel usage will be monitored	Other:	Fuel usage will be monitored
		CH4	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Fuel usage will be monitored	Other:	Fuel usage will be monitored
		N2O	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Fuel usage will be monitored	Other:	Fuel usage will be monitored

		CO2 Equivalent	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Fuel usage will be monitored	Other:	Fuel usage will be monitored
EGEN15	Engine: Emergency, Diesel	VOC	Monitor and record hours of operation using a non-resettable run timer.	Yes	Hours of operation will be recorded using a non-resettable run timer.	Record keeping	
		NOx	Monitor and record hours of operation using a non-resettable run timer.	Yes	Hours of operation will be recorded using a non-resettable run timer.	Record keeping	
		CO	Monitor and record hours of operation using a non-resettable run timer.	Yes	Hours of operation will be recorded using a non-resettable run timer.	Record keeping	
		SO2	Records of fuel delivery indicating date and quantity of fuel delivered shall be maintained by the holder of this permit. If the fuel is designated ultra low sulfur diesel (ULSD), i.e., 15 ppmw sulfur, on the receipt, this is acceptable as showing compliance with sulfur limitations.	Yes	Records of fuel delivery and quantity will be maintained. The engines will utilize ultra low sulfur diesel.	Record keeping	
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Quarterly visible emission checks using EPA Method 22 or equivalent, followed by an opacity observation if visible emissions are observed. Monitor and record hours of operation.	Yes	Quarterly visible emission checks using EPA method 22, follow by opacity observation will be performed.	Other:	EPA method 22 check
		CO2	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Fuel usage will be monitored	Other:	Fuel usage will be monitored
		CH4	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Fuel usage will be monitored	Other:	Fuel usage will be monitored
		N2O	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Fuel usage will be monitored	Other:	Fuel usage will be monitored
		CO2 Equivalent	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Fuel usage will be monitored	Other:	Fuel usage will be monitored
ENGINE-1	Engine: Internal Combustion Engine, Spark Ignited	VOC	Monitor and record startups, shutdowns, maintenance and hours of operation.	Yes	Hours of operation will be recorded using a non-resettable run timer.	Record keeping	
		NOx	Monitor and record startups, shutdowns, maintenance and hours of operation.	Yes	Hours of operation will be recorded using a non-resettable run timer.	Record keeping	
		CO	Monitor and record startups, shutdowns, maintenance and hours of operation.	Yes	Hours of operation will be recorded using a non-resettable run timer.	Record keeping	
		SO2	Monitor and record startups, shutdowns, maintenance and hours of operation. Record sulfur content of fuel provided from supplier or measure and record fuel sulfur content.	Yes	Records of fuel delivery and quantity will be maintained. The engines will utilize ultra low sulfur diesel.	Record keeping	
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Monitor and record startups, shutdowns, maintenance and hours of operation. Monitor and record visible emissions daily for a major source, quarterly for a minor source.	Yes	Quarterly visible emission checks using EPA method 22, follow by opacity observation will be performed.	Other:	EPA method 22 check
		CO2	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Fuel usage will be monitored	Other:	Fuel usage will be monitored
		CH4	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Fuel usage will be monitored	Other:	Fuel usage will be monitored
		N2O	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Fuel usage will be monitored	Other:	Fuel usage will be monitored
		CO2 Equivalent	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Fuel usage will be monitored	Other:	Fuel usage will be monitored
ENGINE-2	Engine: Internal Combustion Engine, Spark Ignited	VOC	Monitor and record startups, shutdowns, maintenance and hours of operation.	Yes	Hours of operation will be recorded using a non-resettable run timer.	Record keeping	
		NOx	Monitor and record startups, shutdowns, maintenance and hours of operation.	Yes	Hours of operation will be recorded using a non-resettable run timer.	Record keeping	
		CO	Monitor and record startups, shutdowns, maintenance and hours of operation.	Yes	Hours of operation will be recorded using a non-resettable run timer.	Record keeping	
		SO2	Monitor and record startups, shutdowns, maintenance and hours of operation. Record sulfur content of fuel provided from supplier or measure and record fuel sulfur content.	Yes	Records of fuel delivery and quantity will be maintained. The engines will utilize ultra low sulfur diesel.	Record keeping	
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Monitor and record startups, shutdowns, maintenance and hours of operation. Monitor and record visible emissions daily for a major source, quarterly for a minor source.	Yes	Quarterly visible emission checks using EPA method 22, follow by opacity observation will be performed.	Other:	EPA method 22 check
		CO2	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Fuel usage will be monitored	Other:	Fuel usage will be monitored

		CH4	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Fuel usage will be monitored	Other:	Fuel usage will be monitored
		N2O	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Fuel usage will be monitored	Other:	Fuel usage will be monitored
		CO2 Equivalent	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Fuel usage will be monitored	Other:	Fuel usage will be monitored
MSSFUG	MSS Activities	VOC	Requirement dependent on application representation. Vapor concentration measurement prior to opening to atmosphere may be required and/or emission potential may be recalculated. Each measurement and/or number of events monthly must be monitored. Must monitor open ended lines for leaks if open more than 72 hours without cap, blind flange or plug. Where add on control is used for purge, monitoring consistent with device used and flow and firing rates monitored or potential calculated.	Yes	Number of maintenance operations will be recorded and estimated emissions will be maintained.	Record keeping	
		NOx	Where add on control is used for purge, monitoring consistent with device used and flow and firing rates monitored or potential calculated.	Yes	Number of maintenance operations will be recorded and estimated emissions will be maintained.	Record keeping	
		CO	Requirement dependent on application representation. Vapor concentration measurement prior to opening to atmosphere may be required and/or emission potential may be recalculated. Each measurement and/or number of events monthly must be monitored. Must monitor open ended lines for leaks if open more than 72 hours without cap, blind flange or plug. Where add on control is used for purge, monitoring consistent with device used and flow and firing rates monitored or potential calculated.	Yes	Number of maintenance operations will be recorded and estimated emissions will be maintained.	Record keeping	
		NH3	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Number of maintenance operations will be recorded and estimated emissions will be maintained.	Record keeping	Number of maintenance operations will be recorded and estimated emiss
		H2S	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Number of maintenance operations will be recorded and estimated emissions will be maintained.	Record keeping	Number of maintenance operations will be recorded and estimated emiss
		PM	The emission monitoring techniques for PM10 and PM2.5 will follow the technique for PM. Blasting material and usage. Paint spray type and usage. Combustion firing rates. Differential pressure across PM control devices.	Yes	Number of maintenance operations will be recorded and estimated emissions will be maintained.	Record keeping	
		CO2	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Number of maintenance operations will be recorded and estimated emissions will be maintained.	Record keeping	Number of maintenance operations will be recorded and estimated emiss
		CH4	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Number of maintenance operations will be recorded and estimated emissions will be maintained.	Record keeping	Number of maintenance operations will be recorded and estimated emiss
		CO2 Equivalent	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	Number of maintenance operations will be recorded and estimated emissions will be maintained.	Record keeping	Number of maintenance operations will be recorded and estimated emiss
FUG-SF6	Fugitives: Piping and Equipment Leak	SF6	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	No applicable requirement.	Other:	No applicable requirement.
		CO2 Equivalent	Fill out the Additional Notes for Monitoring column to demonstrate how monitoring will be conducted to demonstrate compliance with the permit.	Yes	No applicable requirement.	Other:	No applicable requirement.

Texas Commission on Environmental Quality
Form PI-1 General Application
Materials

Date: August 4, 2025
Permit #: TBD
Company:Pacifico GW LLC

Item	How submitted	Date submitted
A. Administrative Information		
Form PI-1 General Application	STEERS	08/04/2025
Hard copy of the General sheet with original (ink) signature	Not applicable	
Professional Engineer Seal	STEERS	08/04/2025
B. General Information		
Copy of current permit (both Special Conditions and MAERT)		
Core Data Form	STEERS	08/04/2025
Area map	STEERS	08/04/2025
Plot plan	STEERS	08/04/2025
Process description	STEERS	08/04/2025
Process flow diagram	STEERS	08/04/2025
List of MSS activities	STEERS	08/04/2025
State regulatory requirements discussion	STEERS	08/04/2025
C. Federal Applicability (see step 6 of Federal Applicability sheet instructions)		
Project emission increase determination - Table 2F	Not applicable	
Netting analysis (if applicable) - Tables 3F and 4F		
D. Technical Information		
BACT discussion, if additional details are attached	STEERS	08/04/2025
Monitoring information, if additional details are attached	Not applicable	
Material Balance (if applicable)	STEERS	08/04/2025
Calculations	STEERS	08/04/2025
E. Impacts Analysis		
Qualitative impacts analysis		
MERA analysis	STEERS	08/04/2025
EMEW: SCREEN3	Not applicable	
EMEW: NonSCREEN3	STEERS	08/04/2025
PSD modeling protocol	STEERS	08/04/2025
F. Additional Attachments		
Forms APD-EXP and APD-APS Expedited Permitting Request	STEERS	08/04/2025
TCEQ Plain Language Summary for New Source Review (NSR) Initial Permits; English and Spanish versions	STEERS	08/04/2025
TCEQ Public Involvement Plan (PIP) Form	STEERS	08/04/2025
TCEQ Table 2 Material Balance	STEERS	08/04/2025
TCEQ Equipment Table Forms	STEERS	08/04/2025
TCEQ Table 1F and 2F (Air Quality Application Supplement and Project Emissions Increase Supplement)	STEERS	08/04/2025
—TCEQ Fugitive Emission Calculations; Excel workbook file	STEERS	08/04/2025

TCEQ Use Only

TCEQ Core Data Form

For detailed instructions on completing this form, please read the Core Data Form Instructions or call 512-239-5175.

SECTION I: General Information

1. Reason for Submission (*If other is checked please describe in space provided.*)

☒ New Permit, Registration or Authorization (*Core Data Form should be submitted with the program application.*)

☐ Renewal *(Core Data Form should be submitted with the renewal form)*

☐ Other

2. Customer Reference Number *(if issued)*	Follow this link to search for CN or RN numbers in Central Registry**	**3. Regulated Entity Reference Number** *(if issued)*
CN		**RN**

SECTION II: Customer Information

4. General Customer Information	**5. Effective Date for Customer Information Updates** (mm/dd/yyyy)	6/27/2025

☒ New Customer ☐ Update to Customer Information ☐ Change in Regulated Entity Ownership
☐ Change in Legal Name (Verifiable with the Texas Secretary of State or Texas Comptroller of Public Accounts)

The Customer Name submitted here may be updated automatically based on what is current and active with the Texas Secretary of State (SOS) or Texas Comptroller of Public Accounts (CPA).

6. Customer Legal Name *(If an individual, print last name first: eg: Doe, John)*

If new Customer, enter previous Customer below:

Pacifico GW LLC

7. TX SOS/CPA Filing Number	**8. TX State Tax ID** (11 digits)	**9. Federal Tax ID** (9 digits)	**10. DUNS Number** *(if applicable)*
0805742726	32097141538	33-1295125	

11. Type of Customer:

☐ Corporation ☐ Individual Partnership: ☐ General ☐ Limited

Government: ☐ City ☐ County ☐ Federal ☐ Local ☐ State ☐ Other ☐ Sole Proprietorship ☒ Other: LLC

12. Number of Employees

☐ 0-20 ☒ 21-100 ☐ 101-250 ☐ 251-500 ☐ 501 and higher

13. Independently Owned and Operated?

☒ **Yes** ☐ **No**

14. Customer Role (Proposed or Actual) – *as it relates to the Regulated Entity listed on this form. Please check one of the following*

☐ Owner ☐ Operator ☒ Owner & Operator
☐ Occupational Licensee ☐ Responsible Party ☐ VCP/BSA Applicant ☐ Other:

15. Mailing Address:	30900 Rancho Viejo Rd., Suite 230						
	City	San Juan Capistrano	**State**	CA	**ZIP**	92675	**ZIP + 4**

16. Country Mailing Information *(if outside USA)*	**17. E-Mail Address** *(if applicable)*
	constantyn@pacificoenergy.com

18. Telephone Number	19. Extension or Code	20. Fax Number *(if applicable)*
(949) 481-8200		(949) 607-4792

SECTION III: Regulated Entity Information

21. General Regulated Entity Information *(If 'New Regulated Entity" is selected, a new permit application is also required.)*

☒ New Regulated Entity ☐ Update to Regulated Entity Name ☐ Update to Regulated Entity Information

The Regulated Entity Name submitted may be updated, in order to meet TCEQ Core Data Standards (removal of organizational endings such as Inc, LP, or LLC).

22. Regulated Entity Name *(Enter name of the site where the regulated action is taking place.)*

GW Ranch Energy Center

23. Street Address of the Regulated Entity: ***(No PO Boxes)***	N/A, see description in #25.							
	City		**State**	TX	**ZIP**		**ZIP + 4**	
24. County	Pecos							

If no Street Address is provided, fields 25-28 are required.

25. Description to Physical Location:	Facility is located north of Fort Stockton. Continue north on Highway 18 approximately 17 miles north of town, on the west side of Highway 18.

26. Nearest City	State	Nearest ZIP Code
Fort Stockton	TX	79735

Latitude/Longitude are required and may be added/updated to meet TCEQ Core Data Standards. (Geocoding of the Physical Address may be used to supply coordinates where none have been provided or to gain accuracy).

27. Latitude (N) In Decimal:	31.171		28. Longitude (W) In Decimal:	-102.895	
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds
31	10	15.6	102	53	42.00

29. Primary SIC Code (4 digits)	30. Secondary SIC Code (4 digits)	31. Primary NAICS Code (5 or 6 digits)	32. Secondary NAICS Code (5 or 6 digits)
4911		221112	

33. What is the Primary Business of this entity? *(Do not repeat the SIC or NAICS description.)*

Power Generation for Data Centers

34. Mailing Address:	**30900 Rancho Viejo Rd., Suite 230**							
	City	**San Juan Capistrano**	**State**	**CA**	**ZIP**	**92675**	**ZIP + 4**	
35. E-Mail Address:	**Constantyn@pacificoenergy.com**							

36. Telephone Number	37. Extension or Code	38. Fax Number *(if applicable)*

(949) 481-8200		**(949) 607-4792**

39. TCEQ Programs and ID Numbers Check all Programs and write in the permits/registration numbers that will be affected by the updates submitted on this form. See the Core Data Form instructions for additional guidance.

☐ Dam Safety	☐ Districts	☐ Edwards Aquifer	☒ Emissions Inventory Air	☐ Industrial Hazardous Waste
☐ Municipal Solid Waste	☒ New Source Review Air	☐ OSSF	☐ Petroleum Storage Tank	☐ PWS
☐ Sludge	☐ Storm Water	☒ Title V Air	☐ Tires	☐ Used Oil
☐ Voluntary Cleanup	☐ Wastewater	☐ Wastewater Agriculture	☐ Water Rights	☐ Other:

SECTION IV: Preparer Information

40. Name:	Elizabeth Stanko	**41. Title:**	Director, Energy Projects

42. Telephone Number	**43. Ext./Code**	**44. Fax Number**	**45. E-Mail Address**
(713 **)** 244-1039		**( )** -	EStanko@TRCcompanies.com

SECTION V: Authorized Signature

46. By my signature below, I certify, to the best of my knowledge, that the information provided in this form is true and complete, and that I have signature authority to submit this form on behalf of the entity specified in Section II, Field 6 and/or as required for the updates to the ID numbers identified in field 39.

Company:	Pacifico GW LLC	**Job Title:**	Vice President
Name *(In Print):*	Constantyn Gieskes	**Phone:**	**(** 949 **)** 481- **8200**
Signature:		**Date:**	

Form APD-EXP Expedited Permitting Request

I. Contact Information	
Company or Other Legal Customer Name: Pacifico GW LLC	
Customer Reference Number (CN): TBD	
Regulated Entity Number (RN): TBD	
Company Official or Technical Contact Name: Mr. Constantyn Gieskes	
Phone Number: 949-481-8200	
Email: Constantyn@pacificoenergy.com	
II. Project Information	
Facility Type: Simple Cycle Natural Gas Turbines	
Permit Number: TBD	
Project Number: TBD	
III. Economic Justification	
The purpose of the application associated with this request to expedite will benefit the economy of this state or an area of this state.	☒ YES ☐ NO
IV. Delinquent Fees and Penalties	
Applications will not be expedited if any delinquent fees and/or penalties are owed to the TCEQ or the Office of the Attorney General on behalf of the TCEQ. For more information regarding Delinquent Fees and Penalties, go to the TCEQ Web site at: www.tceq.texas.gov/agency/delin/index.html.	
V. Signature	
The signature below confirms that I have knowledge of the facts included in this application and that these facts are true and correct to the best of my knowledge and belief. As the applicant, I commit to fulfilling all expectations of the expedited permitting program and application requirements promptly. Failure to meet any expectation or requirement may cause my application to be removed from the expedited permitting program and possibly voided at the discretion of the TCEQ Executive Director. The signature further signifies awareness that intentionally or knowingly making or causing to be made false material statements or representations in the application is a criminal offense subject to criminal penalties.	
Name: Constantyn Gieskes	
Signature:	
Date:	

Reset Form

Air Permit Division Air Permit Support (APD-APS) Air Permitting Surcharge Payment
Texas Commission on Environmental Quality

I. Contact Information
Company or Other Legal Customer Name: Pacifico GW LLC
Customer Reference Number (CN): TBD
Regulated Entity Number (RN): TBD
Company Official or Technical Contact Information
◉ Mr. ☐ Mrs. ☐ Ms. ☐ Dr. ☐ Other:
Name: Constantyn
Title: Gieskes
Mailing Address: 30900 Rancho Vejo Rd. Ste. 230
City: San Juan Capistrano
State: California
ZIP Code: 92675
Telephone Number: 949-481-8200
E-mail Address: Constantyn@pacificoenergy.com
II. Project Information
Facility Name: GW Ranch Energy Center
Permit Number: TBD
Project Number: TBD
III. Surcharge Payment
Project Type: Federal NSR
Fee Amount: $ 20,000
Check, Money Order, Transaction Number, and/or ePay Voucher Number: *(below)*
Paid Online: ☒ YES ☐ NO
Company Name on Check:

Plain Language Summary for New Source Review (NSR) Initial Application for Air New Source Review Permit Number [TBD]

The following summary is provided for this pending air permit application being reviewed by the Texas Commission on Environmental Quality as required by 30 Texas Administrative Code Chapter 39. The information provided in this summary may change during the technical review of the application and are not federal enforceable representations of the permit application.

Pacifico GW LLC (CN TBD) has submitted an air permit application for initial Permit Numbers [NSR# PSDTX# GHGPSDTX#] to authorize construction of a new natural gas-fired simple cycle power plant to be located at the GW Ranch Energy Center (RN TBD) at a greenfield site in Pecos County. The site is located on Highway 18, approximately 17 miles north of Fort Stockton, Pecos County, Texas. The GW Ranch Energy Center will provide electricity to an on-site data center campus and will not be connected or capable of selling electricity to the local utility power grid.

Pacifico GW LLC has listed in the application the pollutants and amounts that will be emitted for each facility. Below is the total amount for each pollutant that is proposed to be emitted each year for all the facilities.

Pollutant	**Proposed Emissions (tons per year)**
Volatile Organic Compounds (VOC)	837.99
Carbon Monoxide (CO)	5,955.12
Nitrogen Oxides (NOx)	2,830.28
Sulfur Dioxide (SO_2)	397.70
Ammonia (NH_3)	1,924.77
Total Particulate Matter (PM)	998.82
Particulate Matter sized less than 10 Microns (PM_{10})	995.03
Particulate Matter sized less than 2.5 Microns ($PM_{2.5}$)	991.26
Sulfuric Acid (H_2SO_4)	60.66
Greenhouse Gas (CO_2e)	33,212,284.72
Hazardous Air Pollutants (HAPs - Individual)	66.54
Hazardous Air Pollutants (HAPS - Aggregate)	159.87

NOx emissions from the new combustion turbines will be controlled with selective catalytic reduction (SCR) and CO and VOC emissions will be controlled with oxidation catalyst.

Resumen en Lenguaje Sencillo del Permiso Inicial de Revisión de Nuevas Fuentes
Solicitud de Permiso de Revisión de Nuevas Fuentes de Aire Número [TBD]

El siguiente resumen se proporciona para esta solicitud de permiso de aire pendiente que está siendo revisada por la Comisión de Calidad Ambiental de Texas, según lo dispuesto en el capítulo 39 del Código Administrativo de Texas. La información proporcionada en este resumen puede cambiar durante la revisión técnica de la solicitud y no son representaciones federales ejecutables de la solicitud de permiso.

Pacifico GW LLC (CN TBD) ha presentado una solicitud de permiso de aire con los números iniciales [NSR# PSDTX# GHGPSDTX#] para autorizar la construcción de una nueva central eléctrica de ciclo simple a gas natural, que se ubicará en el Centro de Energía GW Ranch (RN TBD), en un terreno sin edificar en el condado de Pecos. El terreno se encuentra en la Carretera 18, aproximadamente a 27 kilómetros al norte de Fort Stockton, condado de Pecos, Texas. El Centro de Energía GW Ranch suministrará electricidad a un campus de centro de datos en el sitio y no estará conectado ni podrá vender electricidad a la red eléctrica local.

Pacifico GW LLC ha enumerado en la solicitud los contaminantes y las cantidades que se emitirán en cada instalación. A continuación, se muestra la cantidad total de cada contaminante que se propone emitir anualmente para todas las instalaciones.

Los Contaminantes	**Emisiones Propuestas (toneladas por año)**
Compuestos orgánicos volátiles (COV)	837.99
Monóxido de carbono (CO)	5,955.12
Óxidos de nitrógeno (NOx)	2,830.28
Dióxido de azufre (SO_2)	397.70
Amoníaco (NH_3)	1,924.77
Partículas Totales (PM)	998.82
Partículas de tamaño inferior a 10 micrones (PM_{10})	995.03
Partículas de tamaño inferior a 2,5 micrones ($PM_{2.5}$)	991.26
Ácido sulfúrico (H_2SO_4)	60.66
Gases de efecto invernadero (CO_2e)	33,212,284.72
Contaminantes atmosféricos peligrosos (HAPs - Individual)	66.54
Contaminantes atmosféricos peligrosos (HAPS - Aggregate)	159.87

Las emisiones de NOx de las nuevas turbinas de combustión se controlarán con reducción catalítica selectiva (SCR) y las emisiones de CO y COV se controlarán con catalizador de oxidación.

Texas Commission on Environmental Quality

Public Involvement Plan Form for Permit and Registration Applications

The Public Involvement Plan is intended to provide applicants and the agency with information about how public outreach will be accomplished for certain types of applications in certain geographical areas of the state. It is intended to apply to new activities; major changes at existing plants, facilities, and processes; and to activities which are likely to have significant interest from the public. This preliminary screening is designed to identify applications that will benefit from an initial assessment of the need for enhanced public outreach.

All applicable sections of this form should be completed and submitted with the permit or registration application. For instructions on how to complete this form, see TCEQ-20960-inst.

Section 1. Preliminary Screening

☒ New Permit or Registration Application

☐ New Activity – modification, registration, amendment, facility, etc. (see instructions)

If neither of the above boxes are checked, completion of the form is not required and does not need to be submitted.

Section 2. Secondary Screening

☒ Requires public notice,

☐ Considered to have significant public interest, **and**

☐ Located within any of the following geographical locations:

- Austin
- Dallas
- Fort Worth
- Houston
- San Antonio
- West Texas
- Texas Panhandle
- Along the Texas/Mexico Border
- Other geographical locations should be decided on a case-by-case basis

If all the above boxes are not checked, a Public Involvement Plan is not necessary. Stop after Section 2 and submit the form.

☒ Public Involvement Plan not applicable to this application. Provide **brief** explanation.

This permit action does not have significant public interest. The proposed location is in a remote, undeveloped, and sparsely populated area for which air permit applications have no history of significant public interest. Moreover, the proposed location is not in any of TCEQ's identified geographical locations nor has TCEQ designated the area on a case-by-case basis.

Section 3. Application Information

Type of Application (check all that apply):

Air ☐ Initial ☐ Federal ☐ Amendment ☐ Standard Permit ☐ Title V

Waste ☐ Municipal Solid Waste ☐ Industrial and Hazardous Waste ☐ Scrap Tire
☐ Radioactive Material Licensing ☐ Underground Injection Control

Water Quality

☐ Texas Pollutant Discharge Elimination System (TPDES)

- ☐ Texas Land Application Permit (TLAP)
- ☐ State Only Concentrated Animal Feeding Operation (CAFO)
- ☐ Water Treatment Plant Residuals Disposal Permit

☐ Class B Biosolids Land Application Permit

☐ Domestic Septage Land Application Registration

Water Rights New Permit

☐ New Appropriation of Water

☐ New or existing reservoir

Amendment to an Existing Water Right

☐ Add a New Appropriation of Water

☐ Add a New or Existing Reservoir

☐ Major Amendment that could affect other water rights or the environment

Section 4. Plain Language Summary

Provide a brief description of planned activities.

Section 5. Community and Demographic Information

Community information can be found using EPA's EJ Screen, U.S. Census Bureau information, or generally available demographic tools.

Information gathered in this section can assist with the determination of whether alternative language notice is necessary. Please provide the following information.

(City)

(County)

(Census Tract)
Please indicate which of these three is the level used for gathering the following information.

☐ City ☐ County ☐ Census Tract

(a) Percent of people over 25 years of age who at least graduated from high school

(b) Per capita income for population near the specified location

(c) Percent of minority population and percent of population by race within the specified location

(d) Percent of Linguistically Isolated Households by language within the specified location

(e) Languages commonly spoken in area by percentage

(f) Community and/or Stakeholder Groups

(g) Historic public interest or involvement

Section 6. Planned Public Outreach Activities

(a) Is this application subject to the public participation requirements of Title 30 Texas Administrative Code (30 TAC) Chapter 39?

☐ Yes ☐ No

(b) If yes, do you intend at this time to provide public outreach other than what is required by rule?

☐ Yes ☐ No

If Yes, please describe.

If you answered "yes" that this application is subject to 30 TAC Chapter 39, answering the remaining questions in Section 6 is not required.

(c) Will you provide notice of this application in alternative languages?

☐ Yes ☐ No

Please refer to Section 5. If more than 5% of the population potentially affected by your application is Limited English Proficient, then you are required to provide notice in the alternative language.

If yes, how will you provide notice in alternative languages?

☐ Publish in alternative language newspaper

☐ Posted on Commissioner's Integrated Database Website

☐ Mailed by TCEQ's Office of the Chief Clerk

☐ Other (specify)

(d) Is there an opportunity for some type of public meeting, including after notice?

☐ Yes ☐ No

(e) If a public meeting is held, will a translator be provided if requested?

☐ Yes ☐ No

(f) Hard copies of the application will be available at the following (check all that apply):

☐ TCEQ Regional Office ☐ TCEQ Central Office

☐ Public Place (specify)

Section 7. Voluntary Submittal

For applicants voluntarily providing this Public Involvement Plan, who are not subject to formal public participation requirements.

Will you provide notice of this application, including notice in alternative languages?

☐ Yes ☐ No

What types of notice will be provided?

☐ Publish in alternative language newspaper

☐ Posted on Commissioner's Integrated Database Website

☐ Mailed by TCEQ's Office of the Chief Clerk

☐ Other (specify)

Texas Commission on Environmental Quality
Table 2
Material Balance

This material balance table is used to quantify possible emissions of air contaminants and special emphasis should be placed on potential air contaminants, for example: If feed contains sulfur, show distribution to all products. Please relate each material (or group of materials) listed to its respective location in the process flow diagram by assigning emission point numbers (taken from the flow diagram) to each material.

List every material involved in each of the following groups	Emission Point No. from Flow Diagram	Process Rate[1] Check appropriate column at right to indicate process rate method.	Measurement	Estimation	Calculation
Raw Materials - Input					
Fuels - Input	Natural Gas Diesel (ULSD)	566,972,625 MMBtu/yr 1,360,000 gallons/yr			X
Products and By-Products - Output	Electricity	Approximately 5,000 MW			X
Solid Wastes - Output					
Liquid Wastes - Output					
Airborne Waste (Solid) - Output		See PI-1 Workbook			X
Airborne Wastes (Gaseous) - Output		See PI-1 Workbook			X

[1] Specify the process rate of the facility using conventional engineering units (e.g., bbl/d, lb/yr, SCFM), and indicate the units next to each number. Standard Conditions: are 68°F 14.7 psia (30 Texas Administrative Code, Section 101.1(99).

Texas Commission on Environmental Quality
Table 6
Boilers and Heaters

Equipment Information			
Type of Device: **Dewpoint Heater (Indirect Fired Water Bath Heater)**			
Manufacturer: TBD		Model Number: TBD	
Emission Point Number (EPN) (from Flow Diagram): **DPHEAT1 – DPHEAT5**			
Fuel Characteristics (choose applicable fuel characteristics, or revise from typical values shown)			
Fuel Type	**Hours Use Per Year**	**Fuel Sulfur Content and Units**	**Higher Heating Value and Units**
☒ **Natural Gas**	8760	0.5 gr / 100 dscf	1020 Btu/scf
☐ No. 2 Fuel Oil			
☐ Propane			
☐ Plant Fuel Gas			
☐ Landfill Gas			
☐ Other:_____			
Fuel Firing Rate			
Design Maximum: **8.8**		Units (MMBtu/hr is preferred): **MMBtu/hr**	
Stack Parameters (not required if represented on page 2 of Table 1(a))			
Stack Diameter (ft): **2.17**		Stack Height (ft): **25**	
Stack gas velocity at maximum fuel flow rate (ft/second):			
Stack Gas Temperature (˚F): **763**		Exhaust (scfm*): **4600**	
Exhaust Air Flow and Excess Air			
Exhaust Air Flow (scfm*):			
Percentage of Excess Air:			
Control Device (if present)			
Add on Control Device (type, description): N/A			

Texas Commission on Environmental Quality
Table 6
Boilers and Heaters

Characteristics of Output: Outlet Concentrations to be used as Emission Factors (confirm applicable fuel characteristics, revise from typical values shown, or enter applicable value)	
Material	**Chemical Composition of Exit Gas Released (% by volume)**
☒ NO_x	**0.011 lb/MMBtu**
☒ CO	**50 ppmv corrected to 3% O_2**
☒ VOC	**0.0054 lb/MMBtu**
☒ Formaldehyde (should be subset of VOC)	**0.0000735 lb/MMBtu**
☒ SO_2	**Assume 100% conversion of fuel sulfur to SO_2****
☒ $PM/PM_{10}/PM_{2.5}$	**0.0075 lb/MMBtu**
☐ Others (such as Ammonia):_____	

Attach an explanation on how temperature, air flow rate, excess air or other operating variables are controlled.

* Standard Conditions: 68˚F, 14.7 psia

** Values shown are typical for natural gas fired boilers; confirm with your vendor.

Texas Commission on Environmental Quality
Table 6
Boilers and Heaters

Equipment Information			
Type of Device: **Dewpoint Heater (Indirect Fired Water Bath Heater)**			
Manufacturer: TBD		Model Number: TBD	
Emission Point Number (EPN) (from Flow Diagram): **DPHEAT6 – DPHEAT19**			
Fuel Characteristics (choose applicable fuel characteristics, or revise from typical values shown)			
Fuel Type	**Hours Use Per Year**	**Fuel Sulfur Content and Units**	**Higher Heating Value and Units**
☒ **Natural Gas**	8760	0.5 gr / 100 dscf	1020 Btu/scf
☐ No. 2 Fuel Oil			
☐ Propane			
☐ Plant Fuel Gas			
☐ Landfill Gas			
☐ Other:_____			
Fuel Firing Rate			
Design Maximum: **11.1**		Units (MMBtu/hr is preferred): **MMBtu/hr**	
Stack Parameters (not required if represented on page 2 of Table 1(a))			
Stack Diameter (ft): **2.17**		Stack Height (ft): **25**	
Stack gas velocity at maximum fuel flow rate (ft/second):			
Stack Gas Temperature (˚F): **763**		Exhaust (scfm*): **4600**	
Exhaust Air Flow and Excess Air			
Exhaust Air Flow (scfm*):			
Percentage of Excess Air:			
Control Device (if present)			
Add on Control Device (type, description): N/A			

Texas Commission on Environmental Quality
Table 6
Boilers and Heaters

Characteristics of Output: Outlet Concentrations to be used as Emission Factors (confirm applicable fuel characteristics, revise from typical values shown, or enter applicable value)	
Material	**Chemical Composition of Exit Gas Released (% by volume)**
☒ NO_x	**0.011 lb/MMBtu**
☒ CO	**50 ppmv corrected to 3% O_2**
☒ VOC	**0.0054 lb/MMBtu**
☒ Formaldehyde (should be subset of VOC)	**0.0000735 lb/MMBtu**
☒ SO_2	**Assume 100% conversion of fuel sulfur to SO_2****
☒ $PM/PM_{10}/PM_{2.5}$	**0.0075 lb/MMBtu**
☐ Others (such as Ammonia):_____	

Attach an explanation on how temperature, air flow rate, excess air or other operating variables are controlled.

* Standard Conditions: 68˚F, 14.7 psia

** Values shown are typical for natural gas fired boilers; confirm with your vendor.

Texas Commission on Environmental Quality
Table 7(a)
Vertical Fixed Roof Storage Tank Summary

I. Tank Identification ***(Use a separate form for each tank)***			
Applicant's Name: **Pacifico GW LLC**			
Location *(indicate on plot plan and provide coordinates)*:			
Tank No.: **TNK-DSL1 through TNK-DSL4**		Emission Point No. (EPN) *(from flow diagram)*: **TNK-DSL1 through TNK-DSL4**	
FIN: **TNK-DSL1 through TNK-DSL4**		CIN:	
Status: ☒ New Tank	☐ Altered Tank	☐ Relocation	☐ Change of Service
Previous Permit No., Permit by Rule No., or Exemption No.:			
II. Tank Physical Characteristics			
Dimensions			
Shell Height *(ft.)*: 30	Diameter *(ft.)*: 12	Maximum Liquid Height *(ft.)*: 29	
Nominal Capacity or Working Volume *(gallons)*: 25,000		Turnovers per year: 10.6	
Net Throughput *(gallons/year)*: 250,000		Maximum Filling Rate *(gallons/hour)*: 2,000	
Paint Characteristics			
Shell Color/Shade: ☒ White/White	☐ Aluminum/Specular	☐ Aluminum/Diffuse	
☐ Gray/Light	☐ Gray/Medium	☐ Red/Primer	
☐ Other:_____			
Shell Condition: ☒ Good	☐ Poor		
Roof Color/Shade: ☒ White/White	☐ Aluminum/Specular	☐ Aluminum/Diffuse	
☐ Gray/Light	☐ Gray/Medium	☐ Red/Primer	
☐ Other:_____			
Roof Condition: ☒ Good	☐ Poor		
Rood Characteristics			
Roof Type: ☐ Dome	☒ Cone		
Roof Height *(not including shell height) (ft.)*:0.375			
Radius *(Dome Roof Only) (ft.)*		Slope *(Cone Roof Only) (ft/ft) 0.0625*	
Breather Vent Settings			
Combination Vent Valve Number:			
Combination Vent Valve Pressure Setting *(psig)*:			
Combination Vent Valve Vacuum Setting *(psig)*:			
SPECIFY "Atmosphere" or Discharging to *(name of abatement device)*:			
Pressure Vent Valve Number:			
Pressure Vent Valve Pressure Setting *(psig)*: 0.03			
SPECIFY "Atmosphere" or Discharging to *(name of abatement device)*:Atmosphere			

Texas Commission on Environmental Quality
Table 7(a)
Vertical Fixed Roof Storage Tank Summary

Permit No.: TBD	Tank No.: TNK-DSL1 through TNK-DSL4
II. Tank Physical Characteristics	
Breather Vent Settings *(continued)*	
Vacuum Vent Valve Number:	
Vacuum Vent Valve Vacuum Setting *(psig)*: -0.03	
Open Vent Valve Number:	
SPECIFY "Atmosphere" or Discharging to *(name of abatement device)*: Atmosphere	
III. Liquid Properties of Stored Material	
Chemical Category: ☐ Organic Liquid	☒ Petroleum Distillates ☐ Crude Oils
☒ Single *(Complete Section III.1.)*	☐ Multi-Component Liquid *(Complete Section III.2.)*
1. Single Component Information	
Chemical Name: Diesel Fuel	
CAS Number: 68334-30-5	
Average Liquid Surface Temperature *(˚F)*: 66.3	
True Vapor Pressure at Average Liquid Surface Temperature *(psia)*: 0.01	
Liquid Molecular Weight: 130	
2. Multiple Component Information	
Mixture Name:	
Average Liquid Surface Temperature *(˚F)*:	
Minimum Liquid Surface Temperature (*˚F*)*:*	
Maximum Liquid Surface Temperature *(˚F)*:	
True Vapor Pressure at Average Liquid Surface Temperature *(psia)*:	
True Vapor Pressure at Minimum Liquid Surface Temperature *(psia)*:	
True Vapor Pressure at Maximum Liquid Surface Temperature *(psia)*:	
Liquid Molecular Weight:	
Vapor Molecular Weight:	

Chemical Components Information

Chemical Name	CAS No.	Percent of Total Liquid Weight *(typical)*	Percent of Total Vapor Weight *(typical)*	Molecular Weight

Texas Commission on Environmental Quality
Table 7(a)
Vertical Fixed Roof Storage Tank Summary

I. Tank Identification ***(Use a separate form for each tank)***			
Applicant's Name: **Pacifico GW LLC**			
Location *(indicate on plot plan and provide coordinates)*:			
Tank No.: **TNK-DSL5 through TNK-DSL7**		Emission Point No. (EPN) *(from flow diagram)*: **TNK-DSL5 through TNK-DSL7**	
FIN: **TNK-DSL5 through TNK-DSL7**		CIN:	
Status: ☒ New Tank	☐ Altered Tank	☐ Relocation	☐ Change of Service
Previous Permit No., Permit by Rule No., or Exemption No.:			
II. Tank Physical Characteristics			
Dimensions			
Shell Height *(ft.)*: 16.4	Diameter *(ft.)*: 11.8	Maximum Liquid Height *(ft.)*: 15.4	
Nominal Capacity or Working Volume *(gallons)*: 12,000		Turnovers per year: 10.1	
Net Throughput *(gallons/year)*: 120,000	Maximum Filling Rate *(gallons/hour)*: 2,000		
Paint Characteristics			
Shell Color/Shade: ☒ White/White	☐ Aluminum/Specular	☐ Aluminum/Diffuse	
☐ Gray/Light	☐ Gray/Medium	☐ Red/Primer	
☐ Other:_____			
Shell Condition: ☒ Good	☐ Poor		
Roof Color/Shade: ☒ White/White	☐ Aluminum/Specular	☐ Aluminum/Diffuse	
☐ Gray/Light	☐ Gray/Medium	☐ Red/Primer	
☐ Other:_____			
Roof Condition: ☒ Good	☐ Poor		
Rood Characteristics			
Roof Type: ☐ Dome	☒ Cone		
Roof Height *(not including shell height) (ft.)*:0.37			
Radius *(Dome Roof Only) (ft.)*		Slope *(Cone Roof Only) (ft/ft) 0.0625*	
Breather Vent Settings			
Combination Vent Valve Number:			
Combination Vent Valve Pressure Setting *(psig)*:			
Combination Vent Valve Vacuum Setting *(psig)*:			
SPECIFY "Atmosphere" or Discharging to *(name of abatement device)*:			
Pressure Vent Valve Number:			
Pressure Vent Valve Pressure Setting *(psig)*: 0.03			
SPECIFY "Atmosphere" or Discharging to *(name of abatement device)*:Atmosphere			

Texas Commission on Environmental Quality
Table 7(a)
Vertical Fixed Roof Storage Tank Summary

Permit No.: TBD	Tank No.: TNK-DSL5 through TNK-DSL7
II. Tank Physical Characteristics	
Breather Vent Settings *(continued)*	
Vacuum Vent Valve Number:	
Vacuum Vent Valve Vacuum Setting *(psig)*: -0.03	
Open Vent Valve Number:	
SPECIFY "Atmosphere" or Discharging to *(name of abatement device)*: Atmosphere	
III. Liquid Properties of Stored Material	
Chemical Category: ☐ Organic Liquid	☒ Petroleum Distillates ☐ Crude Oils
☒ Single *(Complete Section III.1.)*	☐ Multi-Component Liquid *(Complete Section III.2.)*
1. Single Component Information	
Chemical Name: Diesel Fuel	
CAS Number: 68334-30-5	
Average Liquid Surface Temperature *(˚F)*: 66.5	
True Vapor Pressure at Average Liquid Surface Temperature *(psia)*: 0.01	
Liquid Molecular Weight: 130	
2. Multiple Component Information	
Mixture Name:	
Average Liquid Surface Temperature *(˚F)*:	
Minimum Liquid Surface Temperature (*˚F*)*:*	
Maximum Liquid Surface Temperature *(˚F)*:	
True Vapor Pressure at Average Liquid Surface Temperature *(psia)*:	
True Vapor Pressure at Minimum Liquid Surface Temperature *(psia)*:	
True Vapor Pressure at Maximum Liquid Surface Temperature *(psia)*:	
Liquid Molecular Weight:	
Vapor Molecular Weight:	
Chemical Components Information	

Chemical Name	CAS No.	Percent of Total Liquid Weight *(typical)*	Percent of Total Vapor Weight *(typical)*	Molecular Weight

Texas Commission on Environmental Quality
Table 29 Reciprocating Engines

I. Engine Data			
Manufacturer: Wartsila	Model No. 18V50SG	Serial No.	Manufacture Date:
Rebuilds Date:	No. of Cylinders:	Compression Ratio:	EPN: ENGINE-1 and ENGINE-2

Application: ☐ Gas Compression ☒ Electric Generation ☐ Refrigeration ☐ Emergency/Stand by

☒ 4 Stroke Cycle ☐ 2 Stroke Cycle ☐ Carbureted ☒ Spark Ignited ☐ Dual Fuel ☐ Fuel Injected

☐ Diesel ☐ Naturally Aspirated ☐ Blower /Pump Scavenged ☐ Turbo Charged and I.C. ☐ Turbo Charged

☐ Intercooled ☐ I.C. Water Temperature ☒ Lean Burn ☐ Rich Burn

Ignition/Injection Timing: Fixed: Variable:

Manufacture Horsepower Rating: 25238 Proposed Horsepower Rating: 25238

Discharge Parameters

Stack Height (Feet)	Stack Diameter (Feet)	Stack Temperature (°F)	Exit Velocity (FPS)
60	5.25	704	60

II. Fuel Data

Type of Fuel: ☐ Field Gas ☐ Landfill Gas ☐ LP Gas ☒ Natural Gas ☐ Digester Gas ☐ Diesel

Fuel Consumption (BTU/bhp-hr): Heating Value: Lower Heating Value:

Sulfur Content (grains/100 scf - weight %): 0.5 gr/100 dscf

III. Emission Factors (Before Control)

NO_X		CO		SO_2		VOC		Formaldehyde		PM_{10}	
g/hp-hr	ppmv	g/hp-hr	ppmv	g/hp-hr	ppmv	g/hp-hr	ppmv	g/hp-hr	ppmv	g/hp-hr	ppmv

Source of Emission Factors: ☒ Manufacturer Data ☐ AP-42 ☐ Other (specify):

IV. Emission Factors (Post Control)

NO_X		CO		SO_2		VOC		Formaldehyde		PM_{10}	
g/hp-hr	ppmv	g/hp-hr	ppmv	g/hp-hr	ppmv	g/hp-hr	ppmv	g/hp-hr	ppmv	g/hp-hr	ppmv
0.7		2		0.0017		0.7			14	0.0115	

Method of Emission Control: ☐ NSCR Catalyst ☐ Lean Operation ☐ Parameter Adjustment

☐ Stratified Charge ☐ JLCC Catalyst ☐ Other (Specify): _____

Note: *Must submit a copy of any manufacturer control information that demonstrates control efficiency.*

Is Formaldehyde included in the VOCs? ☒ Yes ☐ No

V. Federal and State Standards (Check all that apply)

☒ NSPS JJJJ ☒ MACT ZZZZ ☐ NSPS IIII ☐ Title 30 Chapter 117 - List County: Pecos

VI. Additional Information

1. Submit a copy of the engine manufacturer's site rating or general rating specification data.
2. Submit a typical fuel gas analysis, including sulfur content and heating value. For gaseous fuels, provide mole percent of constituents.
3. Submit description of air/fuel ratio control system (manufacturer information is acceptable).

Reset Form Print Form

Texas Commission on Environmental Quality
Table 29 Reciprocating Engines

I. Engine Data

Manufacturer:	Model No.	Serial No.	Manufacture Date:
Cummins	QSK95		
Rebuilds Date:	**No. of Cylinders:**	**Compression Ratio:**	**EPN:**
	16	15.5:1	EGEN1 through EGEN15

Application: ☒ Gas Compression ☐ Electric Generation ☐ Refrigeration ☒ Emergency/Stand by

☒ 4 Stroke Cycle ☐ 2 Stroke Cycle ☐ Carbureted ☐ Spark Ignited ☐ Dual Fuel ☐ Fuel Injected

☒ Diesel ☐ Naturally Aspirated ☐ Blower /Pump Scavenged ☐ Turbo Charged and I.C. ☒ Turbo Charged

☐ Intercooled ☐ I.C. Water Temperature ☐ Lean Burn ☐ Rich Burn

Ignition/Injection Timing: Fixed: Variable:

Manufacture Horsepower Rating: 4,023 Proposed Horsepower Rating: 4,023

Discharge Parameters

Stack Height (Feet)	Stack Diameter (Feet)	Stack Temperature (°F)	Exit Velocity (FPS)
26	2.17	825	102.3

II. Fuel Data

Type of Fuel: ☐ Field Gas ☐ Landfill Gas ☐ LP Gas ☐ Natural Gas ☐ Digester Gas ☒ Diesel

Fuel Consumption (BTU/bhp-hr): Heating Value: Lower Heating Value:

Sulfur Content (grains/100 scf - weight %): 15 ppm

III. Emission Factors (Before Control)

NO_X		CO		SO_2		VOC		Formaldehyde		PM_{10}	
g/hp-hr	ppmv	g/hp-hr	ppmv	g/hp-hr	ppmv	g/hp-hr	ppmv	g/hp-hr	ppmv	g/hp-hr	ppmv

Source of Emission Factors: ☒ Manufacturer Data ☐ AP-42 ☐ Other (specify):

IV. Emission Factors (Post Control)

NO_X		CO		SO_2		VOC		Formaldehyde		PM_{10}	
g/hp-hr	ppmv	g/hp-hr	ppmv	g/hp-hr	ppmv	g/hp-hr	ppmv	g/hp-hr	ppmv	g/hp-hr	ppmv
5.21		0.58		0.006		0.3			0.49	0.19	

Method of Emission Control: ☐ NSCR Catalyst ☐ Lean Operation ☐ Parameter Adjustment
☐ Stratified Charge ☐ JLCC Catalyst ☐ Other (Specify):_____

Note: *Must submit a copy of any manufacturer control information that demonstrates control efficiency.*

Is Formaldehyde included in the VOCs? ☒ Yes ☐ No

V. Federal and State Standards (Check all that apply)

☐ NSPS JJJJ ☒ MACT ZZZZ ☒ NSPS IIII ☐ Title 30 Chapter 117 - List County: Pecos

VI. Additional Information

1. Submit a copy of the engine manufacturer's site rating or general rating specification data.
2. Submit a typical fuel gas analysis, including sulfur content and heating value. For gaseous fuels, provide mole percent of constituents.
3. Submit description of air/fuel ratio control system (manufacturer information is acceptable).

Reset Form Print Form

Texas Commission on Environmental Quality
Table 29 Reciprocating Engines

I. Engine Data

Manufacturer:	Model No.	Serial No.	Manufacture Date:
Clarke	UFADX8		
Rebuilds Date:	**No. of Cylinders:**	**Compression Ratio:**	**EPN:**
	6	17:1	FPUMP1 and FPUMP2

Application: ☐ Gas Compression ☐ Electric Generation ☐ Refrigeration ☒ Emergency/Stand by

☒ 4 Stroke Cycle ☐ 2 Stroke Cycle ☐ Carbureted ☐ Spark Ignited ☐ Dual Fuel ☐ Fuel Injected

☒ Diesel ☐ Naturally Aspirated ☐ Blower /Pump Scavenged ☐ Turbo Charged and I.C. ☐ Turbo Charged

☐ Intercooled ☐ I.C. Water Temperature ☐ Lean Burn ☐ Rich Burn

Ignition/Injection Timing: Fixed: Variable:

Manufacture Horsepower Rating: 305 Proposed Horsepower Rating: 305

Discharge Parameters

Stack Height (Feet)	Stack Diameter (Feet)	Stack Temperature (°F)	Exit Velocity (FPS)
10	0.5	961	118.84

II. Fuel Data

Type of Fuel: ☐ Field Gas ☐ Landfill Gas ☐ LP Gas ☐ Natural Gas ☐ Digester Gas ☒ Diesel

Fuel Consumption (BTU/bhp-hr): Heating Value: Lower Heating Value:

Sulfur Content (grains/100 scf - weight %): 15 ppm

III. Emission Factors (Before Control)

NO_X		CO		SO_2		VOC		Formaldehyde		PM_{10}	
g/hp-hr	ppmv	g/hp-hr	ppmv	g/hp-hr	ppmv	g/hp-hr	ppmv	g/hp-hr	ppmv	g/hp-hr	ppmv

Source of Emission Factors: ☒ Manufacturer Data ☐ AP-42 ☐ Other (specify):

IV. Emission Factors (Post Control)

NO_X		CO		SO_2		VOC		Formaldehyde		PM_{10}	
g/hp-hr	ppmv	g/hp-hr	ppmv	g/hp-hr	ppmv	g/hp-hr	ppmv	g/hp-hr	ppmv	g/hp-hr	ppmv
2.69		0.4		0.005		0.06			0.49	0.06	

Method of Emission Control: ☐ NSCR Catalyst ☐ Lean Operation ☐ Parameter Adjustment

☐ Stratified Charge ☐ JLCC Catalyst ☐ Other (Specify):_____

Note: *Must submit a copy of any manufacturer control information that demonstrates control efficiency.*

Is Formaldehyde included in the VOCs? ☒ Yes ☐ No

V. Federal and State Standards (Check all that apply)

☐ NSPS JJJJ ☐ MACT ZZZZ ☒ NSPS IIII ☐ Title 30 Chapter 117 - List County: Pecos

VI. Additional Information

1. Submit a copy of the engine manufacturer's site rating or general rating specification data.
2. Submit a typical fuel gas analysis, including sulfur content and heating value. For gaseous fuels, provide mole percent of constituents.
3. Submit description of air/fuel ratio control system (manufacturer information is acceptable).

Reset Form Print Form

Texas Commission on Environmental Quality
Table 31
Combustion Turbines

Equipment Information	
Manufacturer: **Siemens Energy**	
Model No.: **SGT-800**	Serial No.: **TBD**
Emission Point Number (EPN) From Table 1(a): **CT-1A through CT-21A**	
Turbine Application	
☒ Electric Generation ☒ Base Load ☐ Peaking ☐ Load Following ☐ Gas Compression	
☐ Other (specify):	
Cycle	
☒ Simple Cycle 8760 Hours Per Year ☐ Regenerative Cycle ☐ Cogeneration ☐ Combined Cycle	
Model represented is based on *(see 30 TAC § 116.116(a)):*	
☒ Preliminary Design ☐ Contract Award ☐ Other (specify):	
Nominal Power Output at Baseload, ISO: **63** ☒ MW or ☐ hp	
Manufacturer's rated gross heat rate at baseload at expected conditions (efficiency in BTU/kW-hr): **8320 BTU/kWh**	
Fuel Data	
Primary Fuels:	
☒ Natural Gas (Sulfur content **0.5** gr S/100 dscf; HHV **1020** Btu/scf)	
☐ Process Offgas ☐ Landfill/Digester Gas ☐ Fuel Oil ☐ Refinery Gas	
☐ Other (specify):	
Backup Fuels:	
☒ Not Provided ☐ Process Offgas ☐ Ethane ☐ Fuel Oil ☐ Refinery Gas	
☐ Other (specify):	
If using fuels other than natural gas, attach fuel analyses, including maximum sulfur content, heating value (specify LHV or HHV) and mole percent of gaseous constituents.	
Emissions Data	
Attach manufacturer's information showing emissions of NO_X, CO, VOC, SO_X, and PM for each proposed fuel at turbine loads and site ambient temperatures representative of the range of proposed operation. The information must be sufficient to determine maximum hourly and annual emission rates. Annual emissions may be based on a conservatively low approximation of site annual average temperature. Provide emissions in pounds per hour and except for PM, parts per million by volume at actual conditions and corrected to dry, 15% oxygen conditions. In Table 1(a), provide speciation of $PM/PM_{10}/PM_{2.5}$.	
Method of Emission Control:	
☐ Lean Premix Combustors ☒ Oxidation Catalyst ☐ Water Injection	
☒ Low-NO_X Combustors ☒ SCR Catalyst ☐ Steam Injection	
☐ Other (specify):	

Texas Commission on Environmental Quality
Table 31
Combustion Turbine

Additional Information
On separate sheets attach the following: A. Details regarding principle of operation of emission controls. If add-on equipment is used, provide make and model and manufacturer's information. Example details include: controller input variables and operational algorithms for water or ammonia injection systems, combustion mode versus turbine load for variable mode combustors, etc. B. Stack parameters (not required if represented on Page 2 of Table 1(a)). C. If fired duct burners are used (as often used with a Combined Cycle Heat Recovery Steam Generator), supplementary fuel firing information as specified on Table 6, Boilers and Heaters (TCEQ Form Number 10163).

Texas Commission on Environmental Quality
Table 31
Combustion Turbines

Equipment Information	
Manufacturer: **Doosan, GE, Siemens Energy, and/or Mitsubishi**	
Model No.: **Doosan DGT6-300H S2, GE 7HA.03, Siemens SGT6-9000HL, and/or Mitsubishi M501JAC**	Serial No.: **TBD**
Emission Point Number (EPN) From Table 1(a): **CT-1B through CT-14B**	
Turbine Application	
☒ Electric Generation ☒ Base Load ☐ Peaking ☐ Load Following ☐ Gas Compression ☐ Other (specify):	
Cycle	
☒ Simple Cycle **8760** Hours Per Year ☐ Regenerative Cycle ☐ Cogeneration ☐ Combined Cycle	
Model represented is based on *(see 30 TAC § 116.116(a)):* ☐ Preliminary Design ☐ Contract Award ☐ Other (specify):	
Nominal Power Output at Baseload, ISO: **433** ☒ MW or ☐ hp	
Manufacturer's rated gross heat rate at baseload at expected conditions (efficiency in BTU/kW-hr): **7965 BTU/kWh**	
Fuel Data	
Primary Fuels: ☒ Natural Gas (Sulfur content **0.5** gr S/100 dscf; HHV **1020** Btu/scf) ☐ Process Offgas ☐ Landfill/Digester Gas ☐ Fuel Oil ☐ Refinery Gas ☐ Other (specify):	
Backup Fuels: ☒ Not Provided ☐ Process Offgas ☐ Ethane ☐ Fuel Oil ☐ Refinery Gas ☐ Other (specify):	
If using fuels other than natural gas, attach fuel analyses, including maximum sulfur content, heating value (specify LHV or HHV) and mole percent of gaseous constituents.	
Emissions Data	
Attach manufacturer's information showing emissions of NO_X, CO, VOC, SO_X, and PM for each proposed fuel at turbine loads and site ambient temperatures representative of the range of proposed operation. The information must be sufficient to determine maximum hourly and annual emission rates. Annual emissions may be based on a conservatively low approximation of site annual average temperature. Provide emissions in pounds per hour and except for PM, parts per million by volume at actual conditions and corrected to dry, 15% oxygen conditions. In Table 1(a), provide speciation of $PM/PM_{10}/PM_{2.5}$.	
Method of Emission Control: ☐ Lean Premix Combustors ☒ Oxidation Catalyst ☐ Water Injection ☒ Low-NO_X Combustors ☒ SCR Catalyst ☐ Steam Injection ☐ Other (specify):	

Texas Commission on Environmental Quality
Table 31
Combustion Turbine

Additional Information
On separate sheets attach the following: A. Details regarding principle of operation of emission controls. If add-on equipment is used, provide make and model and manufacturer's information. Example details include: controller input variables and operational algorithms for water or ammonia injection systems, combustion mode versus turbine load for variable mode combustors, etc. B. Stack parameters (not required if represented on Page 2 of Table 1(a)). C. If fired duct burners are used (as often used with a Combined Cycle Heat Recovery Steam Generator), supplementary fuel firing information as specified on Table 6, Boilers and Heaters (TCEQ Form Number 10163).

Table 1F
Air Quality Application Supplement
Texas Commission on Environmental Quality

Permit Number:	TBD
Application Submittal Date:	August 4, 2025
Company:	Pacifico GW LLC
Regulated Entity Number:	RN: TBD
Named Source (Y/N):	☐ Yes ☒ No
City:	Fort Stockton (nearest city)
County:	Pecos
Permit Activity:	☒ New Source ☐ Modification

Complete for all Pollutants with a Project Emission Increase.

Questions	Ozone VOC	Ozone NO_X	CO	PM	PM_{10}	$PM_{2.5}$	NO_x	SO_2	CO_2e[1]	H_2SO_4[1]
Is nonattainment potentially applicable? (Y/N)	No	No	No	No	No	No	No	No	No	No
Is PSD potentially applicable? (Y/N)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Existing site PTE (tpy)?	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total project emissions increase (tpy from Table 2F)?	838	2,830	5,955	999	995	991	2,830	398	33,212,285	61
Is the existing site a major source? (Y/N)	No	No	No	No	No	No	No	No	No	No
If not, is the project a major source by itself? (Y/N)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
If site is major source, is the project increase significant? (Y/N)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Net contemporaneous change, including proposed project, from Table 3F (tpy)?	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Major NSR Applicable? (Y/N)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

[1] Other pollutants. [Pb, H_2S, TRS, H_2SO_4, Fluoride excluding HF, Greenhouse Gases as CO_2e, etc.].

Table 1F
Air Quality Application Supplement
Texas Commission on Environmental Quality

If netting required, estimated start of construction date (MM/DD/YR):	NA
Beginning of Contemporaneous Period, 5 years prior to start of construction (MM/DD/YR):	NA
End of Contemporaneous Period, the start of operation date (MM/DD/YR):	NA#

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**VOC**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
	Affected or Modified Facilities [2]		**Permit No.**	**Actual Emissions [3]**	**Baseline Emissions [4]**	**Proposed Emissions [5]**	**Projected Actual Emissions**	**Difference (B-A) [6]**	**Correction [7] (Could Have Accomodated)**	**Project Increase [8]**
	FIN	**EPN [2]**								
1	NGFUG	NGFUG	TBD	NA	NA	0.00	NA	NA	NA	4.62E-03
2	CT-1A	CT-1A	TBD	NA	NA	6.49	NA	NA	NA	6.49
3	CT-2A	CT-2A	TBD	NA	NA	6.49	NA	NA	NA	6.49
4	CT-3A	CT-3A	TBD	NA	NA	6.49	NA	NA	NA	6.49
5	CT-4A	CT-4A	TBD	NA	NA	6.49	NA	NA	NA	6.49
6	CT-5A	CT-5A	TBD	NA	NA	6.49	NA	NA	NA	6.49
7	CT-6A	CT-6A	TBD	NA	NA	6.49	NA	NA	NA	6.49
8	CT-7A	CT-7A	TBD	NA	NA	6.49	NA	NA	NA	6.49
9	CT-8A	CT-8A	TBD	NA	NA	6.49	NA	NA	NA	6.49
10	CT-9A	CT-9A	TBD	NA	NA	6.49	NA	NA	NA	6.49
11	CT-10A	CT-10A	TBD	NA	NA	6.49	NA	NA	NA	6.49
12	CT-11A	CT-11A	TBD	NA	NA	6.49	NA	NA	NA	6.49
13	CT-12A	CT-12A	TBD	NA	NA	6.49	NA	NA	NA	6.49
14	CT-13A	CT-13A	TBD	NA	NA	6.49	NA	NA	NA	6.49
15	CT-14A	CT-14A	TBD	NA	NA	6.49	NA	NA	NA	6.49
16	CT-15A	CT-15A	TBD	NA	NA	6.49	NA	NA	NA	6.49
17	CT-16A	CT-16A	TBD	NA	NA	6.49	NA	NA	NA	6.49
18	CT-17A	CT-17A	TBD	NA	NA	6.49	NA	NA	NA	6.49
19	CT-18A	CT-18A	TBD	NA	NA	6.49	NA	NA	NA	6.49
20	CT-19A	CT-19A	TBD	NA	NA	6.49	NA	NA	NA	6.49
21	CT-20A	CT-20A	TBD	NA	NA	6.49	NA	NA	NA	6.49

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**VOC**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
	Affected or Modified Facilities [2]		**Permit No.**	**Actual Emissions [3]**	**Baseline Emissions [4]**	**Proposed Emissions [5]**	**Projected Actual Emissions**	**Difference (B-A) [6]**	**Correction [7] (Could Have Accomodated)**	**Project Increase [8]**
	FIN	**EPN [2]**								
22	CT-21A	CT-21A	TBD	NA	NA	6.49	NA	NA	NA	6.49
23	CT-1B	CT-1B	TBD	NA	NA	46.62	NA	NA	NA	46.62
24	CT-2B	CT-2B	TBD	NA	NA	46.62	NA	NA	NA	46.62
25	CT-3B	CT-3B	TBD	NA	NA	46.62	NA	NA	NA	46.62
26	CT-4B	CT-4B	TBD	NA	NA	46.62	NA	NA	NA	46.62
27	CT-5B	CT-5B	TBD	NA	NA	46.62	NA	NA	NA	46.62
28	CT-6B	CT-6B	TBD	NA	NA	46.62	NA	NA	NA	46.62
29	CT-7B	CT-7B	TBD	NA	NA	46.62	NA	NA	NA	46.62
30	CT-8B	CT-8B	TBD	NA	NA	46.62	NA	NA	NA	46.62
31	CT-9B	CT-9B	TBD	NA	NA	46.62	NA	NA	NA	46.62
32	CT-10B	CT-10B	TBD	NA	NA	46.62	NA	NA	NA	46.62
33	CT-11B	CT-11B	TBD	NA	NA	46.62	NA	NA	NA	46.62
34	CT-12B	CT-12B	TBD	NA	NA	46.62	NA	NA	NA	46.62
35	CT-13B	CT-13B	TBD	NA	NA	46.62	NA	NA	NA	46.62
36	CT-14B	CT-14B	TBD	NA	NA	46.62	NA	NA	NA	46.62
37	DPHEAT1	DPHEAT1	TBD	NA	NA	0.21	NA	NA	NA	0.21
38	DPHEAT2	DPHEAT2	TBD	NA	NA	0.21	NA	NA	NA	0.21
39	DPHEAT3	DPHEAT3	TBD	NA	NA	0.21	NA	NA	NA	0.21
40	DPHEAT4	DPHEAT4	TBD	NA	NA	0.21	NA	NA	NA	0.21
41	DPHEAT5	DPHEAT5	TBD	NA	NA	0.21	NA	NA	NA	0.21
42	DPHEAT6	DPHEAT6	TBD	NA	NA	0.26	NA	NA	NA	0.26

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**VOC**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
	Affected or Modified Facilities [2]		**Permit No.**	**Actual Emissions [3]**	**Baseline Emissions [4]**	**Proposed Emissions [5]**	**Projected Actual Emissions**	**Difference (B-A) [6]**	**Correction [7] (Could Have Accomodated)**	**Project Increase [8]**
	FIN	**EPN [2]**								
43	DPHEAT7	DPHEAT7	TBD	NA	NA	0.26	NA	NA	NA	0.26
44	DPHEAT8	DPHEAT8	TBD	NA	NA	0.26	NA	NA	NA	0.26
45	DPHEAT9	DPHEAT9	TBD	NA	NA	0.26	NA	NA	NA	0.26
46	DPHEAT10	DPHEAT10	TBD	NA	NA	0.26	NA	NA	NA	0.26
47	DPHEAT11	DPHEAT11	TBD	NA	NA	0.26	NA	NA	NA	0.26
48	DPHEAT12	DPHEAT12	TBD	NA	NA	0.26	NA	NA	NA	0.26
49	DPHEAT13	DPHEAT13	TBD	NA	NA	0.26	NA	NA	NA	0.26
50	DPHEAT14	DPHEAT14	TBD	NA	NA	0.26	NA	NA	NA	0.26
51	DPHEAT15	DPHEAT15	TBD	NA	NA	0.26	NA	NA	NA	0.26
52	DPHEAT16	DPHEAT16	TBD	NA	NA	0.26	NA	NA	NA	0.26
53	DPHEAT17	DPHEAT17	TBD	NA	NA	0.26	NA	NA	NA	0.26
54	DPHEAT18	DPHEAT18	TBD	NA	NA	0.26	NA	NA	NA	0.26
55	DPHEAT19	DPHEAT19	TBD	NA	NA	0.26	NA	NA	NA	0.26
56	OILVENT1	OILVENT1	TBD	NA	NA	0.08	NA	NA	NA	0.08
57	OILVENT2	OILVENT2	TBD	NA	NA	0.08	NA	NA	NA	0.08
58	OILVENT3	OILVENT3	TBD	NA	NA	0.08	NA	NA	NA	0.08
59	OILVENT4	OILVENT4	TBD	NA	NA	0.08	NA	NA	NA	0.08
60	OILVENT5	OILVENT5	TBD	NA	NA	0.08	NA	NA	NA	0.08
61	OILVENT6	OILVENT6	TBD	NA	NA	0.08	NA	NA	NA	0.08
62	OILVENT7	OILVENT7	TBD	NA	NA	0.08	NA	NA	NA	0.08
63	OILVENT8	OILVENT8	TBD	NA	NA	0.08	NA	NA	NA	0.08

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**VOC**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
	Affected or Modified Facilities [2]		**Permit No.**	**Actual Emissions [3]**	**Baseline Emissions [4]**	**Proposed Emissions [5]**	**Projected Actual Emissions**	**Difference (B-A) [6]**	**Correction [7] (Could Have Accomodated)**	**Project Increase [8]**
	FIN	**EPN [2]**								
64	OILVENT9	OILVENT9	TBD	NA	NA	0.08	NA	NA	NA	0.08
65	OILVENT10	OILVENT10	TBD	NA	NA	0.08	NA	NA	NA	0.08
66	OILVENT11	OILVENT11	TBD	NA	NA	0.08	NA	NA	NA	0.08
67	OILVENT12	OILVENT12	TBD	NA	NA	0.08	NA	NA	NA	0.08
68	OILVENT13	OILVENT13	TBD	NA	NA	0.08	NA	NA	NA	0.08
69	OILVENT14	OILVENT14	TBD	NA	NA	0.08	NA	NA	NA	0.08
70	OILVENT15	OILVENT15	TBD	NA	NA	0.08	NA	NA	NA	0.08
71	OILVENT16	OILVENT16	TBD	NA	NA	0.08	NA	NA	NA	0.08
72	OILVENT17	OILVENT17	TBD	NA	NA	0.08	NA	NA	NA	0.08
73	OILVENT18	OILVENT18	TBD	NA	NA	0.08	NA	NA	NA	0.08
74	OILVENT19	OILVENT19	TBD	NA	NA	0.08	NA	NA	NA	0.08
75	OILVENT20	OILVENT20	TBD	NA	NA	0.08	NA	NA	NA	0.08
76	OILVENT21	OILVENT21	TBD	NA	NA	0.08	NA	NA	NA	0.08
77	OILVENT22	OILVENT22	TBD	NA	NA	0.08	NA	NA	NA	0.08
78	OILVENT23	OILVENT23	TBD	NA	NA	0.08	NA	NA	NA	0.08
79	OILVENT24	OILVENT24	TBD	NA	NA	0.08	NA	NA	NA	0.08
80	OILVENT25	OILVENT25	TBD	NA	NA	0.08	NA	NA	NA	0.08
81	OILVENT26	OILVENT26	TBD	NA	NA	0.08	NA	NA	NA	0.08

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**VOC**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
	Affected or Modified Facilities [2]		**Permit No.**	**Actual Emissions [3]**	**Baseline Emissions [4]**	**Proposed Emissions [5]**	**Projected Actual Emissions**	**Difference (B-A) [6]**	**Correction [7] (Could Have Accomodated)**	**Project Increase [8]**
	FIN	**EPN [2]**								
82	OILVENT27	OILVENT27	TBD	NA	NA	0.08	NA	NA	NA	0.08
83	OILVENT28	OILVENT28	TBD	NA	NA	0.08	NA	NA	NA	0.08
84	OILVENT29	OILVENT29	TBD	NA	NA	0.08	NA	NA	NA	0.08
85	OILVENT30	OILVENT30	TBD	NA	NA	0.08	NA	NA	NA	0.08
86	OILVENT31	OILVENT31	TBD	NA	NA	0.08	NA	NA	NA	0.08
87	OILVENT32	OILVENT32	TBD	NA	NA	0.08	NA	NA	NA	0.08
88	OILVENT33	OILVENT33	TBD	NA	NA	0.08	NA	NA	NA	0.08
89	OILVENT34	OILVENT34	TBD	NA	NA	0.08	NA	NA	NA	0.08
90	OILVENT35	OILVENT35	TBD	NA	NA	0.08	NA	NA	NA	0.08
91	TNK-DSL1	TNK-DSL1	TBD	NA	NA	0.01	NA	NA	NA	0.01
92	TNK-DSL2	TNK-DSL2	TBD	NA	NA	0.01	NA	NA	NA	0.01
93	TNK-DSL3	TNK-DSL3	TBD	NA	NA	0.01	NA	NA	NA	0.01
94	TNK-DSL4	TNK-DSL4	TBD	NA	NA	0.01	NA	NA	NA	0.01
95	TNK-DSL5	TNK-DSL5	TBD	NA	NA	0.00	NA	NA	NA	0.003
96	TNK-DSL6	TNK-DSL6	TBD	NA	NA	0.00	NA	NA	NA	0.003
97	TNK-DSL7	TNK-DSL7	TBD	NA	NA	0.00	NA	NA	NA	0.003
98	FPUMP1	FPUMP1	TBD	NA	NA	0.00	NA	NA	NA	0.002
99	FPUMP2	FPUMP2	TBD	NA	NA	0.00	NA	NA	NA	0.002
100	EGEN1	EGEN1	TBD	NA	NA	0.13	NA	NA	NA	0.13
101	EGEN2	EGEN2	TBD	NA	NA	0.13	NA	NA	NA	0.13
102	EGEN3	EGEN3	TBD	NA	NA	0.13	NA	NA	NA	0.13

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**VOC**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
Affected or Modified Facilities [2]			**Permit No.**	**Actual Emissions [3]**	**Baseline Emissions [4]**	**Proposed Emissions [5]**	**Projected Actual Emissions**	**Difference (B-A) [6]**	**Correction [7] (Could Have Accomodated)**	**Project Increase [8]**
	FIN	**EPN [2]**								
103	EGEN4	EGEN4	TBD	NA	NA	0.13	NA	NA	NA	0.13
104	EGEN5	EGEN5	TBD	NA	NA	0.13	NA	NA	NA	0.13
105	EGEN6	EGEN6	TBD	NA	NA	0.13	NA	NA	NA	0.13
106	EGEN7	EGEN7	TBD	NA	NA	0.13	NA	NA	NA	0.13
107	EGEN8	EGEN8	TBD	NA	NA	0.13	NA	NA	NA	0.13
108	EGEN9	EGEN9	TBD	NA	NA	0.13	NA	NA	NA	0.13
109	EGEN10	EGEN10	TBD	NA	NA	0.13	NA	NA	NA	0.13
110	EGEN11	EGEN11	TBD	NA	NA	0.13	NA	NA	NA	0.13
111	EGEN12	EGEN12	TBD	NA	NA	0.13	NA	NA	NA	0.13
112	EGEN13	EGEN13	TBD	NA	NA	0.13	NA	NA	NA	0.13
113	EGEN14	EGEN14	TBD	NA	NA	0.13	NA	NA	NA	0.13
114	EGEN15	EGEN15	TBD	NA	NA	0.13	NA	NA	NA	0.13
115	ENGINE-1	ENGINE-1	TBD	NA	NA	19.47	NA	NA	NA	19.47

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**VOC**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
Affected or Modified Facilities [2]			**Permit No.**	**Actual Emissions [3]**	**Baseline Emissions [4]**	**Proposed Emissions [5]**	**Projected Actual Emissions**	**Difference (B-A) [6]**	**Correction [7] (Could Have Accomodated)**	**Project Increase [8]**
	FIN	**EPN [2]**								
116	ENGINE-2	ENGINE-2	TBD	NA	NA	19.47	NA	NA	NA	19.47
117	MSSFUG	MSSFUG	TBD	NA	NA	0.55	NA	NA	NA	0.55
Summary of Contemporaneous Changes								**Total**	**0.00**	**837.99**

Explanation (Table 2F Supplement):

[1] Individual Table 2F's should be used to summarize the project emission increase for each criteria pollutant.

[2] Emission Point Number as designated in NSR Permit or Emissions Inventory.

[3] All records and calculations for these values must be available upon request.

[4] Correct actual emissions for currently applicable rule or permit requirements, and periods of non-compliance. These corrections, as well as any MSS previously demonstrated under 30 TAC 101, should be explained in the Table 2F supplement.

[5] If projected actual emission is used it must be noted in the next column and the basis for the projection identified in the Table 2F supplement.

[6] Proposed Emissions (column B) minus Baseline Emissions (column A).

[7] Correction made to emission increase for what portion could have been accommodated during the baseline period. The justification and basis for this estimate must be provided in the Table 2F supplement.

[8] Obtained by subtracting the correction from the difference. Must be a positive number.

[9] Sum all values for this page.

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**NOx**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

						A	B			
	Affected or Modified Facilities [2]		Permit No.	Actual Emissions [3]	Baseline Emissions [4]	Proposed Emissions [5]	Projected Actual Emissions	Difference (B-A) [6]	Correction [7] (Could Have Accomodated)	Project Increase [8]
	FIN	EPN [2]								
1	CT-1A	CT-1A	TBD	NA	NA	21.99	NA	NA	NA	21.99
2	CT-2A	CT-2A	TBD	NA	NA	21.99	NA	NA	NA	21.99
3	CT-3A	CT-3A	TBD	NA	NA	21.99	NA	NA	NA	21.99
4	CT-4A	CT-4A	TBD	NA	NA	21.99	NA	NA	NA	21.99
5	CT-5A	CT-5A	TBD	NA	NA	21.99	NA	NA	NA	21.99
6	CT-6A	CT-6A	TBD	NA	NA	21.99	NA	NA	NA	21.99
7	CT-7A	CT-7A	TBD	NA	NA	21.99	NA	NA	NA	21.99
8	CT-8A	CT-8A	TBD	NA	NA	21.99	NA	NA	NA	21.99
9	CT-9A	CT-9A	TBD	NA	NA	21.99	NA	NA	NA	21.99
10	CT-10A	CT-10A	TBD	NA	NA	21.99	NA	NA	NA	21.99
11	CT-11A	CT-11A	TBD	NA	NA	21.99	NA	NA	NA	21.99
12	CT-12A	CT-12A	TBD	NA	NA	21.99	NA	NA	NA	21.99
13	CT-13A	CT-13A	TBD	NA	NA	21.99	NA	NA	NA	21.99
14	CT-14A	CT-14A	TBD	NA	NA	21.99	NA	NA	NA	21.99
15	CT-15A	CT-15A	TBD	NA	NA	21.99	NA	NA	NA	21.99
16	CT-16A	CT-16A	TBD	NA	NA	21.99	NA	NA	NA	21.99
17	CT-17A	CT-17A	TBD	NA	NA	21.99	NA	NA	NA	21.99
18	CT-18A	CT-18A	TBD	NA	NA	21.99	NA	NA	NA	21.99
19	CT-19A	CT-19A	TBD	NA	NA	21.99	NA	NA	NA	21.99
20	CT-20A	CT-20A	TBD	NA	NA	21.99	NA	NA	NA	21.99
21	CT-21A	CT-21A	TBD	NA	NA	21.99	NA	NA	NA	21.99

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**NOx**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
	Affected or Modified Facilities [2]		**Permit No.**	**Actual Emissions [3]**	**Baseline Emissions [4]**	**Proposed Emissions [5]**	**Projected Actual Emissions**	**Difference (B-A) [6]**	**Correction [7] (Could Have Accomodated)**	**Project Increase [8]**
	FIN	**EPN [2]**								
22	CT-1B	CT-1B	TBD	NA	NA	163.22	NA	NA	NA	163.22
23	CT-2B	CT-2B	TBD	NA	NA	163.22	NA	NA	NA	163.22
24	CT-3B	CT-3B	TBD	NA	NA	163.22	NA	NA	NA	163.22
25	CT-4B	CT-4B	TBD	NA	NA	163.22	NA	NA	NA	163.22
26	CT-5B	CT-5B	TBD	NA	NA	163.22	NA	NA	NA	163.22
27	CT-6B	CT-6B	TBD	NA	NA	163.22	NA	NA	NA	163.22
28	CT-7B	CT-7B	TBD	NA	NA	163.22	NA	NA	NA	163.22
29	CT-8B	CT-8B	TBD	NA	NA	163.22	NA	NA	NA	163.22
30	CT-9B	CT-9B	TBD	NA	NA	163.22	NA	NA	NA	163.22
31	CT-10B	CT-10B	TBD	NA	NA	163.22	NA	NA	NA	163.22
32	CT-11B	CT-11B	TBD	NA	NA	163.22	NA	NA	NA	163.22
33	CT-12B	CT-12B	TBD	NA	NA	163.22	NA	NA	NA	163.22
34	CT-13B	CT-13B	TBD	NA	NA	163.22	NA	NA	NA	163.22
35	CT-14B	CT-14B	TBD	NA	NA	163.22	NA	NA	NA	163.22
36	DPHEAT1	DPHEAT1	TBD	NA	NA	0.42	NA	NA	NA	0.42
37	DPHEAT2	DPHEAT2	TBD	NA	NA	0.42	NA	NA	NA	0.42
38	DPHEAT3	DPHEAT3	TBD	NA	NA	0.42	NA	NA	NA	0.42
39	DPHEAT4	DPHEAT4	TBD	NA	NA	0.42	NA	NA	NA	0.42
40	DPHEAT5	DPHEAT5	TBD	NA	NA	0.42	NA	NA	NA	0.42
41	DPHEAT6	DPHEAT6	TBD	NA	NA	0.53	NA	NA	NA	0.53
42	DPHEAT7	DPHEAT7	TBD	NA	NA	0.53	NA	NA	NA	0.53

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**NOx**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
	Affected or Modified Facilities [2]		**Permit No.**	**Actual Emissions [3]**	**Baseline Emissions [4]**	**Proposed Emissions [5]**	**Projected Actual Emissions**	**Difference (B-A) [6]**	**Correction [7] (Could Have Accomodated)**	**Project Increase [8]**
	FIN	**EPN [2]**								
43	DPHEAT8	DPHEAT8	TBD	NA	NA	0.53	NA	NA	NA	0.53
44	DPHEAT9	DPHEAT9	TBD	NA	NA	0.53	NA	NA	NA	0.53
45	DPHEAT10	DPHEAT10	TBD	NA	NA	0.53	NA	NA	NA	0.53
46	DPHEAT11	DPHEAT11	TBD	NA	NA	0.53	NA	NA	NA	0.53
47	DPHEAT12	DPHEAT12	TBD	NA	NA	0.53	NA	NA	NA	0.53
48	DPHEAT13	DPHEAT13	TBD	NA	NA	0.53	NA	NA	NA	0.53
49	DPHEAT14	DPHEAT14	TBD	NA	NA	0.53	NA	NA	NA	0.53
50	DPHEAT15	DPHEAT15	TBD	NA	NA	0.53	NA	NA	NA	0.53
51	DPHEAT16	DPHEAT16	TBD	NA	NA	0.53	NA	NA	NA	0.53
52	DPHEAT17	DPHEAT17	TBD	NA	NA	0.53	NA	NA	NA	0.53
53	DPHEAT18	DPHEAT18	TBD	NA	NA	0.53	NA	NA	NA	0.53
54	DPHEAT19	DPHEAT19	TBD	NA	NA	0.53	NA	NA	NA	0.53
55	FPUMP1	FPUMP1	TBD	NA	NA	0.09	NA	NA	NA	0.09
56	FPUMP2	FPUMP2	TBD	NA	NA	0.09	NA	NA	NA	0.09
57	EGEN1	EGEN1	TBD	NA	NA	2.31	NA	NA	NA	2.31
58	EGEN2	EGEN2	TBD	NA	NA	2.31	NA	NA	NA	2.31
59	EGEN3	EGEN3	TBD	NA	NA	2.31	NA	NA	NA	2.31
60	EGEN4	EGEN4	TBD	NA	NA	2.31	NA	NA	NA	2.31
61	EGEN5	EGEN5	TBD	NA	NA	2.31	NA	NA	NA	2.31
62	EGEN6	EGEN6	TBD	NA	NA	2.31	NA	NA	NA	2.31
63	EGEN7	EGEN7	TBD	NA	NA	2.31	NA	NA	NA	2.31

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**NOx**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
Affected or Modified Facilities [2]			**Permit No.**	**Actual Emissions [3]**	**Baseline Emissions [4]**	**Proposed Emissions [5]**	**Projected Actual Emissions**	**Difference (B-A) [6]**	**Correction [7] (Could Have Accomodated)**	**Project Increase [8]**
	FIN	**EPN [2]**								
64	EGEN8	EGEN8	TBD	NA	NA	2.31	NA	NA	NA	2.31
65	EGEN9	EGEN9	TBD	NA	NA	2.31	NA	NA	NA	2.31
66	EGEN10	EGEN10	TBD	NA	NA	2.31	NA	NA	NA	2.31
67	EGEN11	EGEN11	TBD	NA	NA	2.31	NA	NA	NA	2.31
68	EGEN12	EGEN12	TBD	NA	NA	2.31	NA	NA	NA	2.31
69	EGEN13	EGEN13	TBD	NA	NA	2.31	NA	NA	NA	2.31
70	EGEN14	EGEN14	TBD	NA	NA	2.31	NA	NA	NA	2.31
71	EGEN15	EGEN15	TBD	NA	NA	2.31	NA	NA	NA	2.31
72	ENGINE-1	ENGINE-1	TBD	NA	NA	19.47	NA	NA	NA	19.47
73	ENGINE-2	ENGINE-2	TBD	NA	NA	19.47	NA	NA	NA	19.47
74	MSSFUG	MSSFUG	TBD	NA	NA	0.00	NA	NA	NA	0.00
Summary of Contemporaneous Changes								**Total**	**0.00**	**2,830.28**

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**NOx**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
Affected or Modified Facilities [2]			**Permit No.**	**Actual Emissions [3]**	**Baseline Emissions [4]**	**Proposed Emissions [5]**	**Projected Actual Emissions**	**Difference (B-A) [6]**	**Correction [7] (Could Have Accomodated)**	**Project Increase [8]**
	FIN	**EPN [2]**								
Explanation (Table 2F Supplement):										

[1] Individual Table 2F's should be used to summarize the project emission increase for each criteria pollutant.

[2] Emission Point Number as designated in NSR Permit or Emissions Inventory.

[3] All records and calculations for these values must be available upon request.

[4] Correct actual emissions for currently applicable rule or permit requirements, and periods of non-compliance. These corrections, as well as any MSS previously demonstrated under 30 TAC 101, should be explained in the Table 2F supplement.

[5] If projected actual emission is used it must be noted in the next column and the basis for the projection identified in the Table 2F supplement.

[6] Proposed Emissions (column B) minus Baseline Emissions (column A).

[7] Correction made to emission increase for what portion could have been accommodated during the baseline period. The justification and basis for this estimate must be provided in the Table 2F supplement.

[8] Obtained by subtracting the correction from the difference. Must be a positive number.

[9] Sum all values for this page.

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**CO**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
	Affected or Modified Facilities [2]		**Permit No.**	**Actual Emissions [3]**	**Baseline Emissions [4]**	**Proposed Emissions [5]**	**Projected Actual Emissions**	**Difference (B-A) [6]**	**Correction [7] (Could Have Accomodated)**	**Project Increase [8]**
	FIN	**EPN [2]**								
1	CT-1A	CT-1A	TBD	NA	NA	31.18	NA	NA	NA	31.18
2	CT-2A	CT-2A	TBD	NA	NA	31.18	NA	NA	NA	31.18
3	CT-3A	CT-3A	TBD	NA	NA	31.18	NA	NA	NA	31.18
4	CT-4A	CT-4A	TBD	NA	NA	31.18	NA	NA	NA	31.18
5	CT-5A	CT-5A	TBD	NA	NA	31.18	NA	NA	NA	31.18
6	CT-6A	CT-6A	TBD	NA	NA	31.18	NA	NA	NA	31.18
7	CT-7A	CT-7A	TBD	NA	NA	31.18	NA	NA	NA	31.18
8	CT-8A	CT-8A	TBD	NA	NA	31.18	NA	NA	NA	31.18
9	CT-9A	CT-9A	TBD	NA	NA	31.18	NA	NA	NA	31.18
10	CT-10A	CT-10A	TBD	NA	NA	31.18	NA	NA	NA	31.18
11	CT-11A	CT-11A	TBD	NA	NA	31.18	NA	NA	NA	31.18
12	CT-12A	CT-12A	TBD	NA	NA	31.18	NA	NA	NA	31.18
13	CT-13A	CT-13A	TBD	NA	NA	31.18	NA	NA	NA	31.18
14	CT-14A	CT-14A	TBD	NA	NA	31.18	NA	NA	NA	31.18
15	CT-15A	CT-15A	TBD	NA	NA	31.18	NA	NA	NA	31.18
16	CT-16A	CT-16A	TBD	NA	NA	31.18	NA	NA	NA	31.18
17	CT-17A	CT-17A	TBD	NA	NA	31.18	NA	NA	NA	31.18
18	CT-18A	CT-18A	TBD	NA	NA	31.18	NA	NA	NA	31.18
19	CT-19A	CT-19A	TBD	NA	NA	31.18	NA	NA	NA	31.18
20	CT-20A	CT-20A	TBD	NA	NA	31.18	NA	NA	NA	31.18

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**CO**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
	Affected or Modified Facilities [2]		**Permit No.**	**Actual Emissions [3]**	**Baseline Emissions [4]**	**Proposed Emissions [5]**	**Projected Actual Emissions**	**Difference (B-A) [6]**	**Correction [7] (Could Have Accomodated)**	**Project Increase [8]**
	FIN	**EPN [2]**								
21	CT-21A	CT-21A	TBD	NA	NA	31.18	NA	NA	NA	31.18
22	CT-1B	CT-1B	TBD	NA	NA	368.06	NA	NA	NA	368.06
23	CT-2B	CT-2B	TBD	NA	NA	368.06	NA	NA	NA	368.06
24	CT-3B	CT-3B	TBD	NA	NA	368.06	NA	NA	NA	368.06
25	CT-4B	CT-4B	TBD	NA	NA	368.06	NA	NA	NA	368.06
26	CT-5B	CT-5B	TBD	NA	NA	368.06	NA	NA	NA	368.06
27	CT-6B	CT-6B	TBD	NA	NA	368.06	NA	NA	NA	368.06
28	CT-7B	CT-7B	TBD	NA	NA	368.06	NA	NA	NA	368.06
29	CT-8B	CT-8B	TBD	NA	NA	368.06	NA	NA	NA	368.06
30	CT-9B	CT-9B	TBD	NA	NA	368.06	NA	NA	NA	368.06
31	CT-10B	CT-10B	TBD	NA	NA	368.06	NA	NA	NA	368.06
32	CT-11B	CT-11B	TBD	NA	NA	368.06	NA	NA	NA	368.06
33	CT-12B	CT-12B	TBD	NA	NA	368.06	NA	NA	NA	368.06
34	CT-13B	CT-13B	TBD	NA	NA	368.06	NA	NA	NA	368.06
35	CT-14B	CT-14B	TBD	NA	NA	368.06	NA	NA	NA	368.06
36	DPHEAT1	DPHEAT1	TBD	NA	NA	1.42	NA	NA	NA	1.42
37	DPHEAT2	DPHEAT2	TBD	NA	NA	1.42	NA	NA	NA	1.42
38	DPHEAT3	DPHEAT3	TBD	NA	NA	1.42	NA	NA	NA	1.42
39	DPHEAT4	DPHEAT4	TBD	NA	NA	1.42	NA	NA	NA	1.42
40	DPHEAT5	DPHEAT5	TBD	NA	NA	1.42	NA	NA	NA	1.42

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**CO**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
	Affected or Modified Facilities [2]		Permit No.	Actual Emissions [3]	Baseline Emissions [4]	Proposed Emissions [5]	Projected Actual Emissions	Difference (B-A) [6]	Correction [7] (Could Have Accomodated)	Project Increase [8]
	FIN	EPN [2]								
41	DPHEAT6	DPHEAT6	TBD	NA	NA	1.80	NA	NA	NA	1.80
42	DPHEAT7	DPHEAT7	TBD	NA	NA	1.80	NA	NA	NA	1.80
43	DPHEAT8	DPHEAT8	TBD	NA	NA	1.80	NA	NA	NA	1.80
44	DPHEAT9	DPHEAT9	TBD	NA	NA	1.80	NA	NA	NA	1.80
45	DPHEAT10	DPHEAT10	TBD	NA	NA	1.80	NA	NA	NA	1.80
46	DPHEAT11	DPHEAT11	TBD	NA	NA	1.80	NA	NA	NA	1.80
47	DPHEAT12	DPHEAT12	TBD	NA	NA	1.80	NA	NA	NA	1.80
48	DPHEAT13	DPHEAT13	TBD	NA	NA	1.80	NA	NA	NA	1.80
49	DPHEAT14	DPHEAT14	TBD	NA	NA	1.80	NA	NA	NA	1.80
50	DPHEAT15	DPHEAT15	TBD	NA	NA	1.80	NA	NA	NA	1.80
51	DPHEAT16	DPHEAT16	TBD	NA	NA	1.80	NA	NA	NA	1.80
52	DPHEAT17	DPHEAT17	TBD	NA	NA	1.80	NA	NA	NA	1.80
53	DPHEAT18	DPHEAT18	TBD	NA	NA	1.80	NA	NA	NA	1.80
54	DPHEAT19	DPHEAT19	TBD	NA	NA	1.80	NA	NA	NA	1.80
55	FPUMP1	FPUMP1	TBD	NA	NA	0.01	NA	NA	NA	0.01
56	FPUMP2	FPUMP2	TBD	NA	NA	0.01	NA	NA	NA	0.01
57	EGEN1	EGEN1	TBD	NA	NA	0.26	NA	NA	NA	0.26
58	EGEN2	EGEN2	TBD	NA	NA	0.26	NA	NA	NA	0.26
59	EGEN3	EGEN3	TBD	NA	NA	0.26	NA	NA	NA	0.26
60	EGEN4	EGEN4	TBD	NA	NA	0.26	NA	NA	NA	0.26

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**CO**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
Affected or Modified Facilities [2]			**Permit No.**	**Actual Emissions [3]**	**Baseline Emissions [4]**	**Proposed Emissions [5]**	**Projected Actual Emissions**	**Difference (B-A) [6]**	**Correction [7] (Could Have Accomodated)**	**Project Increase [8]**
	FIN	**EPN [2]**								
61	EGEN5	EGEN5	TBD	NA	NA	0.26	NA	NA	NA	0.26
62	EGEN6	EGEN6	TBD	NA	NA	0.26	NA	NA	NA	0.26
63	EGEN7	EGEN7	TBD	NA	NA	0.26	NA	NA	NA	0.26
64	EGEN8	EGEN8	TBD	NA	NA	0.26	NA	NA	NA	0.26
65	EGEN9	EGEN9	TBD	NA	NA	0.26	NA	NA	NA	0.26
66	EGEN10	EGEN10	TBD	NA	NA	0.26	NA	NA	NA	0.26
67	EGEN11	EGEN11	TBD	NA	NA	0.26	NA	NA	NA	0.26
68	EGEN12	EGEN12	TBD	NA	NA	0.26	NA	NA	NA	0.26
69	EGEN13	EGEN13	TBD	NA	NA	0.26	NA	NA	NA	0.26
70	EGEN14	EGEN14	TBD	NA	NA	0.26	NA	NA	NA	0.26
71	EGEN15	EGEN15	TBD	NA	NA	0.26	NA	NA	NA	0.26
72	ENGINE-1	ENGINE-1	TBD	NA	NA	55.64	NA	NA	NA	55.64
73	ENGINE-2	ENGINE-2	TBD	NA	NA	55.64	NA	NA	NA	55.64
74	MSSFUG	MSSFUG	TBD	NA	NA	0.00	NA	NA	NA	0.00
Summary of Contemporaneous Changes								**Total**	**0.00**	**5,955.12**

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**CO**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
Affected or Modified Facilities [2]			**Permit No.**	**Actual Emissions [3]**	**Baseline Emissions [4]**	**Proposed Emissions [5]**	**Projected Actual Emissions**	**Difference (B-A) [6]**	**Correction [7] (Could Have Accomodated)**	**Project Increase [8]**
	FIN	**EPN [2]**								
Explanation (Table 2F Supplement):										

[1] Individual Table 2F's should be used to summarize the project emission increase for each criteria pollutant.

[2] Emission Point Number as designated in NSR Permit or Emissions Inventory.

[3] All records and calculations for these values must be available upon request.

[4] Correct actual emissions for currently applicable rule or permit requirements, and periods of non-compliance. These corrections, as well as any MSS previously demonstrated under 30 TAC 101, should be explained in the Table 2F supplement.

[5] If projected actual emission is used it must be noted in the next column and the basis for the projection identified in the Table 2F supplement.

[6] Proposed Emissions (column B) minus Baseline Emissions (column A).

[7] Correction made to emission increase for what portion could have been accommodated during the baseline period. The justification and basis for this estimate must be provided in the Table 2F supplement.

[8] Obtained by subtracting the correction from the difference. Must be a positive number.

[9] Sum all values for this page.

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**PM**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
	Affected or Modified Facilities [2]		**Permit No.**	**Actual Emissions [3]**	**Baseline Emissions [4]**	**Proposed Emissions [5]**	**Projected Actual Emissions**	**Difference (B-A) [6]**	**Correction [7] (Could Have Accomodated)**	**Project Increase [8]**
	FIN	**EPN [2]**								
1	CO-1	CO-1	TBD	NA	NA	0.52	NA	NA	NA	0.52
2	CO-2	CO-2	TBD	NA	NA	0.52	NA	NA	NA	0.52
3	CO-3	CO-3	TBD	NA	NA	0.52	NA	NA	NA	0.52
4	CO-4	CO-4	TBD	NA	NA	0.52	NA	NA	NA	0.52
5	CO-5	CO-5	TBD	NA	NA	0.52	NA	NA	NA	0.52
6	CO-6	CO-6	TBD	NA	NA	0.36	NA	NA	NA	0.36
7	CO-7	CO-7	TBD	NA	NA	0.36	NA	NA	NA	0.36
8	CO-8	CO-8	TBD	NA	NA	0.36	NA	NA	NA	0.36
9	CO-9	CO-9	TBD	NA	NA	0.36	NA	NA	NA	0.36
10	CO-10	CO-10	TBD	NA	NA	0.36	NA	NA	NA	0.36
11	CO-11	CO-11	TBD	NA	NA	0.36	NA	NA	NA	0.36
12	CO-12	CO-12	TBD	NA	NA	0.36	NA	NA	NA	0.36
13	CO-13	CO-13	TBD	NA	NA	0.36	NA	NA	NA	0.36
14	CO-14	CO-14	TBD	NA	NA	0.36	NA	NA	NA	0.36
15	CO-15	CO-15	TBD	NA	NA	0.36	NA	NA	NA	0.36
16	CO-16	CO-16	TBD	NA	NA	0.36	NA	NA	NA	0.36
17	CO-17	CO-17	TBD	NA	NA	0.36	NA	NA	NA	0.36
18	CO-18	CO-18	TBD	NA	NA	0.36	NA	NA	NA	0.36
19	CO-19	CO-19	TBD	NA	NA	0.36	NA	NA	NA	0.36
20	CT-1A	CT-1A	TBD	NA	NA	14.25	NA	NA	NA	14.25

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**PM**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
	Affected or Modified Facilities [2]		Permit No.	Actual Emissions [3]	Baseline Emissions [4]	Proposed Emissions [5]	Projected Actual Emissions	Difference (B-A) [6]	Correction [7] (Could Have Accomodated)	Project Increase [8]
	FIN	EPN [2]								
21	CT-2A	CT-2A	TBD	NA	NA	14.25	NA	NA	NA	14.25
22	CT-3A	CT-3A	TBD	NA	NA	14.25	NA	NA	NA	14.25
23	CT-4A	CT-4A	TBD	NA	NA	14.25	NA	NA	NA	14.25
24	CT-5A	CT-5A	TBD	NA	NA	14.25	NA	NA	NA	14.25
25	CT-6A	CT-6A	TBD	NA	NA	14.25	NA	NA	NA	14.25
26	CT-7A	CT-7A	TBD	NA	NA	14.25	NA	NA	NA	14.25
27	CT-8A	CT-8A	TBD	NA	NA	14.25	NA	NA	NA	14.25
28	CT-9A	CT-9A	TBD	NA	NA	14.25	NA	NA	NA	14.25
29	CT-10A	CT-10A	TBD	NA	NA	14.25	NA	NA	NA	14.25
30	CT-11A	CT-11A	TBD	NA	NA	14.25	NA	NA	NA	14.25
31	CT-12A	CT-12A	TBD	NA	NA	14.25	NA	NA	NA	14.25
32	CT-13A	CT-13A	TBD	NA	NA	14.25	NA	NA	NA	14.25
33	CT-14A	CT-14A	TBD	NA	NA	14.25	NA	NA	NA	14.25
34	CT-15A	CT-15A	TBD	NA	NA	14.25	NA	NA	NA	14.25
35	CT-16A	CT-16A	TBD	NA	NA	14.25	NA	NA	NA	14.25
36	CT-17A	CT-17A	TBD	NA	NA	14.25	NA	NA	NA	14.25
37	CT-18A	CT-18A	TBD	NA	NA	14.25	NA	NA	NA	14.25
38	CT-19A	CT-19A	TBD	NA	NA	14.25	NA	NA	NA	14.25
39	CT-20A	CT-20A	TBD	NA	NA	14.25	NA	NA	NA	14.25
40	CT-21A	CT-21A	TBD	NA	NA	14.25	NA	NA	NA	14.25

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**PM**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
	Affected or Modified Facilities [2]		Permit No.	Actual Emissions [3]	Baseline Emissions [4]	Proposed Emissions [5]	Projected Actual Emissions	Difference (B-A) [6]	Correction [7] (Could Have Accomodated)	Project Increase [8]
	FIN	EPN [2]								
41	CT-1B	CT-1B	TBD	NA	NA	48.63	NA	NA	NA	48.63
42	CT-2B	CT-2B	TBD	NA	NA	48.63	NA	NA	NA	48.63
43	CT-3B	CT-3B	TBD	NA	NA	48.63	NA	NA	NA	48.63
44	CT-4B	CT-4B	TBD	NA	NA	48.63	NA	NA	NA	48.63
45	CT-5B	CT-5B	TBD	NA	NA	48.63	NA	NA	NA	48.63
46	CT-6B	CT-6B	TBD	NA	NA	48.63	NA	NA	NA	48.63
47	CT-7B	CT-7B	TBD	NA	NA	48.63	NA	NA	NA	48.63
48	CT-8B	CT-8B	TBD	NA	NA	48.63	NA	NA	NA	48.63
49	CT-9B	CT-9B	TBD	NA	NA	48.63	NA	NA	NA	48.63
50	CT-10B	CT-10B	TBD	NA	NA	48.63	NA	NA	NA	48.63
51	CT-11B	CT-11B	TBD	NA	NA	48.63	NA	NA	NA	48.63
52	CT-12B	CT-12B	TBD	NA	NA	48.63	NA	NA	NA	48.63
53	CT-13B	CT-13B	TBD	NA	NA	48.63	NA	NA	NA	48.63
54	CT-14B	CT-14B	TBD	NA	NA	48.63	NA	NA	NA	48.63
55	DPHEAT1	DPHEAT1	TBD	NA	NA	0.29	NA	NA	NA	0.29
56	DPHEAT2	DPHEAT2	TBD	NA	NA	0.29	NA	NA	NA	0.29
57	DPHEAT3	DPHEAT3	TBD	NA	NA	0.29	NA	NA	NA	0.29
58	DPHEAT4	DPHEAT4	TBD	NA	NA	0.29	NA	NA	NA	0.29
59	DPHEAT5	DPHEAT5	TBD	NA	NA	0.29	NA	NA	NA	0.29
60	DPHEAT6	DPHEAT6	TBD	NA	NA	0.36	NA	NA	NA	0.36

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**PM**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
	Affected or Modified Facilities [2]		Permit No.	Actual Emissions [3]	Baseline Emissions [4]	Proposed Emissions [5]	Projected Actual Emissions	Difference (B-A) [6]	Correction [7] (Could Have Accomodated)	Project Increase [8]
	FIN	EPN [2]								
61	DPHEAT7	DPHEAT7	TBD	NA	NA	0.36	NA	NA	NA	0.36
62	DPHEAT8	DPHEAT8	TBD	NA	NA	0.36	NA	NA	NA	0.36
63	DPHEAT9	DPHEAT9	TBD	NA	NA	0.36	NA	NA	NA	0.36
64	DPHEAT10	DPHEAT10	TBD	NA	NA	0.36	NA	NA	NA	0.36
65	DPHEAT11	DPHEAT11	TBD	NA	NA	0.36	NA	NA	NA	0.36
66	DPHEAT12	DPHEAT12	TBD	NA	NA	0.36	NA	NA	NA	0.36
67	DPHEAT13	DPHEAT13	TBD	NA	NA	0.36	NA	NA	NA	0.36
68	DPHEAT14	DPHEAT14	TBD	NA	NA	0.36	NA	NA	NA	0.36
69	DPHEAT15	DPHEAT15	TBD	NA	NA	0.36	NA	NA	NA	0.36
70	DPHEAT16	DPHEAT16	TBD	NA	NA	0.36	NA	NA	NA	0.36
71	DPHEAT17	DPHEAT17	TBD	NA	NA	0.36	NA	NA	NA	0.36
72	DPHEAT18	DPHEAT18	TBD	NA	NA	0.36	NA	NA	NA	0.36
73	DPHEAT19	DPHEAT19	TBD	NA	NA	0.36	NA	NA	NA	0.36
74	OILVENT1	OILVENT1	TBD	NA	NA	0.08	NA	NA	NA	0.08
75	OILVENT2	OILVENT2	TBD	NA	NA	0.08	NA	NA	NA	0.08
76	OILVENT3	OILVENT3	TBD	NA	NA	0.08	NA	NA	NA	0.08
77	OILVENT4	OILVENT4	TBD	NA	NA	0.08	NA	NA	NA	0.08
78	OILVENT5	OILVENT5	TBD	NA	NA	0.08	NA	NA	NA	0.08
79	OILVENT6	OILVENT6	TBD	NA	NA	0.08	NA	NA	NA	0.08
80	OILVENT7	OILVENT7	TBD	NA	NA	0.08	NA	NA	NA	0.08

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**PM**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
	Affected or Modified Facilities [2]		Permit No.	Actual Emissions [3]	Baseline Emissions [4]	Proposed Emissions [5]	Projected Actual Emissions	Difference (B-A) [6]	Correction [7] (Could Have Accomodated)	Project Increase [8]
	FIN	EPN [2]								
81	OILVENT8	OILVENT8	TBD	NA	NA	0.08	NA	NA	NA	0.08
82	OILVENT9	OILVENT9	TBD	NA	NA	0.08	NA	NA	NA	0.08
83	OILVENT10	OILVENT10	TBD	NA	NA	0.08	NA	NA	NA	0.08
84	OILVENT11	OILVENT11	TBD	NA	NA	0.08	NA	NA	NA	0.08
85	OILVENT12	OILVENT12	TBD	NA	NA	0.08	NA	NA	NA	0.08
86	OILVENT13	OILVENT13	TBD	NA	NA	0.08	NA	NA	NA	0.08
87	OILVENT14	OILVENT14	TBD	NA	NA	0.08	NA	NA	NA	0.08
88	OILVENT15	OILVENT15	TBD	NA	NA	0.08	NA	NA	NA	0.08
89	OILVENT16	OILVENT16	TBD	NA	NA	0.08	NA	NA	NA	0.08
90	OILVENT17	OILVENT17	TBD	NA	NA	0.08	NA	NA	NA	0.08
91	OILVENT18	OILVENT18	TBD	NA	NA	0.08	NA	NA	NA	0.08
92	OILVENT19	OILVENT19	TBD	NA	NA	0.08	NA	NA	NA	0.08
93	OILVENT20	OILVENT20	TBD	NA	NA	0.08	NA	NA	NA	0.08
94	OILVENT21	OILVENT21	TBD	NA	NA	0.08	NA	NA	NA	0.08
95	OILVENT22	OILVENT22	TBD	NA	NA	0.08	NA	NA	NA	0.08
96	OILVENT23	OILVENT23	TBD	NA	NA	0.08	NA	NA	NA	0.08
97	OILVENT24	OILVENT24	TBD	NA	NA	0.08	NA	NA	NA	0.08
98	OILVENT25	OILVENT25	TBD	NA	NA	0.08	NA	NA	NA	0.08
99	OILVENT26	OILVENT26	TBD	NA	NA	0.08	NA	NA	NA	0.08
100	OILVENT27	OILVENT27	TBD	NA	NA	0.08	NA	NA	NA	0.08

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**PM**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
	Affected or Modified Facilities [2]		**Permit No.**	**Actual Emissions [3]**	**Baseline Emissions [4]**	**Proposed Emissions [5]**	**Projected Actual Emissions**	**Difference (B-A) [6]**	**Correction [7] (Could Have Accomodated)**	**Project Increase [8]**
	FIN	**EPN [2]**								
101	OILVENT28	OILVENT28	TBD	NA	NA	0.08	NA	NA	NA	0.08
102	OILVENT29	OILVENT29	TBD	NA	NA	0.08	NA	NA	NA	0.08
103	OILVENT30	OILVENT30	TBD	NA	NA	0.08	NA	NA	NA	0.08
104	OILVENT31	OILVENT31	TBD	NA	NA	0.08	NA	NA	NA	0.08
105	OILVENT32	OILVENT32	TBD	NA	NA	0.08	NA	NA	NA	0.08
106	OILVENT33	OILVENT33	TBD	NA	NA	0.08	NA	NA	NA	0.08
107	OILVENT34	OILVENT34	TBD	NA	NA	0.08	NA	NA	NA	0.08
108	OILVENT35	OILVENT35	TBD	NA	NA	0.08	NA	NA	NA	0.08
109	FPUMP1	FPUMP1	TBD	NA	NA	0.00	NA	NA	NA	0.00
110	FPUMP2	FPUMP2	TBD	NA	NA	0.00	NA	NA	NA	0.00
111	EGEN1	EGEN1	TBD	NA	NA	0.08	NA	NA	NA	0.08
112	EGEN2	EGEN2	TBD	NA	NA	0.08	NA	NA	NA	0.08
113	EGEN3	EGEN3	TBD	NA	NA	0.08	NA	NA	NA	0.08
114	EGEN4	EGEN4	TBD	NA	NA	0.08	NA	NA	NA	0.08
115	EGEN5	EGEN5	TBD	NA	NA	0.08	NA	NA	NA	0.08
116	EGEN6	EGEN6	TBD	NA	NA	0.08	NA	NA	NA	0.08
117	EGEN7	EGEN7	TBD	NA	NA	0.08	NA	NA	NA	0.08
118	EGEN8	EGEN8	TBD	NA	NA	0.08	NA	NA	NA	0.08
119	EGEN9	EGEN9	TBD	NA	NA	0.08	NA	NA	NA	0.08
120	EGEN10	EGEN10	TBD	NA	NA	0.08	NA	NA	NA	0.08

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**PM**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
Affected or Modified Facilities [2]			**Permit No.**	**Actual Emissions [3]**	**Baseline Emissions [4]**	**Proposed Emissions [5]**	**Projected Actual Emissions**	**Difference (B-A) [6]**	**Correction [7] (Could Have Accomodated)**	**Project Increase [8]**
	FIN	**EPN [2]**								
121	EGEN11	EGEN11	TBD	NA	NA	0.08	NA	NA	NA	0.08
122	EGEN12	EGEN12	TBD	NA	NA	0.08	NA	NA	NA	0.08
123	EGEN13	EGEN13	TBD	NA	NA	0.08	NA	NA	NA	0.08
124	EGEN14	EGEN14	TBD	NA	NA	0.08	NA	NA	NA	0.08
125	EGEN15	EGEN15	TBD	NA	NA	0.08	NA	NA	NA	0.08
126	ENGINE-1	ENGINE-1	TBD	NA	NA	0.32	NA	NA	NA	0.32
127	ENGINE-2	ENGINE-2	TBD	NA	NA	0.32	NA	NA	NA	0.32
128	MSSFUG	MSSFUG	TBD	NA	NA	0.00	NA	NA	NA	0.00
Summary of Contemporaneous Changes								**Total**	**0.00**	**998.82**

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**PM**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
Affected or Modified Facilities [2]			**Permit No.**	**Actual Emissions [3]**	**Baseline Emissions [4]**	**Proposed Emissions [5]**	**Projected Actual Emissions**	**Difference (B-A) [6]**	**Correction [7] (Could Have Accomodated)**	**Project Increase [8]**
	FIN	**EPN [2]**								
Explanation (Table 2F Supplement):										

[1] Individual Table 2F's should be used to summarize the project emission increase for each criteria pollutant.

[2] Emission Point Number as designated in NSR Permit or Emissions Inventory.

[3] All records and calculations for these values must be available upon request.

[4] Correct actual emissions for currently applicable rule or permit requirements, and periods of non-compliance. These corrections, as well as any MSS previously demonstrated under 30 TAC 101, should be explained in the Table 2F supplement.

[5] If projected actual emission is used it must be noted in the next column and the basis for the projection identified in the Table 2F supplement.

[6] Proposed Emissions (column B) minus Baseline Emissions (column A).

[7] Correction made to emission increase for what portion could have been accommodated during the baseline period. The justification and basis for this estimate must be provided in the Table 2F supplement.

[8] Obtained by subtracting the correction from the difference. Must be a positive number.

[9] Sum all values for this page.

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**PM10**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

						A	B			
	Affected or Modified Facilities [2]		Permit No.	Actual Emissions [3]	Baseline Emissions [4]	Proposed Emissions [5]	Projected Actual Emissions	Difference (B-A) [6]	Correction [7] (Could Have Accomodated)	Project Increase [8]
	FIN	EPN [2]								
1	CO-1	CO-1	TBD	NA	NA	0.26	NA	NA	NA	0.26
2	CO-2	CO-2	TBD	NA	NA	0.26	NA	NA	NA	0.26
3	CO-3	CO-3	TBD	NA	NA	0.26	NA	NA	NA	0.26
4	CO-4	CO-4	TBD	NA	NA	0.26	NA	NA	NA	0.26
5	CO-5	CO-5	TBD	NA	NA	0.26	NA	NA	NA	0.26
6	CO-6	CO-6	TBD	NA	NA	0.18	NA	NA	NA	0.18
7	CO-7	CO-7	TBD	NA	NA	0.18	NA	NA	NA	0.18
8	CO-8	CO-8	TBD	NA	NA	0.18	NA	NA	NA	0.18
9	CO-9	CO-9	TBD	NA	NA	0.18	NA	NA	NA	0.18
10	CO-10	CO-10	TBD	NA	NA	0.18	NA	NA	NA	0.18
11	CO-11	CO-11	TBD	NA	NA	0.18	NA	NA	NA	0.18
12	CO-12	CO-12	TBD	NA	NA	0.18	NA	NA	NA	0.18
13	CO-13	CO-13	TBD	NA	NA	0.18	NA	NA	NA	0.18
14	CO-14	CO-14	TBD	NA	NA	0.18	NA	NA	NA	0.18
15	CO-15	CO-15	TBD	NA	NA	0.18	NA	NA	NA	0.18
16	CO-16	CO-16	TBD	NA	NA	0.18	NA	NA	NA	0.18
17	CO-17	CO-17	TBD	NA	NA	0.18	NA	NA	NA	0.18
18	CO-18	CO-18	TBD	NA	NA	0.18	NA	NA	NA	0.18
19	CO-19	CO-19	TBD	NA	NA	0.18	NA	NA	NA	0.18
20	CT-1A	CT-1A	TBD	NA	NA	14.25	NA	NA	NA	14.25

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**PM10**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
	Affected or Modified Facilities [2]		**Permit No.**	**Actual Emissions [3]**	**Baseline Emissions [4]**	**Proposed Emissions [5]**	**Projected Actual Emissions**	**Difference (B-A) [6]**	**Correction [7] (Could Have Accomodated)**	**Project Increase [8]**
	FIN	**EPN [2]**								
21	CT-2A	CT-2A	TBD	NA	NA	14.25	NA	NA	NA	14.25
22	CT-3A	CT-3A	TBD	NA	NA	14.25	NA	NA	NA	14.25
23	CT-4A	CT-4A	TBD	NA	NA	14.25	NA	NA	NA	14.25
24	CT-5A	CT-5A	TBD	NA	NA	14.25	NA	NA	NA	14.25
25	CT-6A	CT-6A	TBD	NA	NA	14.25	NA	NA	NA	14.25
26	CT-7A	CT-7A	TBD	NA	NA	14.25	NA	NA	NA	14.25
27	CT-8A	CT-8A	TBD	NA	NA	14.25	NA	NA	NA	14.25
28	CT-9A	CT-9A	TBD	NA	NA	14.25	NA	NA	NA	14.25
29	CT-10A	CT-10A	TBD	NA	NA	14.25	NA	NA	NA	14.25
30	CT-11A	CT-11A	TBD	NA	NA	14.25	NA	NA	NA	14.25
31	CT-12A	CT-12A	TBD	NA	NA	14.25	NA	NA	NA	14.25
32	CT-13A	CT-13A	TBD	NA	NA	14.25	NA	NA	NA	14.25
33	CT-14A	CT-14A	TBD	NA	NA	14.25	NA	NA	NA	14.25
34	CT-15A	CT-15A	TBD	NA	NA	14.25	NA	NA	NA	14.25
35	CT-16A	CT-16A	TBD	NA	NA	14.25	NA	NA	NA	14.25
36	CT-17A	CT-17A	TBD	NA	NA	14.25	NA	NA	NA	14.25
37	CT-18A	CT-18A	TBD	NA	NA	14.25	NA	NA	NA	14.25
38	CT-19A	CT-19A	TBD	NA	NA	14.25	NA	NA	NA	14.25
39	CT-20A	CT-20A	TBD	NA	NA	14.25	NA	NA	NA	14.25
40	CT-21A	CT-21A	TBD	NA	NA	14.25	NA	NA	NA	14.25

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**PM10**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
	Affected or Modified Facilities [2]		**Permit No.**	**Actual Emissions [3]**	**Baseline Emissions [4]**	**Proposed Emissions [5]**	**Projected Actual Emissions**	**Difference (B-A) [6]**	**Correction [7] (Could Have Accomodated)**	**Project Increase [8]**
	FIN	**EPN [2]**								
41	CT-1B	CT-1B	TBD	NA	NA	48.63	NA	NA	NA	48.63
42	CT-2B	CT-2B	TBD	NA	NA	48.63	NA	NA	NA	48.63
43	CT-3B	CT-3B	TBD	NA	NA	48.63	NA	NA	NA	48.63
44	CT-4B	CT-4B	TBD	NA	NA	48.63	NA	NA	NA	48.63
45	CT-5B	CT-5B	TBD	NA	NA	48.63	NA	NA	NA	48.63
46	CT-6B	CT-6B	TBD	NA	NA	48.63	NA	NA	NA	48.63
47	CT-7B	CT-7B	TBD	NA	NA	48.63	NA	NA	NA	48.63
48	CT-8B	CT-8B	TBD	NA	NA	48.63	NA	NA	NA	48.63
49	CT-9B	CT-9B	TBD	NA	NA	48.63	NA	NA	NA	48.63
50	CT-10B	CT-10B	TBD	NA	NA	48.63	NA	NA	NA	48.63
51	CT-11B	CT-11B	TBD	NA	NA	48.63	NA	NA	NA	48.63
52	CT-12B	CT-12B	TBD	NA	NA	48.63	NA	NA	NA	48.63
53	CT-13B	CT-13B	TBD	NA	NA	48.63	NA	NA	NA	48.63
54	CT-14B	CT-14B	TBD	NA	NA	48.63	NA	NA	NA	48.63
55	DPHEAT1	DPHEAT1	TBD	NA	NA	0.29	NA	NA	NA	0.29
56	DPHEAT2	DPHEAT2	TBD	NA	NA	0.29	NA	NA	NA	0.29
57	DPHEAT3	DPHEAT3	TBD	NA	NA	0.29	NA	NA	NA	0.29
58	DPHEAT4	DPHEAT4	TBD	NA	NA	0.29	NA	NA	NA	0.29
59	DPHEAT5	DPHEAT5	TBD	NA	NA	0.29	NA	NA	NA	0.29
60	DPHEAT6	DPHEAT6	TBD	NA	NA	0.36	NA	NA	NA	0.36

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**PM10**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
	Affected or Modified Facilities [2]		Permit No.	Actual Emissions [3]	Baseline Emissions [4]	Proposed Emissions [5]	Projected Actual Emissions	Difference (B-A) [6]	Correction [7] (Could Have Accomodated)	Project Increase [8]
	FIN	EPN [2]								
61	DPHEAT7	DPHEAT7	TBD	NA	NA	0.36	NA	NA	NA	0.36
62	DPHEAT8	DPHEAT8	TBD	NA	NA	0.36	NA	NA	NA	0.36
63	DPHEAT9	DPHEAT9	TBD	NA	NA	0.36	NA	NA	NA	0.36
64	DPHEAT10	DPHEAT10	TBD	NA	NA	0.36	NA	NA	NA	0.36
65	DPHEAT11	DPHEAT11	TBD	NA	NA	0.36	NA	NA	NA	0.36
66	DPHEAT12	DPHEAT12	TBD	NA	NA	0.36	NA	NA	NA	0.36
67	DPHEAT13	DPHEAT13	TBD	NA	NA	0.36	NA	NA	NA	0.36
68	DPHEAT14	DPHEAT14	TBD	NA	NA	0.36	NA	NA	NA	0.36
69	DPHEAT15	DPHEAT15	TBD	NA	NA	0.36	NA	NA	NA	0.36
70	DPHEAT16	DPHEAT16	TBD	NA	NA	0.36	NA	NA	NA	0.36
71	DPHEAT17	DPHEAT17	TBD	NA	NA	0.36	NA	NA	NA	0.36
72	DPHEAT18	DPHEAT18	TBD	NA	NA	0.36	NA	NA	NA	0.36
73	DPHEAT19	DPHEAT19	TBD	NA	NA	0.36	NA	NA	NA	0.36
74	OILVENT1	OILVENT1	TBD	NA	NA	0.08	NA	NA	NA	0.08
75	OILVENT2	OILVENT2	TBD	NA	NA	0.08	NA	NA	NA	0.08
76	OILVENT3	OILVENT3	TBD	NA	NA	0.08	NA	NA	NA	0.08
77	OILVENT4	OILVENT4	TBD	NA	NA	0.08	NA	NA	NA	0.08
78	OILVENT5	OILVENT5	TBD	NA	NA	0.08	NA	NA	NA	0.08
79	OILVENT6	OILVENT6	TBD	NA	NA	0.08	NA	NA	NA	0.08
80	OILVENT7	OILVENT7	TBD	NA	NA	0.08	NA	NA	NA	0.08

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**PM10**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
	Affected or Modified Facilities [2]		Permit No.	Actual Emissions [3]	Baseline Emissions [4]	Proposed Emissions [5]	Projected Actual Emissions	Difference (B-A) [6]	Correction [7] (Could Have Accomodated)	Project Increase [8]
	FIN	EPN [2]								
81	OILVENT8	OILVENT8	TBD	NA	NA	0.08	NA	NA	NA	0.08
82	OILVENT9	OILVENT9	TBD	NA	NA	0.08	NA	NA	NA	0.08
83	OILVENT10	OILVENT10	TBD	NA	NA	0.08	NA	NA	NA	0.08
84	OILVENT11	OILVENT11	TBD	NA	NA	0.08	NA	NA	NA	0.08
85	OILVENT12	OILVENT12	TBD	NA	NA	0.08	NA	NA	NA	0.08
86	OILVENT13	OILVENT13	TBD	NA	NA	0.08	NA	NA	NA	0.08
87	OILVENT14	OILVENT14	TBD	NA	NA	0.08	NA	NA	NA	0.08
88	OILVENT15	OILVENT15	TBD	NA	NA	0.08	NA	NA	NA	0.08
89	OILVENT16	OILVENT16	TBD	NA	NA	0.08	NA	NA	NA	0.08
90	OILVENT17	OILVENT17	TBD	NA	NA	0.08	NA	NA	NA	0.08
91	OILVENT18	OILVENT18	TBD	NA	NA	0.08	NA	NA	NA	0.08
92	OILVENT19	OILVENT19	TBD	NA	NA	0.08	NA	NA	NA	0.08
93	OILVENT20	OILVENT20	TBD	NA	NA	0.08	NA	NA	NA	0.08
94	OILVENT21	OILVENT21	TBD	NA	NA	0.08	NA	NA	NA	0.08
95	OILVENT22	OILVENT22	TBD	NA	NA	0.08	NA	NA	NA	0.08
96	OILVENT23	OILVENT23	TBD	NA	NA	0.08	NA	NA	NA	0.08
97	OILVENT24	OILVENT24	TBD	NA	NA	0.08	NA	NA	NA	0.08
98	OILVENT25	OILVENT25	TBD	NA	NA	0.08	NA	NA	NA	0.08
99	OILVENT26	OILVENT26	TBD	NA	NA	0.08	NA	NA	NA	0.08
100	OILVENT27	OILVENT27	TBD	NA	NA	0.08	NA	NA	NA	0.08

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**PM10**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
	Affected or Modified Facilities [2]		Permit No.	Actual Emissions [3]	Baseline Emissions [4]	Proposed Emissions [5]	Projected Actual Emissions	Difference (B-A) [6]	Correction [7] (Could Have Accomodated)	Project Increase [8]
	FIN	EPN [2]								
101	OILVENT28	OILVENT28	TBD	NA	NA	0.08	NA	NA	NA	0.08
102	OILVENT29	OILVENT29	TBD	NA	NA	0.08	NA	NA	NA	0.08
103	OILVENT30	OILVENT30	TBD	NA	NA	0.08	NA	NA	NA	0.08
104	OILVENT31	OILVENT31	TBD	NA	NA	0.08	NA	NA	NA	0.08
105	OILVENT32	OILVENT32	TBD	NA	NA	0.08	NA	NA	NA	0.08
106	OILVENT33	OILVENT33	TBD	NA	NA	0.08	NA	NA	NA	0.08
107	OILVENT34	OILVENT34	TBD	NA	NA	0.08	NA	NA	NA	0.08
108	OILVENT35	OILVENT35	TBD	NA	NA	0.08	NA	NA	NA	0.08
109	FPUMP1	FPUMP1	TBD	NA	NA	0.00	NA	NA	NA	0.00
110	FPUMP2	FPUMP2	TBD	NA	NA	0.00	NA	NA	NA	0.00
111	EGEN1	EGEN1	TBD	NA	NA	0.08	NA	NA	NA	0.08
112	EGEN2	EGEN2	TBD	NA	NA	0.08	NA	NA	NA	0.08
113	EGEN3	EGEN3	TBD	NA	NA	0.08	NA	NA	NA	0.08
114	EGEN4	EGEN4	TBD	NA	NA	0.08	NA	NA	NA	0.08
115	EGEN5	EGEN5	TBD	NA	NA	0.08	NA	NA	NA	0.08
116	EGEN6	EGEN6	TBD	NA	NA	0.08	NA	NA	NA	0.08
117	EGEN7	EGEN7	TBD	NA	NA	0.08	NA	NA	NA	0.08
118	EGEN8	EGEN8	TBD	NA	NA	0.08	NA	NA	NA	0.08
119	EGEN9	EGEN9	TBD	NA	NA	0.08	NA	NA	NA	0.08
120	EGEN10	EGEN10	TBD	NA	NA	0.08	NA	NA	NA	0.08

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**PM10**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
	Affected or Modified Facilities [2]		**Permit No.**	**Actual Emissions [3]**	**Baseline Emissions [4]**	**Proposed Emissions [5]**	**Projected Actual Emissions**	**Difference (B-A) [6]**	**Correction [7] (Could Have Accomodated)**	**Project Increase [8]**
	FIN	**EPN [2]**								
121	EGEN11	EGEN11	TBD	NA	NA	0.08	NA	NA	NA	0.08
122	EGEN12	EGEN12	TBD	NA	NA	0.08	NA	NA	NA	0.08
123	EGEN13	EGEN13	TBD	NA	NA	0.08	NA	NA	NA	0.08
124	EGEN14	EGEN14	TBD	NA	NA	0.08	NA	NA	NA	0.08
125	EGEN15	EGEN15	TBD	NA	NA	0.08	NA	NA	NA	0.08
126	ENGINE-1	ENGINE-1	TBD	NA	NA	0.32	NA	NA	NA	0.32
127	ENGINE-2	ENGINE-2	TBD	NA	NA	0.32	NA	NA	NA	0.32
128	MSSFUG	MSSFUG	TBD	NA	NA	0.00	NA	NA	NA	0.00
Summary of Contemporaneous Changes								**Total**	**0.00**	**995.03**

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**PM10**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
Affected or Modified Facilities [2]			**Permit No.**	**Actual Emissions [3]**	**Baseline Emissions [4]**	**Proposed Emissions [5]**	**Projected Actual Emissions**	**Difference (B-A) [6]**	**Correction [7] (Could Have Accomodated)**	**Project Increase [8]**
	FIN	**EPN [2]**								
Explanation (Table 2F Supplement):										

[1] Individual Table 2F's should be used to summarize the project emission increase for each criteria pollutant.

[2] Emission Point Number as designated in NSR Permit or Emissions Inventory.

[3] All records and calculations for these values must be available upon request.

[4] Correct actual emissions for currently applicable rule or permit requirements, and periods of non-compliance. These corrections, as well as any MSS previously demonstrated under 30 TAC 101, should be explained in the Table 2F supplement.

[5] If projected actual emission is used it must be noted in the next column and the basis for the projection identified in the Table 2F supplement.

[6] Proposed Emissions (column B) minus Baseline Emissions (column A).

[7] Correction made to emission increase for what portion could have been accommodated during the baseline period. The justification and basis for this estimate must be provided in the Table 2F supplement.

[8] Obtained by subtracting the correction from the difference. Must be a positive number.

[9] Sum all values for this page.

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**PM2.5**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
	Affected or Modified Facilities [2]		**Permit No.**	**Actual Emissions [3]**	**Baseline Emissions [4]**	**Proposed Emissions [5]**	**Projected Actual Emissions**	**Difference (B-A) [6]**	**Correction [7] (Could Have Accomodated)**	**Project Increase [8]**
	FIN	**EPN [2]**								
1	CO-1	CO-1	TBD	NA	NA	0.00	NA	NA	NA	0.001
2	CO-2	CO-2	TBD	NA	NA	0.00	NA	NA	NA	0.001
3	CO-3	CO-3	TBD	NA	NA	0.00	NA	NA	NA	0.001
4	CO-4	CO-4	TBD	NA	NA	0.00	NA	NA	NA	0.001
5	CO-5	CO-5	TBD	NA	NA	0.00	NA	NA	NA	0.001
6	CO-6	CO-6	TBD	NA	NA	0.00	NA	NA	NA	0.001
7	CO-7	CO-7	TBD	NA	NA	0.00	NA	NA	NA	0.001
8	CO-8	CO-8	TBD	NA	NA	0.00	NA	NA	NA	0.001
9	CO-9	CO-9	TBD	NA	NA	0.00	NA	NA	NA	0.001
10	CO-10	CO-10	TBD	NA	NA	0.00	NA	NA	NA	0.001
11	CO-11	CO-11	TBD	NA	NA	0.00	NA	NA	NA	0.001
12	CO-12	CO-12	TBD	NA	NA	0.00	NA	NA	NA	0.001
13	CO-13	CO-13	TBD	NA	NA	0.00	NA	NA	NA	0.001
14	CO-14	CO-14	TBD	NA	NA	0.00	NA	NA	NA	0.001
15	CO-15	CO-15	TBD	NA	NA	0.00	NA	NA	NA	0.001
16	CO-16	CO-16	TBD	NA	NA	0.00	NA	NA	NA	0.001
17	CO-17	CO-17	TBD	NA	NA	0.00	NA	NA	NA	0.001
18	CO-18	CO-18	TBD	NA	NA	0.00	NA	NA	NA	0.001
19	CO-19	CO-19	TBD	NA	NA	0.00	NA	NA	NA	0.001
20	CT-1A	CT-1A	TBD	NA	NA	14.25	NA	NA	NA	14.25

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**PM2.5**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
	Affected or Modified Facilities [2]		**Permit No.**	**Actual Emissions [3]**	**Baseline Emissions [4]**	**Proposed Emissions [5]**	**Projected Actual Emissions**	**Difference (B-A) [6]**	**Correction [7] (Could Have Accomodated)**	**Project Increase [8]**
	FIN	**EPN [2]**								
21	CT-2A	CT-2A	TBD	NA	NA	14.25	NA	NA	NA	14.25
22	CT-3A	CT-3A	TBD	NA	NA	14.25	NA	NA	NA	14.25
23	CT-4A	CT-4A	TBD	NA	NA	14.25	NA	NA	NA	14.25
24	CT-5A	CT-5A	TBD	NA	NA	14.25	NA	NA	NA	14.25
25	CT-6A	CT-6A	TBD	NA	NA	14.25	NA	NA	NA	14.25
26	CT-7A	CT-7A	TBD	NA	NA	14.25	NA	NA	NA	14.25
27	CT-8A	CT-8A	TBD	NA	NA	14.25	NA	NA	NA	14.25
28	CT-9A	CT-9A	TBD	NA	NA	14.25	NA	NA	NA	14.25
29	CT-10A	CT-10A	TBD	NA	NA	14.25	NA	NA	NA	14.25
30	CT-11A	CT-11A	TBD	NA	NA	14.25	NA	NA	NA	14.25
31	CT-12A	CT-12A	TBD	NA	NA	14.25	NA	NA	NA	14.25
32	CT-13A	CT-13A	TBD	NA	NA	14.25	NA	NA	NA	14.25
33	CT-14A	CT-14A	TBD	NA	NA	14.25	NA	NA	NA	14.25
34	CT-15A	CT-15A	TBD	NA	NA	14.25	NA	NA	NA	14.25
35	CT-16A	CT-16A	TBD	NA	NA	14.25	NA	NA	NA	14.25
36	CT-17A	CT-17A	TBD	NA	NA	14.25	NA	NA	NA	14.25
37	CT-18A	CT-18A	TBD	NA	NA	14.25	NA	NA	NA	14.25
38	CT-19A	CT-19A	TBD	NA	NA	14.25	NA	NA	NA	14.25
39	CT-20A	CT-20A	TBD	NA	NA	14.25	NA	NA	NA	14.25
40	CT-21A	CT-21A	TBD	NA	NA	14.25	NA	NA	NA	14.25

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**PM2.5**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
	Affected or Modified Facilities [2]		**Permit No.**	**Actual Emissions [3]**	**Baseline Emissions [4]**	**Proposed Emissions [5]**	**Projected Actual Emissions**	**Difference (B-A) [6]**	**Correction [7] (Could Have Accomodated)**	**Project Increase [8]**
	FIN	**EPN [2]**								
41	CT-1B	CT-1B	TBD	NA	NA	48.63	NA	NA	NA	48.63
42	CT-2B	CT-2B	TBD	NA	NA	48.63	NA	NA	NA	48.63
43	CT-3B	CT-3B	TBD	NA	NA	48.63	NA	NA	NA	48.63
44	CT-4B	CT-4B	TBD	NA	NA	48.63	NA	NA	NA	48.63
45	CT-5B	CT-5B	TBD	NA	NA	48.63	NA	NA	NA	48.63
46	CT-6B	CT-6B	TBD	NA	NA	48.63	NA	NA	NA	48.63
47	CT-7B	CT-7B	TBD	NA	NA	48.63	NA	NA	NA	48.63
48	CT-8B	CT-8B	TBD	NA	NA	48.63	NA	NA	NA	48.63
49	CT-9B	CT-9B	TBD	NA	NA	48.63	NA	NA	NA	48.63
50	CT-10B	CT-10B	TBD	NA	NA	48.63	NA	NA	NA	48.63
51	CT-11B	CT-11B	TBD	NA	NA	48.63	NA	NA	NA	48.63
52	CT-12B	CT-12B	TBD	NA	NA	48.63	NA	NA	NA	48.63
53	CT-13B	CT-13B	TBD	NA	NA	48.63	NA	NA	NA	48.63
54	CT-14B	CT-14B	TBD	NA	NA	48.63	NA	NA	NA	48.63
55	DPHEAT1	DPHEAT1	TBD	NA	NA	0.29	NA	NA	NA	0.29
56	DPHEAT2	DPHEAT2	TBD	NA	NA	0.29	NA	NA	NA	0.29
57	DPHEAT3	DPHEAT3	TBD	NA	NA	0.29	NA	NA	NA	0.29
58	DPHEAT4	DPHEAT4	TBD	NA	NA	0.29	NA	NA	NA	0.29
59	DPHEAT5	DPHEAT5	TBD	NA	NA	0.29	NA	NA	NA	0.29
60	DPHEAT6	DPHEAT6	TBD	NA	NA	0.36	NA	NA	NA	0.36

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**PM2.5**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
	Affected or Modified Facilities [2]		Permit No.	Actual Emissions [3]	Baseline Emissions [4]	Proposed Emissions [5]	Projected Actual Emissions	Difference (B-A) [6]	Correction [7] (Could Have Accomodated)	Project Increase [8]
	FIN	EPN [2]								
61	DPHEAT7	DPHEAT7	TBD	NA	NA	0.36	NA	NA	NA	0.36
62	DPHEAT8	DPHEAT8	TBD	NA	NA	0.36	NA	NA	NA	0.36
63	DPHEAT9	DPHEAT9	TBD	NA	NA	0.36	NA	NA	NA	0.36
64	DPHEAT10	DPHEAT10	TBD	NA	NA	0.36	NA	NA	NA	0.36
65	DPHEAT11	DPHEAT11	TBD	NA	NA	0.36	NA	NA	NA	0.36
66	DPHEAT12	DPHEAT12	TBD	NA	NA	0.36	NA	NA	NA	0.36
67	DPHEAT13	DPHEAT13	TBD	NA	NA	0.36	NA	NA	NA	0.36
68	DPHEAT14	DPHEAT14	TBD	NA	NA	0.36	NA	NA	NA	0.36
69	DPHEAT15	DPHEAT15	TBD	NA	NA	0.36	NA	NA	NA	0.36
70	DPHEAT16	DPHEAT16	TBD	NA	NA	0.36	NA	NA	NA	0.36
71	DPHEAT17	DPHEAT17	TBD	NA	NA	0.36	NA	NA	NA	0.36
72	DPHEAT18	DPHEAT18	TBD	NA	NA	0.36	NA	NA	NA	0.36
73	DPHEAT19	DPHEAT19	TBD	NA	NA	0.36	NA	NA	NA	0.36
74	OILVENT1	OILVENT1	TBD	NA	NA	0.08	NA	NA	NA	0.08
75	OILVENT2	OILVENT2	TBD	NA	NA	0.08	NA	NA	NA	0.08
76	OILVENT3	OILVENT3	TBD	NA	NA	0.08	NA	NA	NA	0.08
77	OILVENT4	OILVENT4	TBD	NA	NA	0.08	NA	NA	NA	0.08
78	OILVENT5	OILVENT5	TBD	NA	NA	0.08	NA	NA	NA	0.08
79	OILVENT6	OILVENT6	TBD	NA	NA	0.08	NA	NA	NA	0.08
80	OILVENT7	OILVENT7	TBD	NA	NA	0.08	NA	NA	NA	0.08

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**PM2.5**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
	Affected or Modified Facilities [2]		Permit No.	Actual Emissions [3]	Baseline Emissions [4]	Proposed Emissions [5]	Projected Actual Emissions	Difference (B-A) [6]	Correction [7] (Could Have Accomodated)	Project Increase [8]
	FIN	EPN [2]								
81	OILVENT8	OILVENT8	TBD	NA	NA	0.08	NA	NA	NA	0.08
82	OILVENT9	OILVENT9	TBD	NA	NA	0.08	NA	NA	NA	0.08
83	OILVENT10	OILVENT10	TBD	NA	NA	0.08	NA	NA	NA	0.08
84	OILVENT11	OILVENT11	TBD	NA	NA	0.08	NA	NA	NA	0.08
85	OILVENT12	OILVENT12	TBD	NA	NA	0.08	NA	NA	NA	0.08
86	OILVENT13	OILVENT13	TBD	NA	NA	0.08	NA	NA	NA	0.08
87	OILVENT14	OILVENT14	TBD	NA	NA	0.08	NA	NA	NA	0.08
88	OILVENT15	OILVENT15	TBD	NA	NA	0.08	NA	NA	NA	0.08
89	OILVENT16	OILVENT16	TBD	NA	NA	0.08	NA	NA	NA	0.08
90	OILVENT17	OILVENT17	TBD	NA	NA	0.08	NA	NA	NA	0.08
91	OILVENT18	OILVENT18	TBD	NA	NA	0.08	NA	NA	NA	0.08
92	OILVENT19	OILVENT19	TBD	NA	NA	0.08	NA	NA	NA	0.08
93	OILVENT20	OILVENT20	TBD	NA	NA	0.08	NA	NA	NA	0.08
94	OILVENT21	OILVENT21	TBD	NA	NA	0.08	NA	NA	NA	0.08
95	OILVENT22	OILVENT22	TBD	NA	NA	0.08	NA	NA	NA	0.08
96	OILVENT23	OILVENT23	TBD	NA	NA	0.08	NA	NA	NA	0.08
97	OILVENT24	OILVENT24	TBD	NA	NA	0.08	NA	NA	NA	0.08
98	OILVENT25	OILVENT25	TBD	NA	NA	0.08	NA	NA	NA	0.08
99	OILVENT26	OILVENT26	TBD	NA	NA	0.08	NA	NA	NA	0.08
100	OILVENT27	OILVENT27	TBD	NA	NA	0.08	NA	NA	NA	0.08

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**PM2.5**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
	Affected or Modified Facilities [2]		**Permit No.**	**Actual Emissions [3]**	**Baseline Emissions [4]**	**Proposed Emissions [5]**	**Projected Actual Emissions**	**Difference (B-A) [6]**	**Correction [7] (Could Have Accomodated)**	**Project Increase [8]**
	FIN	**EPN [2]**								
101	OILVENT28	OILVENT28	TBD	NA	NA	0.08	NA	NA	NA	0.08
102	OILVENT29	OILVENT29	TBD	NA	NA	0.08	NA	NA	NA	0.08
103	OILVENT30	OILVENT30	TBD	NA	NA	0.08	NA	NA	NA	0.08
104	OILVENT31	OILVENT31	TBD	NA	NA	0.08	NA	NA	NA	0.08
105	OILVENT32	OILVENT32	TBD	NA	NA	0.08	NA	NA	NA	0.08
106	OILVENT33	OILVENT33	TBD	NA	NA	0.08	NA	NA	NA	0.08
107	OILVENT34	OILVENT34	TBD	NA	NA	0.08	NA	NA	NA	0.08
108	OILVENT35	OILVENT35	TBD	NA	NA	0.08	NA	NA	NA	0.08
109	FPUMP1	FPUMP1	TBD	NA	NA	0.00	NA	NA	NA	0.002
110	FPUMP2	FPUMP2	TBD	NA	NA	0.00	NA	NA	NA	0.002
111	EGEN1	EGEN1	TBD	NA	NA	0.08	NA	NA	NA	0.08
112	EGEN2	EGEN2	TBD	NA	NA	0.08	NA	NA	NA	0.08
113	EGEN3	EGEN3	TBD	NA	NA	0.08	NA	NA	NA	0.08
114	EGEN4	EGEN4	TBD	NA	NA	0.08	NA	NA	NA	0.08
115	EGEN5	EGEN5	TBD	NA	NA	0.08	NA	NA	NA	0.08
116	EGEN6	EGEN6	TBD	NA	NA	0.08	NA	NA	NA	0.08
117	EGEN7	EGEN7	TBD	NA	NA	0.08	NA	NA	NA	0.08
118	EGEN8	EGEN8	TBD	NA	NA	0.08	NA	NA	NA	0.08
119	EGEN9	EGEN9	TBD	NA	NA	0.08	NA	NA	NA	0.08
120	EGEN10	EGEN10	TBD	NA	NA	0.08	NA	NA	NA	0.08

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**PM2.5**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
	Affected or Modified Facilities [2]		**Permit No.**	**Actual Emissions [3]**	**Baseline Emissions [4]**	**Proposed Emissions [5]**	**Projected Actual Emissions**	**Difference (B-A) [6]**	**Correction [7] (Could Have Accomodated)**	**Project Increase [8]**
	FIN	**EPN [2]**								
121	EGEN11	EGEN11	TBD	NA	NA	0.08	NA	NA	NA	0.08
122	EGEN12	EGEN12	TBD	NA	NA	0.08	NA	NA	NA	0.08
123	EGEN13	EGEN13	TBD	NA	NA	0.08	NA	NA	NA	0.08
124	EGEN14	EGEN14	TBD	NA	NA	0.08	NA	NA	NA	0.08
125	EGEN15	EGEN15	TBD	NA	NA	0.08	NA	NA	NA	0.08
126	ENGINE-1	ENGINE-1	TBD	NA	NA	0.32	NA	NA	NA	0.32
127	ENGINE-2	ENGINE-2	TBD	NA	NA	0.32	NA	NA	NA	0.32
128	MSSFUG	MSSFUG	TBD	NA	NA	0.00	NA	NA	NA	0.00
Summary of Contemporaneous Changes								**Total**	**0.00**	**991.26**

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**PM2.5**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
Affected or Modified Facilities [2]			**Permit No.**	**Actual Emissions [3]**	**Baseline Emissions [4]**	**Proposed Emissions [5]**	**Projected Actual Emissions**	**Difference (B-A) [6]**	**Correction [7] (Could Have Accomodated)**	**Project Increase [8]**
	FIN	**EPN [2]**								
Explanation (Table 2F Supplement):										

[1] Individual Table 2F's should be used to summarize the project emission increase for each criteria pollutant.

[2] Emission Point Number as designated in NSR Permit or Emissions Inventory.

[3] All records and calculations for these values must be available upon request.

[4] Correct actual emissions for currently applicable rule or permit requirements, and periods of non-compliance. These corrections, as well as any MSS previously demonstrated under 30 TAC 101, should be explained in the Table 2F supplement.

[5] If projected actual emission is used it must be noted in the next column and the basis for the projection identified in the Table 2F supplement.

[6] Proposed Emissions (column B) minus Baseline Emissions (column A).

[7] Correction made to emission increase for what portion could have been accommodated during the baseline period. The justification and basis for this estimate must be provided in the Table 2F supplement.

[8] Obtained by subtracting the correction from the difference. Must be a positive number.

[9] Sum all values for this page.

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**SO2**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
	Affected or Modified Facilities [2]		**Permit No.**	**Actual Emissions [3]**	**Baseline Emissions [4]**	**Proposed Emissions [5]**	**Projected Actual Emissions**	**Difference (B-A) [6]**	**Correction [7] (Could Have Accomodated)**	**Project Increase [8]**
	FIN	**EPN [2]**								
1	CT-1A	CT-1A	TBD	NA	NA	3.24	NA	NA	NA	3.24
2	CT-2A	CT-2A	TBD	NA	NA	3.24	NA	NA	NA	3.24
3	CT-3A	CT-3A	TBD	NA	NA	3.24	NA	NA	NA	3.24
4	CT-4A	CT-4A	TBD	NA	NA	3.24	NA	NA	NA	3.24
5	CT-5A	CT-5A	TBD	NA	NA	3.24	NA	NA	NA	3.24
6	CT-6A	CT-6A	TBD	NA	NA	3.24	NA	NA	NA	3.24
7	CT-7A	CT-7A	TBD	NA	NA	3.24	NA	NA	NA	3.24
8	CT-8A	CT-8A	TBD	NA	NA	3.24	NA	NA	NA	3.24
9	CT-9A	CT-9A	TBD	NA	NA	3.24	NA	NA	NA	3.24
10	CT-10A	CT-10A	TBD	NA	NA	3.24	NA	NA	NA	3.24
11	CT-11A	CT-11A	TBD	NA	NA	3.24	NA	NA	NA	3.24
12	CT-12A	CT-12A	TBD	NA	NA	3.24	NA	NA	NA	3.24
13	CT-13A	CT-13A	TBD	NA	NA	3.24	NA	NA	NA	3.24
14	CT-14A	CT-14A	TBD	NA	NA	3.24	NA	NA	NA	3.24
15	CT-15A	CT-15A	TBD	NA	NA	3.24	NA	NA	NA	3.24
16	CT-16A	CT-16A	TBD	NA	NA	3.24	NA	NA	NA	3.24
17	CT-17A	CT-17A	TBD	NA	NA	3.24	NA	NA	NA	3.24
18	CT-18A	CT-18A	TBD	NA	NA	3.24	NA	NA	NA	3.24
19	CT-19A	CT-19A	TBD	NA	NA	3.24	NA	NA	NA	3.24
20	CT-20A	CT-20A	TBD	NA	NA	3.24	NA	NA	NA	3.24

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**SO2**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
	Affected or Modified Facilities [2]		Permit No.	Actual Emissions [3]	Baseline Emissions [4]	Proposed Emissions [5]	Projected Actual Emissions	Difference (B-A) [6]	Correction [7] (Could Have Accomodated)	Project Increase [8]
	FIN	EPN [2]								
21	CT-21A	CT-21A	TBD	NA	NA	3.24	NA	NA	NA	3.24
22	CT-1B	CT-1B	TBD	NA	NA	23.45	NA	NA	NA	23.45
23	CT-2B	CT-2B	TBD	NA	NA	23.45	NA	NA	NA	23.45
24	CT-3B	CT-3B	TBD	NA	NA	23.45	NA	NA	NA	23.45
25	CT-4B	CT-4B	TBD	NA	NA	23.45	NA	NA	NA	23.45
26	CT-5B	CT-5B	TBD	NA	NA	23.45	NA	NA	NA	23.45
27	CT-6B	CT-6B	TBD	NA	NA	23.45	NA	NA	NA	23.45
28	CT-7B	CT-7B	TBD	NA	NA	23.45	NA	NA	NA	23.45
29	CT-8B	CT-8B	TBD	NA	NA	23.45	NA	NA	NA	23.45
30	CT-9B	CT-9B	TBD	NA	NA	23.45	NA	NA	NA	23.45
31	CT-10B	CT-10B	TBD	NA	NA	23.45	NA	NA	NA	23.45
32	CT-11B	CT-11B	TBD	NA	NA	23.45	NA	NA	NA	23.45
33	CT-12B	CT-12B	TBD	NA	NA	23.45	NA	NA	NA	23.45
34	CT-13B	CT-13B	TBD	NA	NA	23.45	NA	NA	NA	23.45
35	CT-14B	CT-14B	TBD	NA	NA	23.45	NA	NA	NA	23.45
36	DPHEAT1	DPHEAT1	TBD	NA	NA	0.05	NA	NA	NA	0.05
37	DPHEAT2	DPHEAT2	TBD	NA	NA	0.05	NA	NA	NA	0.05
38	DPHEAT3	DPHEAT3	TBD	NA	NA	0.05	NA	NA	NA	0.05
39	DPHEAT4	DPHEAT4	TBD	NA	NA	0.05	NA	NA	NA	0.05
40	DPHEAT5	DPHEAT5	TBD	NA	NA	0.05	NA	NA	NA	0.05

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**SO2**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
	Affected or Modified Facilities [2]		Permit No.	Actual Emissions [3]	Baseline Emissions [4]	Proposed Emissions [5]	Projected Actual Emissions	Difference (B-A) [6]	Correction [7] (Could Have Accomodated)	Project Increase [8]
	FIN	EPN [2]								
41	DPHEAT6	DPHEAT6	TBD	NA	NA	0.07	NA	NA	NA	0.07
42	DPHEAT7	DPHEAT7	TBD	NA	NA	0.07	NA	NA	NA	0.07
43	DPHEAT8	DPHEAT8	TBD	NA	NA	0.07	NA	NA	NA	0.07
44	DPHEAT9	DPHEAT9	TBD	NA	NA	0.07	NA	NA	NA	0.07
45	DPHEAT10	DPHEAT10	TBD	NA	NA	0.07	NA	NA	NA	0.07
46	DPHEAT11	DPHEAT11	TBD	NA	NA	0.07	NA	NA	NA	0.07
47	DPHEAT12	DPHEAT12	TBD	NA	NA	0.07	NA	NA	NA	0.07
48	DPHEAT13	DPHEAT13	TBD	NA	NA	0.07	NA	NA	NA	0.07
49	DPHEAT14	DPHEAT14	TBD	NA	NA	0.07	NA	NA	NA	0.07
50	DPHEAT15	DPHEAT15	TBD	NA	NA	0.07	NA	NA	NA	0.07
51	DPHEAT16	DPHEAT16	TBD	NA	NA	0.07	NA	NA	NA	0.07
52	DPHEAT17	DPHEAT17	TBD	NA	NA	0.07	NA	NA	NA	0.07
53	DPHEAT18	DPHEAT18	TBD	NA	NA	0.07	NA	NA	NA	0.07
54	DPHEAT19	DPHEAT19	TBD	NA	NA	0.07	NA	NA	NA	0.07
55	FPUMP1	FPUMP1	TBD	NA	NA	0.00	NA	NA	NA	0.0002
56	FPUMP2	FPUMP2	TBD	NA	NA	0.00	NA	NA	NA	0.0002
57	EGEN1	EGEN1	TBD	NA	NA	0.00	NA	NA	NA	0.003
58	EGEN2	EGEN2	TBD	NA	NA	0.00	NA	NA	NA	0.003
59	EGEN3	EGEN3	TBD	NA	NA	0.00	NA	NA	NA	0.003
60	EGEN4	EGEN4	TBD	NA	NA	0.00	NA	NA	NA	0.003

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**SO2**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
Affected or Modified Facilities [2]			**Permit No.**	**Actual Emissions [3]**	**Baseline Emissions [4]**	**Proposed Emissions [5]**	**Projected Actual Emissions**	**Difference (B-A) [6]**	**Correction [7] (Could Have Accomodated)**	**Project Increase [8]**
	FIN	**EPN [2]**								
61	EGEN5	EGEN5	TBD	NA	NA	0.00	NA	NA	NA	0.003
62	EGEN6	EGEN6	TBD	NA	NA	0.00	NA	NA	NA	0.003
63	EGEN7	EGEN7	TBD	NA	NA	0.00	NA	NA	NA	0.003
64	EGEN8	EGEN8	TBD	NA	NA	0.00	NA	NA	NA	0.003
65	EGEN9	EGEN9	TBD	NA	NA	0.00	NA	NA	NA	0.003
66	EGEN10	EGEN10	TBD	NA	NA	0.00	NA	NA	NA	0.003
67	EGEN11	EGEN11	TBD	NA	NA	0.00	NA	NA	NA	0.003
68	EGEN12	EGEN12	TBD	NA	NA	0.00	NA	NA	NA	0.003
69	EGEN13	EGEN13	TBD	NA	NA	0.00	NA	NA	NA	0.003
70	EGEN14	EGEN14	TBD	NA	NA	0.00	NA	NA	NA	0.003
71	EGEN15	EGEN15	TBD	NA	NA	0.00	NA	NA	NA	0.003
72	ENGINE-1	ENGINE-1	TBD	NA	NA	0.05	NA	NA	NA	0.05
73	ENGINE-2	ENGINE-2	TBD	NA	NA	0.05	NA	NA	NA	0.05
74	MSSFUG	MSSFUG	TBD	NA	NA	0.00	NA	NA	NA	0.00
Summary of Contemporaneous Changes								**Total**	**0.00**	**397.70**

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**SO2**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
Affected or Modified Facilities [2]			**Permit No.**	**Actual Emissions [3]**	**Baseline Emissions [4]**	**Proposed Emissions [5]**	**Projected Actual Emissions**	**Difference (B-A) [6]**	**Correction [7] (Could Have Accomodated)**	**Project Increase [8]**
	FIN	**EPN [2]**								
Explanation (Table 2F Supplement):										

[1] Individual Table 2F's should be used to summarize the project emission increase for each criteria pollutant.

[2] Emission Point Number as designated in NSR Permit or Emissions Inventory.

[3] All records and calculations for these values must be available upon request.

[4] Correct actual emissions for currently applicable rule or permit requirements, and periods of non-compliance. These corrections, as well as any MSS previously demonstrated under 30 TAC 101, should be explained in the Table 2F supplement.

[5] If projected actual emission is used it must be noted in the next column and the basis for the projection identified in the Table 2F supplement.

[6] Proposed Emissions (column B) minus Baseline Emissions (column A).

[7] Correction made to emission increase for what portion could have been accommodated during the baseline period. The justification and basis for this estimate must be provided in the Table 2F supplement.

[8] Obtained by subtracting the correction from the difference. Must be a positive number.

[9] Sum all values for this page.

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**H2SO4**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
	Affected or Modified Facilities [2]		Permit No.	Actual Emissions [3]	Baseline Emissions [4]	Proposed Emissions [5]	Projected Actual Emissions	Difference (B-A) [6]	Correction [7] (Could Have Accomodated)	Project Increase [8]
	FIN	EPN [2]								
1	CT-1A	CT-1A	TBD	NA	NA	0.50	NA	NA	NA	0.50
2	CT-2A	CT-2A	TBD	NA	NA	0.50	NA	NA	NA	0.50
3	CT-3A	CT-3A	TBD	NA	NA	0.50	NA	NA	NA	0.50
4	CT-4A	CT-4A	TBD	NA	NA	0.50	NA	NA	NA	0.50
5	CT-5A	CT-5A	TBD	NA	NA	0.50	NA	NA	NA	0.50
6	CT-6A	CT-6A	TBD	NA	NA	0.50	NA	NA	NA	0.50
7	CT-7A	CT-7A	TBD	NA	NA	0.50	NA	NA	NA	0.50
8	CT-8A	CT-8A	TBD	NA	NA	0.50	NA	NA	NA	0.50
9	CT-9A	CT-9A	TBD	NA	NA	0.50	NA	NA	NA	0.50
10	CT-10A	CT-10A	TBD	NA	NA	0.50	NA	NA	NA	0.50
11	CT-11A	CT-11A	TBD	NA	NA	0.50	NA	NA	NA	0.50
12	CT-12A	CT-12A	TBD	NA	NA	0.50	NA	NA	NA	0.50
13	CT-13A	CT-13A	TBD	NA	NA	0.50	NA	NA	NA	0.50
14	CT-14A	CT-14A	TBD	NA	NA	0.50	NA	NA	NA	0.50
15	CT-15A	CT-15A	TBD	NA	NA	0.50	NA	NA	NA	0.50
16	CT-16A	CT-16A	TBD	NA	NA	0.50	NA	NA	NA	0.50
17	CT-17A	CT-17A	TBD	NA	NA	0.50	NA	NA	NA	0.50
18	CT-18A	CT-18A	TBD	NA	NA	0.50	NA	NA	NA	0.50
19	CT-19A	CT-19A	TBD	NA	NA	0.50	NA	NA	NA	0.50
20	CT-20A	CT-20A	TBD	NA	NA	0.50	NA	NA	NA	0.50

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**H2SO4**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
	Affected or Modified Facilities [2]		**Permit No.**	**Actual Emissions [3]**	**Baseline Emissions [4]**	**Proposed Emissions [5]**	**Projected Actual Emissions**	**Difference (B-A) [6]**	**Correction [7] (Could Have Accomodated)**	**Project Increase [8]**
	FIN	**EPN [2]**								
21	CT-21A	CT-21A	TBD	NA	NA	0.50	NA	NA	NA	0.50
22	CT-1B	CT-1B	TBD	NA	NA	3.59	NA	NA	NA	3.59
23	CT-2B	CT-2B	TBD	NA	NA	3.59	NA	NA	NA	3.59
24	CT-3B	CT-3B	TBD	NA	NA	3.59	NA	NA	NA	3.59
25	CT-4B	CT-4B	TBD	NA	NA	3.59	NA	NA	NA	3.59
26	CT-5B	CT-5B	TBD	NA	NA	3.59	NA	NA	NA	3.59
27	CT-6B	CT-6B	TBD	NA	NA	3.59	NA	NA	NA	3.59
28	CT-7B	CT-7B	TBD	NA	NA	3.59	NA	NA	NA	3.59
29	CT-8B	CT-8B	TBD	NA	NA	3.59	NA	NA	NA	3.59
30	CT-9B	CT-9B	TBD	NA	NA	3.59	NA	NA	NA	3.59
31	CT-10B	CT-10B	TBD	NA	NA	3.59	NA	NA	NA	3.59
32	CT-11B	CT-11B	TBD	NA	NA	3.59	NA	NA	NA	3.59
33	CT-12B	CT-12B	TBD	NA	NA	3.59	NA	NA	NA	3.59
34	CT-13B	CT-13B	TBD	NA	NA	3.59	NA	NA	NA	3.59
35	CT-14B	CT-14B	TBD	NA	NA	3.59	NA	NA	NA	3.59
74	MSSFUG	MSSFUG	TBD	NA	NA	0.00	NA	NA	NA	0.00
Summary of Contemporaneous Changes								**Total**	**0.00**	**60.66**

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**H2SO4**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

				A	B				
Affected or Modified Facilities [2]			**Permit No.**	**Actual Emissions [3]**	**Baseline Emissions [4]**	**Proposed Emissions [5]**	**Projected Actual Emissions**	**Difference (B-A) [6]**	**Correction [7] (Could Have Accomodated)**	**Project Increase [8]**
	FIN	**EPN [2]**								
Explanation (Table 2F Supplement):										

[1] Individual Table 2F's should be used to summarize the project emission increase for each criteria pollutant.

[2] Emission Point Number as designated in NSR Permit or Emissions Inventory.

[3] All records and calculations for these values must be available upon request.

[4] Correct actual emissions for currently applicable rule or permit requirements, and periods of non-compliance. These corrections, as well as any MSS previously demonstrated under 30 TAC 101, should be explained in the Table 2F supplement.

[5] If projected actual emission is used it must be noted in the next column and the basis for the projection identified in the Table 2F supplement.

[6] Proposed Emissions (column B) minus Baseline Emissions (column A).

[7] Correction made to emission increase for what portion could have been accommodated during the baseline period. The justification and basis for this estimate must be provided in the Table 2F supplement.

[8] Obtained by subtracting the correction from the difference. Must be a positive number.

[9] Sum all values for this page.

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**H2S**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
	Affected or Modified Facilities [2]		**Permit No.**	**Actual Emissions [3]**	**Baseline Emissions [4]**	**Proposed Emissions [5]**	**Projected Actual Emissions**	**Difference (B-A) [6]**	**Correction [7] (Could Have Accomodated)**	**Project Increase [8]**
	FIN	**EPN [2]**								
1	NGFUG	NGFUG	TBD	NA	NA	0.00	NA	NA	NA	2.18E-04
2	MSSFUG	MSSFUG	TBD	NA	NA	0.00	NA	NA	NA	3.20E-05
Summary of Contemporaneous Changes								**Total**	**0.00**	**2.50E-04**

Explanation (Table 2F Supplement):

[1] Individual Table 2F's should be used to summarize the project emission increase for each criteria pollutant.

[2] Emission Point Number as designated in NSR Permit or Emissions Inventory.

[3] All records and calculations for these values must be available upon request.

[4] Correct actual emissions for currently applicable rule or permit requirements, and periods of non-compliance. These corrections, as well as any MSS previously demonstrated under 30 TAC 101, should be explained in the Table 2F supplement.

[5] If projected actual emission is used it must be noted in the next column and the basis for the projection identified in the Table 2F supplement.

[6] Proposed Emissions (column B) minus Baseline Emissions (column A).

[7] Correction made to emission increase for what portion could have been accommodated during the baseline period. The justification and basis for this estimate must be provided in the Table 2F supplement.

[8] Obtained by subtracting the correction from the difference. Must be a positive number.

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**H2S**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

				A	B				
Affected or Modified Facilities [2]			**Permit No.**	**Actual Emissions [3]**	**Baseline Emissions [4]**	**Proposed Emissions [5]**	**Projected Actual Emissions**	**Difference (B-A) [6]**	**Correction [7] (Could Have Accomodated)**	**Project Increase [8]**
	FIN	**EPN [2]**								

[9] Sum all values for this page.

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**CO2 Equivalent**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

						A	B			
	Affected or Modified Facilities [2]		**Permit No.**	**Actual Emissions [3]**	**Baseline Emissions [4]**	**Proposed Emissions [5]**	**Projected Actual Emissions**	**Difference (B-A) [6]**	**Correction [7] (Could Have Accomodated)**	**Project Increase [8]**
	FIN	**EPN [2]**								
1	NGFUG	NGFUG	TBD	NA	NA	738	NA	NA	NA	738
2	CT-1A	CT-1A	TBD	NA	NA	270,365	NA	NA	NA	270,365
3	CT-2A	CT-2A	TBD	NA	NA	270,365	NA	NA	NA	270,365
4	CT-3A	CT-3A	TBD	NA	NA	270,365	NA	NA	NA	270,365
5	CT-4A	CT-4A	TBD	NA	NA	270,365	NA	NA	NA	270,365
6	CT-5A	CT-5A	TBD	NA	NA	270,365	NA	NA	NA	270,365
7	CT-6A	CT-6A	TBD	NA	NA	270,365	NA	NA	NA	270,365
8	CT-7A	CT-7A	TBD	NA	NA	270,365	NA	NA	NA	270,365
9	CT-8A	CT-8A	TBD	NA	NA	270,365	NA	NA	NA	270,365
10	CT-9A	CT-9A	TBD	NA	NA	270,365	NA	NA	NA	270,365
11	CT-10A	CT-10A	TBD	NA	NA	270,365	NA	NA	NA	270,365
12	CT-11A	CT-11A	TBD	NA	NA	270,365	NA	NA	NA	270,365
13	CT-12A	CT-12A	TBD	NA	NA	270,365	NA	NA	NA	270,365
14	CT-13A	CT-13A	TBD	NA	NA	270,365	NA	NA	NA	270,365
15	CT-14A	CT-14A	TBD	NA	NA	270,365	NA	NA	NA	270,365
16	CT-15A	CT-15A	TBD	NA	NA	270,365	NA	NA	NA	270,365
17	CT-16A	CT-16A	TBD	NA	NA	270,365	NA	NA	NA	270,365
18	CT-17A	CT-17A	TBD	NA	NA	270,365	NA	NA	NA	270,365
19	CT-18A	CT-18A	TBD	NA	NA	270,365	NA	NA	NA	270,365
20	CT-19A	CT-19A	TBD	NA	NA	270,365	NA	NA	NA	270,365

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**CO2 Equivalent**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
	Affected or Modified Facilities [2]		**Permit No.**	**Actual Emissions [3]**	**Baseline Emissions [4]**	**Proposed Emissions [5]**	**Projected Actual Emissions**	**Difference (B-A) [6]**	**Correction [7] (Could Have Accomodated)**	**Project Increase [8]**
	FIN	**EPN [2]**								
21	CT-20A	CT-20A	TBD	NA	NA	270,365	NA	NA	NA	270,365
22	CT-21A	CT-21A	TBD	NA	NA	270,365	NA	NA	NA	270,365
23	CT-1B	CT-1B	TBD	NA	NA	1,957,719	NA	NA	NA	1,957,719
24	CT-2B	CT-2B	TBD	NA	NA	1,957,719	NA	NA	NA	1,957,719
25	CT-3B	CT-3B	TBD	NA	NA	1,957,719	NA	NA	NA	1,957,719
26	CT-4B	CT-4B	TBD	NA	NA	1,957,719	NA	NA	NA	1,957,719
27	CT-5B	CT-5B	TBD	NA	NA	1,957,719	NA	NA	NA	1,957,719
28	CT-6B	CT-6B	TBD	NA	NA	1,957,719	NA	NA	NA	1,957,719
29	CT-7B	CT-7B	TBD	NA	NA	1,957,719	NA	NA	NA	1,957,719
30	CT-8B	CT-8B	TBD	NA	NA	1,957,719	NA	NA	NA	1,957,719
31	CT-9B	CT-9B	TBD	NA	NA	1,957,719	NA	NA	NA	1,957,719
32	CT-10B	CT-10B	TBD	NA	NA	1,957,719	NA	NA	NA	1,957,719
33	CT-11B	CT-11B	TBD	NA	NA	1,957,719	NA	NA	NA	1,957,719
34	CT-12B	CT-12B	TBD	NA	NA	1,957,719	NA	NA	NA	1,957,719
35	CT-13B	CT-13B	TBD	NA	NA	1,957,719	NA	NA	NA	1,957,719
36	CT-14B	CT-14B	TBD	NA	NA	1,957,719	NA	NA	NA	1,957,719
37	DPHEAT1	DPHEAT1	TBD	NA	NA	4,513	NA	NA	NA	4,513
38	DPHEAT2	DPHEAT2	TBD	NA	NA	4,513	NA	NA	NA	4,513
39	DPHEAT3	DPHEAT3	TBD	NA	NA	4,513	NA	NA	NA	4,513
40	DPHEAT4	DPHEAT4	TBD	NA	NA	4,513	NA	NA	NA	4,513

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**CO2 Equivalent**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

						A	B			
	Affected or Modified Facilities [2]		**Permit No.**	**Actual Emissions [3]**	**Baseline Emissions [4]**	**Proposed Emissions [5]**	**Projected Actual Emissions**	**Difference (B-A) [6]**	**Correction [7] (Could Have Accomodated)**	**Project Increase [8]**
	FIN	**EPN [2]**								
41	DPHEAT5	DPHEAT5	TBD	NA	NA	4,513	NA	NA	NA	4,513
42	DPHEAT6	DPHEAT6	TBD	NA	NA	5,693	NA	NA	NA	5,693
43	DPHEAT7	DPHEAT7	TBD	NA	NA	5,693	NA	NA	NA	5,693
44	DPHEAT8	DPHEAT8	TBD	NA	NA	5,693	NA	NA	NA	5,693
45	DPHEAT9	DPHEAT9	TBD	NA	NA	5,693	NA	NA	NA	5,693
46	DPHEAT10	DPHEAT10	TBD	NA	NA	5,693	NA	NA	NA	5,693
47	DPHEAT11	DPHEAT11	TBD	NA	NA	5,693	NA	NA	NA	5,693
48	DPHEAT12	DPHEAT12	TBD	NA	NA	5,693	NA	NA	NA	5,693
49	DPHEAT13	DPHEAT13	TBD	NA	NA	5,693	NA	NA	NA	5,693
50	DPHEAT14	DPHEAT14	TBD	NA	NA	5,693	NA	NA	NA	5,693
51	DPHEAT15	DPHEAT15	TBD	NA	NA	5,693	NA	NA	NA	5,693
52	DPHEAT16	DPHEAT16	TBD	NA	NA	5,693	NA	NA	NA	5,693
53	DPHEAT17	DPHEAT17	TBD	NA	NA	5,693	NA	NA	NA	5,693
54	DPHEAT18	DPHEAT18	TBD	NA	NA	5,693	NA	NA	NA	5,693
55	DPHEAT19	DPHEAT19	TBD	NA	NA	5,693	NA	NA	NA	5,693
56	FPUMP1	FPUMP1	TBD	NA	NA	6	NA	NA	NA	6
57	FPUMP2	FPUMP2	TBD	NA	NA	6	NA	NA	NA	6
58	EGEN1	EGEN1	TBD	NA	NA	84	NA	NA	NA	84
59	EGEN2	EGEN2	TBD	NA	NA	84	NA	NA	NA	84
60	EGEN3	EGEN3	TBD	NA	NA	84	NA	NA	NA	84

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**CO2 Equivalent**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
	Affected or Modified Facilities [2]		**Permit No.**	**Actual Emissions [3]**	**Baseline Emissions [4]**	**Proposed Emissions [5]**	**Projected Actual Emissions**	**Difference (B-A) [6]**	**Correction [7] (Could Have Accomodated)**	**Project Increase [8]**
	FIN	**EPN [2]**								
61	EGEN4	EGEN4	TBD	NA	NA	84	NA	NA	NA	84
62	EGEN5	EGEN5	TBD	NA	NA	84	NA	NA	NA	84
63	EGEN6	EGEN6	TBD	NA	NA	84	NA	NA	NA	84
64	EGEN7	EGEN7	TBD	NA	NA	84	NA	NA	NA	84
65	EGEN8	EGEN8	TBD	NA	NA	84	NA	NA	NA	84
66	EGEN9	EGEN9	TBD	NA	NA	84	NA	NA	NA	84
67	EGEN10	EGEN10	TBD	NA	NA	84	NA	NA	NA	84
68	EGEN11	EGEN11	TBD	NA	NA	84	NA	NA	NA	84
69	EGEN12	EGEN12	TBD	NA	NA	84	NA	NA	NA	84
70	EGEN13	EGEN13	TBD	NA	NA	84	NA	NA	NA	84
71	EGEN14	EGEN14	TBD	NA	NA	84	NA	NA	NA	84
72	EGEN15	EGEN15	TBD	NA	NA	84	NA	NA	NA	84
73	ENGINE-1	ENGINE-1	TBD	NA	NA	3,760	NA	NA	NA	3,760
74	ENGINE-2	ENGINE-2	TBD	NA	NA	3,760	NA	NA	NA	3,760
75	MSSFUG	MSSFUG	TBD	NA	NA	119	NA	NA	NA	119
76	FUG-SF6	FUG-SF6	TBD	NA	NA	14,641	NA	NA	NA	14,641
Summary of Contemporaneous Changes								**Total**	**0.00**	**33,212,285**

TABLE 2F
PROJECT EMISSION INCREASE

Pollutant [1]:	**CO2 Equivalent**	**Permit:**	**TBD**
Baseline Period:	**NA**	**to**	**NA**

					A	B				
Affected or Modified Facilities [2]			**Permit No.**	**Actual Emissions [3]**	**Baseline Emissions [4]**	**Proposed Emissions [5]**	**Projected Actual Emissions**	**Difference (B-A) [6]**	**Correction [7] (Could Have Accomodated)**	**Project Increase [8]**
	FIN	**EPN [2]**								
Explanation (Table 2F Supplement):										

[1] Individual Table 2F's should be used to summarize the project emission increase for each criteria pollutant.

[2] Emission Point Number as designated in NSR Permit or Emissions Inventory.

[3] All records and calculations for these values must be available upon request.

[4] Correct actual emissions for currently applicable rule or permit requirements, and periods of non-compliance. These corrections, as well as any MSS previously demonstrated under 30 TAC 101, should be explained in the Table 2F supplement.

[5] If projected actual emission is used it must be noted in the next column and the basis for the projection identified in the Table 2F supplement.

[6] Proposed Emissions (column B) minus Baseline Emissions (column A).

[7] Correction made to emission increase for what portion could have been accommodated during the baseline period. The justification and basis for this estimate must be provided in the Table 2F supplement.

[8] Obtained by subtracting the correction from the difference. Must be a positive number.

[9] Sum all values for this page.

Summary Sheet

This worksheet displays the total emission rates for all tabs. It should be reviewed after completing the necessary number of calculation tabs. Emissions from compounds considered inert or not considered contaminants are set to zero.

Calculation Sheet Name	EPN		Total Emission Rate (hourly lbs/hr) (excluding GHG / Inert / Not a Contaminant)	Total Emission Rate (annual, tpy) (excluding GHG / Inert / Not a Contaminant)	Total VOC Emission Rate (hourly, lbs/hr)	Total VOC Emission Rate (annual, tpy)	Total Inorganic Emission Rate (hourly, lbs/hr)	Total Inorganic Emission Rate (annual, tpy)	Total Exempt Solvent Emission Rate (hourly, lbs/hr)	Total Exempt Solvent Emission Rate (annual, tpy)	Total GHG Emission Rate (tpy, mass basis)	Total GHG Emission Rate (tpy, CO_2e)
Fug (1)	NH3FUG		0.02	0.07	0.00	0.00	0.02	0.07	0.00	0.00	0.00	0.00
Fug (2)	NGFUG		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	26.36	737.91
Fug (3)		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fug (4)		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fug (5)		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fug (6)		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fug (7)		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fug (8)		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fug (9)		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fug (10)		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fug (11)		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fug (12)		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fug (13)		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fug (14)		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fug (15)		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fug (16)		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fug (17)		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fug (18)		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fug (19)		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fug (20)		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fug (21)		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fug (22)		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fug (23)		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fug (24)		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fug (25)		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total			**0.02**	**0.07**	**0.00**	**0.00**	**0.02**	**0.07**	**0.00**	**0.00**	**26.36**	**737.91**

I. General Information	
Company name	Pacifico GW LLC
Permit number	TBD
Source name	SCR Delivery System Fugitives
Emission Point Number (EPN)	NH3FUG
Preparation date	8/4/2025
I acknowledge that I am submitting an authorized TCEQ application workbook and any necessary attachments. Except for inputting the requested data and adjusting row height and column width, I have not changed the TCEQ application workbook in any way, including but not limited to changing formulas, formatting, content, or protections.	**Yes**

II. Industry, Pollutant Type and Emission Factors	
Industry Type (select one before continuing, do not leave blank)	SOCMI w/o Ethylene

III. Control Efficiencies	
Instrument Monitoring LDAR Program (select one, do not leave blank, select None if not applicable)	None
Connector Monitoring LDAR Program (select one, do not leave blank, select None if not applicable)	None
Physical Inspection LDAR Program (select one, do not leave blank, select None if not applicable)	28AVO
Are your facilities subject to fugitive emission monitoring under 30 TAC §§115.324(1)(C) and 354(1)(A) or are you applying reduction credit for process drains?	No
If yes, please select the appropriate control efficiency:	
If yes, provide justification for the selected reduction credit. Note: Facilities subject to fugitive emission monitoring under 30 TAC §§115.324(1)(C) and 354(1)(A) are required to monitor process drains on an annual basis. A 75% reduction credit may be applied for annual monitoring of process drains at a leak threshold of 500 ppmv provided the drain is designed in such a manner that repairs to leaking drains can be achieved. For example, flushing a water seal on a leaking process drain would constitute repair, so a 75% reduction credit may be applied. Similarly, a 95% reduction credit can be applied for quarterly monitoring of drains if repairs to the leaking drains can be completed.	

IV. Emission Rates

Component	Service	Count	Industry Emission Factor	Instrument Monitoring LDAR Control Efficiency	Connector Monitoring LDAR Control Efficiency
Valves	Gas/Vapor	56	0.0089	0	0
Valves	Light Liquid	148	0.0035	0	0
Valves-DTM [3]	Gas/Vapor		0.0089	0	0
Valves-DTM [3]	Light Liquid		0.0035	0	0
Valves-DTM(AM) [4]	Gas/Vapor		0.0089	0	0
Valves-DTM(AM) [4]	Light Liquid		0.0035	0	0
Valves	Heavy Liquid		0.0007	0	0
Valves	Ultra Heavy Liquid		0.0007	0	0
Valves (controlled)	All		0	1	1
Pumps	Light Liquid	6	0.0386	0	0
Pumps	Heavy Liquid		0.0161	0	0
Pumps	Ultra Heavy Liquid		0.0161	0	0
Pumps (controlled)	All		0	1	1
Flanges/Connectors	Gas/Vapor	248	0.0029	0	0
Flanges/Connectors	Light Liquid	784	0.0005	0	0
Flanges/Connectors-DTM [3]	Gas/Vapor		0.0029	0	0
Flanges/Connectors-DTM [3]	Light Liquid		0.0005	0	0
Flanges/Connectors-DTM(AM) [4]	Gas/Vapor		0.0029	0	0
Flanges/Connectors-DTM(AM) [4]	Light Liquid		0.0005	0	0
Flanges/Connectors	Heavy Liquid		0.00007	0	0
Flanges/Connectors	Ultra Heavy Liquid		0.00007	0	0
Flanges/Connectors (controlled)	All		0	1	1
Compressors	Gas/Vapor		0.5027	0	0
Compressors (controlled)	All		0	1	1
Relief Valves	Gas/Vapor		0.2293	0	0
Relief Valves	Liquid		0.0035	0	0
Relief Valves (controlled)	All		0	1	1
Open-Ended Lines	All		0.004	0	0
Open-Ended Lines (controlled)	All		0	1	1
Sampling Connections (hourly) [1]	All		0.033	0	0
Sampling Connections (annual) [2]	All		0.033	0	0
Process Drains [5]	All		0.07	0	0
Agitators	All		0.0386	0	0
-	-		-	-	-
-	-		-	-	-
-	-		-	-	-
-	-		-	-	-
-	-		-	-	-
-	-		-	-	-
-	-		-	-	-
-	-		-	-	-
-	-		-	-	-
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-	-		-	-	-
-	-		-	-	-
-	-		-	-	-
-	-		-	-	-
-	-		-	-	-
Total Count, Total Emission Rates (lbs/hr and tpy)		1242			

Physical Inspection LDAR Control Efficiency	Controlled lb/hr	Controlled tpy
0.97	0.01	0.07
0.97	0.02	0.07
0	0.00	0.00
0	0.00	0.00
0.75	0.00	0.00
0.75	0.00	0.00
0.97	0.00	0.00
0.97	0.00	0.00
1	0.00	0.00
0.93	0.02	0.07
0.93	0.00	0.00
0.93	0.00	0.00
1	0.00	0.00
0.97	0.02	0.09
0.97	0.01	0.05
0	0.00	0.00
0	0.00	0.00
0.75	0.00	0.00
0.75	0.00	0.00
0.97	0.00	0.00
0.97	0.00	0.00
1	0.00	0.00
0.95	0.00	0.00
1	0.00	0.00
0.97	0.00	0.00
0.97	0.00	0.00
1	0.00	0.00
0	0.00	0.00
1	0.00	0.00
0	0.00	N/A
0	N/A	0.00
0	0.00	0.00
0.93	0.00	0.00
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
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-	-	-
-	-	-
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-	-	-
	0.08	0.35

V. Emission Rates - Unique Components	
Are you proposing any components not included in Section IV above?	No
If yes, provide justification for the factors used for these unique components.	

Component	Service	Count	Proposed Emission Factor	Proposed Control Efficiency	Controlled lb/hr
					0.00
					0.00
					0.00
					0.00
					0.00
					0.00
					0.00
					0.00
					0.00
					0.00
					0.00
					0.00
					0.00
					0.00
					0.00
					0.00
					0.00
					0.00
					0.00
					0.00
					0.00
Total Component Count, Total Emission Rate (lbs/hr and tpy)		0			0.00

Controlled tpy
0.00
0.00
0.00
0.00
0.00
0.00
0.00
0.00
0.00
0.00
0.00
0.00
0.00
0.00
0.00
0.00
0.00
0.00
0.00
0.00
0.00
0.00

VI. Speciation (non-GHG)

CAS #	Chemical Constituent	Other Species?	VOC?	Inorganic?	VOC-Exempt Solvent?
7664-41-7	ammonia		No	Yes	No
N/A	Other (Please Specify):	Water	No	Yes	No
	No CAS Number Entered		No	No	No
	No CAS Number Entered		No	No	No
	No CAS Number Entered		No	No	No
	No CAS Number Entered		No	No	No
	No CAS Number Entered		No	No	No
	No CAS Number Entered		No	No	No
	No CAS Number Entered		No	No	No
	No CAS Number Entered		No	No	No
	No CAS Number Entered		No	No	No
	No CAS Number Entered		No	No	No
	No CAS Number Entered		No	No	No
	No CAS Number Entered		No	No	No
	No CAS Number Entered		No	No	No
	No CAS Number Entered		No	No	No
	No CAS Number Entered		No	No	No
	No CAS Number Entered		No	No	No
	No CAS Number Entered		No	No	No
	No CAS Number Entered		No	No	No
	No CAS Number Entered		No	No	No
	No CAS Number Entered		No	No	No
	No CAS Number Entered		No	No	No
	No CAS Number Entered		No	No	No
	No CAS Number Entered		No	No	No
	No CAS Number Entered		No	No	No
	No CAS Number Entered		No	No	No
	No CAS Number Entered		No	No	No
	No CAS Number Entered		No	No	No
	No CAS Number Entered		No	No	No
	No CAS Number Entered		No	No	No
	No CAS Number Entered		No	No	No
	No CAS Number Entered		No	No	No
	No CAS Number Entered		No	No	No
	No CAS Number Entered		No	No	No
	No CAS Number Entered		No	No	No
	No CAS Number Entered		No	No	No
	No CAS Number Entered		No	No	No
	No CAS Number Entered		No	No	No
	No CAS Number Entered		No	No	No
	No CAS Number Entered		No	No	No
	No CAS Number Entered		No	No	No
	No CAS Number Entered		No	No	No
	No CAS Number Entered		No	No	No
	No CAS Number Entered		No	No	No
	No CAS Number Entered		No	No	No
	No CAS Number Entered		No	No	No
	No CAS Number Entered		No	No	No
	No CAS Number Entered		No	No	No
	No CAS Number Entered		No	No	No
Total Weight Percent, Hourly Emissions and Annual Emissions (excluding Inert / Not a Contaminant)					

Inert / Not a Contaminant?	Weight Percent	lb/hr	tpy
No	19.00%	0.0152076	0.066609288
Yes	81.00%	0	0
No		0	0
No		0	0
No		0	0
No		0	0
No		0	0
No		0	0
No		0	0
No		0	0
No		0	0
No		0	0
No		0	0
No		0	0
No		0	0
No		0	0
No		0	0
No		0	0
No		0	0
No		0	0
No		0	0
No		0	0
No		0	0
No		0	0
No		0	0
No		0	0
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No		0	0
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No		0	0
No		0	0
No		0	0
No		0	0
No		0	0
No		0	0
No		0	0
No		0	0
No		0	0
No		0	0
No		0	0
No		0	0
No		0	0
No		0	0
No		0	0
No		0	0
	100.00%	0.02	0.07

VII. Speciation (GHG)					
CAS #	**Chemical Constituent Name**	**Global Warming Potential (GWP)**	**Weight Percent**	**Mass Emissions (U.S. tons per year)**	**CO_2e Emissions (U.S. tons per year)**
	No CAS Number Entered	No CAS Number Entered		0	-
	No CAS Number Entered	No CAS Number Entered		0	-
	No CAS Number Entered	No CAS Number Entered		0	-
	No CAS Number Entered	No CAS Number Entered		0	-
	No CAS Number Entered	No CAS Number Entered		0	-
	No CAS Number Entered	No CAS Number Entered		0	-
	No CAS Number Entered	No CAS Number Entered		0	-
	No CAS Number Entered	No CAS Number Entered		0	-
	No CAS Number Entered	No CAS Number Entered		0	-
	No CAS Number Entered	No CAS Number Entered		0	-
	No CAS Number Entered	No CAS Number Entered		0	-
	No CAS Number Entered	No CAS Number Entered		0	-
	No CAS Number Entered	No CAS Number Entered		0	-
	No CAS Number Entered	No CAS Number Entered		0	-
	No CAS Number Entered	No CAS Number Entered		0	-
	No CAS Number Entered	No CAS Number Entered		0	-
	No CAS Number Entered	No CAS Number Entered		0	-
	No CAS Number Entered	No CAS Number Entered		0	-
	No CAS Number Entered	No CAS Number Entered		0	-
Total GHG Emissions (Mass Basis and Carbon dioxide-equivalent Basis)				0	0

VIII - Emission Summary for Worksheet (excludes Inert / Not a Contaminant)	
Total Emissions (excludes GHG / Inert / Not a Contaminant) (lbs/hr)	0.02
Total Emissions (excludes GHG / Inert / Not a Contaminant) (tpy)	0.07
Total Hourly VOC Emissions (lbs/hr)	0.00
Total Annual VOC Emissions (tpy)	0.00
Total Hourly Inorganic Emissions (lbs/hr)	0.02
Total Annual Inorganic Emissions (tpy)	0.07
Total Hourly Exempt Solvent Emissions (lbs/hr)	0.00
Total Annual Exempt Solvent Emissions (tpy)	0.00
Total GHG TPY (mass basis)	0.00
Total GHG TPY (CO_2e)	0.00

I. General Information	
Company name	Pacifico GW LLC
Permit number	TBD
Source name	Natural Gas Piping Fugitives
Emission Point Number (EPN)	NGFUG
Preparation date	8/4/2025
I acknowledge that I am submitting an authorized TCEQ application workbook and any necessary attachments. Except for inputting the requested data and adjusting row height and column width, I have not changed the TCEQ application workbook in any way, including but not limited to changing formulas, formatting, content, or protections.	**Yes**

II. Industry, Pollutant Type and Emission Factors	
Industry Type (select one before continuing, do not leave blank)	Oil and Gas Production Operation

III. Control Efficiencies	
Instrument Monitoring LDAR Program (select one, do not leave blank, select None if not applicable)	None
Connector Monitoring LDAR Program (select one, do not leave blank, select None if not applicable)	None
Physical Inspection LDAR Program (select one, do not leave blank, select None if not applicable)	None
Are your facilities subject to fugitive emission monitoring under 30 TAC §§115.324(1)(C) and 354(1)(A) or are you applying reduction credit for process drains?	No
If yes, please select the appropriate control efficiency:	
If yes, provide justification for the selected reduction credit. Note: Facilities subject to fugitive emission monitoring under 30 TAC §§115.324(1)(C) and 354(1)(A) are required to monitor process drains on an annual basis. A 75% reduction credit may be applied for annual monitoring of process drains at a leak threshold of 500 ppmv provided the drain is designed in such a manner that repairs to leaking drains can be achieved. For example, flushing a water seal on a leaking process drain would constitute repair, so a 75% reduction credit may be applied. Similarly, a 95% reduction credit can be applied for quarterly monitoring of drains if repairs to the leaking drains can be completed.	

IV. Emission Rates

Component	Service	Count	Industry Emission Factor	Instrument Monitoring LDAR Control Efficiency	Connector Monitoring LDAR Control Efficiency
Valves	Gas	464	0.00992	0	0
Valves-DTM [3]	Gas [3]		0.00992	0	0
Valves-DTM(AM) [4]	Gas [3] [4]		0.00992	0	0
Valves	Heavy Oil <20° API		0.0000185	0	0
Valves	Light Oil > 20°	60	0.0055	0	0
Valves-DTM [3]	Light Oil > 20° [3][4]		0.0055	0	0
Valves-DTM(AM) [4]	Light Oil > 20° [3][4]		0.0055	0	0
Valves	Water/Light Oil		0.000216	0	0
Valves (controlled)	All		0	1	1
Pumps	Gas		0.00529	0	0
Pumps	Heavy Oil <20°API		0.00113	0	0
Pumps	Light Oil >20°		0.02866	0	0
Pumps	Water/Light Oil		0.000052	0	0
Pumps (controlled)	All		0	1	1
Flanges	Gas	1268	0.00086	0	0
Flanges-DTM [3]	Gas [3]		0.00086	0	0
Flanges-DTM(AM) [4]	Gas [3] [4]		0.00086	0	0
Flanges	Heavy Oil <20°API		0.00000086	0	0
Flanges	Light Oil >20°		0.000243	0	0
Flanges-DTM [3]	Light Oil > 20° [3][4]		0.000243	0	0
Flanges-DTM(AM) [4]	Light Oil > 20° [3][4]		0.000243	0	0
Flanges	Water/Light Oil		0.000006	0	0
Flanges (controlled)	All		0	1	1
Compressors	Gas		0.0194	0	0
Compressors	Heavy Oil <20°API		0.0000683	0	0
Compressors	Light Oil >20°		0.0165	0	0
Compressors	Water/Light Oil		0.0309	0	0
Compressors (controlled)	All		0	1	1
Relief Valves	Gas		0.0194	0	0
Relief Valves	Heavy Oil <20°API		0.0000683	0	0
Relief Valves	Light Oil >20°		0.0165	0	0
Relief Valves	Water/Light Oil		0.0309	0	0
Relief Valves (controlled)	All		0	1	1
Open-Ended Lines	Gas		0.00441	0	0
Open-Ended Lines	Heavy Oil <20°API		0.000309	0	0
Open-Ended Lines	Light Oil >20°		0.00309	0	0
Open-Ended Lines	Water/Light Oil		0.00055	0	0
Open-Ended Lines (controlled)	All		0	1	1
Sampling Connections (hourly) [1]	Gas		0.033	0	0
Sampling Connections (hourly) [1]	Heavy Oil <20°API		0.033	0	0
Sampling Connections (hourly) [1]	Light Oil >20°		0.033	0	0
Sampling Connections (hourly) [1]	Water/Light Oil		0.033	0	0
Sampling Connections (annual) [2]	Gas		0.033	0	0
Sampling Connections (annual) [2]	Heavy Oil <20°API		0.033	0	0
Sampling Connections (annual) [2]	Light Oil >20°		0.033	0	0
Sampling Connections (annual) [2]	Water/Light Oil		0.033	0	0
Connectors	Gas		0.00044	0	0
Connectors-DTM [3]	Gas [3]		0.00044	0	0
Connectors-DTM (AM) [4]	Gas [3] [4]		0.00044	0.75	0.75
Connectors	Heavy Oil <20°API		0.0000165	0	0
Connectors	Light Oil >20°	240	0.000463	0	0
Connectors-DTM [3]	Light Oil > 20° [3][4]		0.000463	0	0
Connectors-DTM (AM) [4]	Light Oil > 20° [3][4]		0.000463	0.75	0.75
Connectors	Water/Light Oil		0.000243	0	0
Other [10]	Gas		0.0194	0	0
Other [10]	Heavy Oil <20°API		0.0000683	0	0
Other [10]	Light Oil >20°		0.0165	0	0
Other [10]	Water/Light Oil		0.0309	0	0
Process Drains [5]	Gas		0.0194	0	0
Process Drains [5]	Heavy Oil <20°API		0.0000683	0	0
Process Drains [5]	Light Oil >20°		0.0165	0	0
Process Drains [5]	Water/Light Oil		0.0309	0	0
-	-		-	-	-
-	-		-	-	-
-	-		-	-	-
-	-		-	-	-
-	-		-	-	-
-	-		-	-	-
-	-		-	-	-
-	-		-	-	-
-	-		-	-	-
-	-		-	-	-
-	-		-	-	-
-	-		-	-	-
-	-		-	-	-
Total Count, Total Emission Rates (lbs/hr and tpy)		2032			

Physical Inspection LDAR Control Efficiency	Controlled lb/hr	Controlled tpy
0	4.60	20.16
0	0.00	0.00
0	0.00	0.00
0	0.00	0.00
0	0.33	1.45
0	0.00	0.00
0	0.00	0.00
0	0.00	0.00
1	0.00	0.00
0	0.00	0.00
0	0.00	0.00
0	0.00	0.00
0	0.00	0.00
1	0.00	0.00
0	1.09	4.78
0	0.00	0.00
0	0.00	0.00
0	0.00	0.00
0	0.00	0.00
0	0.00	0.00
0	0.00	0.00
0	0.00	0.00
1	0.00	0.00
0	0.00	0.00
0	0.00	0.00
0	0.00	0.00
0	0.00	0.00
1	0.00	0.00
0	0.00	0.00
0	0.00	0.00
0	0.00	0.00
0	0.00	0.00
1	0.00	0.00
0	0.00	0.00
0	0.00	0.00
0	0.00	0.00
0	0.00	0.00
1	0.00	0.00
0	0.00	N/A
0	0.00	N/A
0	0.00	N/A
0	0.00	N/A
0	N/A	0.00
0	N/A	0.00
0	N/A	0.00
0	N/A	0.00
0	0.00	0.00
0	0.00	0.00
0.75	0.00	0.00
0	0.00	0.00
0	0.11	0.49
0	0.00	0.00
0.75	0.00	0.00
0	0.00	0.00
0	0.00	0.00
0	0.00	0.00
0	0.00	0.00
0	0.00	0.00
0	0.00	0.00
0	0.00	0.00
0	0.00	0.00
-	-	-
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-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
	6.13	26.87

V. Emission Rates - Unique Components	
Are you proposing any components not included in Section IV above?	No
If yes, provide justification for the factors used for these unique components.	

Component	Service	Count	Proposed Emission Factor	Proposed Control Efficiency	Controlled lb/hr
					0.00
					0.00
					0.00
					0.00
					0.00
					0.00
					0.00
					0.00
					0.00
					0.00
					0.00
					0.00
					0.00
					0.00
					0.00
					0.00
					0.00
					0.00
					0.00
					0.00
					0.00
					0.00
Total Component Count, Total Emission Rate (lbs/hr and tpy)		0			0.00

Controlled tpy
0.00
0.00
0.00
0.00
0.00
0.00
0.00
0.00
0.00
0.00
0.00
0.00
0.00
0.00
0.00
0.00
0.00
0.00
0.00
0.00
0.00
0.00

VI. Speciation (non-GHG)					
CAS #	**Chemical Constituent**	**Other Species?**	**VOC?**	**Inorganic?**	**VOC-Exempt Solvent?**
74-84-0	ethane		No	No	No
75-08-1	ethyl mercaptan		Yes	No	No
7783-06-4	hydrogen sulfide		No	Yes	No
75-28-5	isobutane		Yes	No	No
106-97-8	n-butane		Yes	No	No
74-98-6	propane		Yes	No	No
N/A	Other (Please Specify):	Nitrogen	No	Yes	No
	No CAS Number Entered		No	No	No
	No CAS Number Entered		No	No	No
	No CAS Number Entered		No	No	No
	No CAS Number Entered		No	No	No
	No CAS Number Entered		No	No	No
	No CAS Number Entered		No	No	No
	No CAS Number Entered		No	No	No
	No CAS Number Entered		No	No	No
	No CAS Number Entered		No	No	No
	No CAS Number Entered		No	No	No
	No CAS Number Entered		No	No	No
	No CAS Number Entered		No	No	No
	No CAS Number Entered		No	No	No
	No CAS Number Entered		No	No	No
	No CAS Number Entered		No	No	No
	No CAS Number Entered		No	No	No
	No CAS Number Entered		No	No	No
	No CAS Number Entered		No	No	No
	No CAS Number Entered		No	No	No
	No CAS Number Entered		No	No	No
	No CAS Number Entered		No	No	No
	No CAS Number Entered		No	No	No
	No CAS Number Entered		No	No	No
	No CAS Number Entered		No	No	No
	No CAS Number Entered		No	No	No
	No CAS Number Entered		No	No	No
	No CAS Number Entered		No	No	No
	No CAS Number Entered		No	No	No
	No CAS Number Entered		No	No	No
	No CAS Number Entered		No	No	No
	No CAS Number Entered		No	No	No
	No CAS Number Entered		No	No	No
	No CAS Number Entered		No	No	No
	No CAS Number Entered		No	No	No
	No CAS Number Entered		No	No	No
	No CAS Number Entered		No	No	No
	No CAS Number Entered		No	No	No
	No CAS Number Entered		No	No	No
	No CAS Number Entered		No	No	No
	No CAS Number Entered		No	No	No
	No CAS Number Entered		No	No	No
	No CAS Number Entered		No	No	No
	No CAS Number Entered		No	No	No
Total Weight Percent, Hourly Emissions and Annual Emissions (excluding Inert / Not a Contaminant)					

Inert / Not a Contaminant?	Weight Percent	lb/hr	tpy
Yes	0.83%	0	0
No	0.00%	5.97514E-05	0.000261711
No	0.00%	4.97929E-05	0.000218093
No	0.00%	3.43297E-05	0.000150364
No	0.00%	3.43297E-05	0.000150364
No	0.02%	0.000927175	0.004061027
Yes	1.03%	0	0
No		0	0
No		0	0
No		0	0
No		0	0
No		0	0
No		0	0
No		0	0
No		0	0
No		0	0
No		0	0
No		0	0
No		0	0
No		0	0
No		0	0
No		0	0
No		0	0
No		0	0
No		0	0
No		0	0
No		0	0
No		0	0
No		0	0
No		0	0
No		0	0
No		0	0
No		0	0
No		0	0
No		0	0
No		0	0
No		0	0
No		0	0
No		0	0
No		0	0
No		0	0
No		0	0
No		0	0
No		0	0
No		0	0
No		0	0
No		0	0
No		0	0
No		0	0
No		0	0
	1.88%	0.00	0.00

VII. Speciation (GHG)					
CAS #	**Chemical Constituent Name**	**Global Warming Potential (GWP)**	**Weight Percent**	**Mass Emissions (U.S. tons per year)**	**CO_2e Emissions (U.S. tons per year)**
124-38-9	Carbon dioxide	1	0.04%	0.011019475	0.011019475
74-82-8	Methane	28	98.08%	26.35344685	737.8965118
	No CAS Number Entered	No CAS Number Entered		0	-
	No CAS Number Entered	No CAS Number Entered		0	-
	No CAS Number Entered	No CAS Number Entered		0	-
	No CAS Number Entered	No CAS Number Entered		0	-
	No CAS Number Entered	No CAS Number Entered		0	-
	No CAS Number Entered	No CAS Number Entered		0	-
	No CAS Number Entered	No CAS Number Entered		0	-
	No CAS Number Entered	No CAS Number Entered		0	-
	No CAS Number Entered	No CAS Number Entered		0	-
	No CAS Number Entered	No CAS Number Entered		0	-
	No CAS Number Entered	No CAS Number Entered		0	-
	No CAS Number Entered	No CAS Number Entered		0	-
	No CAS Number Entered	No CAS Number Entered		0	-
	No CAS Number Entered	No CAS Number Entered		0	-
	No CAS Number Entered	No CAS Number Entered		0	-
	No CAS Number Entered	No CAS Number Entered		0	-
	No CAS Number Entered	No CAS Number Entered		0	-
Total GHG Emissions (Mass Basis and Carbon dioxide-equivalent Basis)				26.36446633	737.9075313

VIII - Emission Summary for Worksheet (excludes Inert / Not a Contaminant)	
Total Emissions (excludes GHG / Inert / Not a Contaminant) (lbs/hr)	0.00
Total Emissions (excludes GHG / Inert / Not a Contaminant) (tpy)	0.00
Total Hourly VOC Emissions (lbs/hr)	0.00
Total Annual VOC Emissions (tpy)	0.00
Total Hourly Inorganic Emissions (lbs/hr)	0.00
Total Annual Inorganic Emissions (tpy)	0.00
Total Hourly Exempt Solvent Emissions (lbs/hr)	0.00
Total Annual Exempt Solvent Emissions (tpy)	0.00
Total GHG TPY (mass basis)	26.36
Total GHG TPY (CO_2e)	737.91

Appendix B
Emission Calculations

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Appendix B-1: Siemens SGT-800 Turbine Performance Data

Case		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Turbine		**Siemens 800**	**Siemens 800**	**Siemens 800**	**Siemens 800**	**Siemens 800**	**Siemens 800**	**Siemens 800**	**Siemens 800**	**Siemens 800**	**Siemens 800**	**Siemens 800**	**Siemens 800**	**Siemens 800**	**Siemens 800**	**Siemens 800**	**Siemens 800**	**Siemens 800**	**Siemens 800**	**Siemens 800**	**Siemens 800**	**Siemens 800**	**Siemens 800**	**Siemens 800**	**Siemens 800**
Load	**%**	100	100	100	90	90	90	80	80	80	70	70	70	60	60	60	50	50	50	100	100	100	100	100	90
Chiller		Chiller	Chiller	Chiller	Chiller	Chiller	Chiller	Chiller	Chiller	Chiller	Chiller	Chiller	Chiller	Chiller	Chiller	Chiller	Chiller	Chiller	Chiller	No	No	No	No	No	No
Ambient Temperature	**deg F**	66.4	100.8	114.8	66.4	100.8	114.8	66.4	100.8	114.8	66.4	100.8	114.8	66.4	100.8	114.8	66.4	100.8	114.8	1.6	25.4	66.4	100.8	114.8	1.6
Relative Humidity	**%**	46	16.4	16.4	46	16.4	16.4	46	16.4	16.4	46	16.4	16.4	46	16.4	16.4	46	16.4	16.4	90	90	46	16.4	16.4	90
Heat Rate	**Btu/kWh**	8,383	8,385	8,386	8,528	8,531	8,532	8,826	8,829	8,831	9,215	9,218	9,220	9,768	9,772	9,774	10,467	10,472	10,475	8,320	8,344	8,469	8,793	9,031	8,404
Gross Power Output	**MW**	57.78	57.70	57.67	52.00	51.93	51.90	46.22	46.16	46.13	40.44	40.39	40.37	34.67	34.62	34.60	28.89	28.85	28.83	63.36	60.35	54.28	46.77	42.61	57.02
Gross Heat Consumption	**MMBtu/hr**	484.34	483.84	483.58	443.45	443.03	442.82	407.96	407.57	407.39	372.66	372.32	372.16	338.60	338.31	338.17	302.38	302.13	302.01	527.14	503.54	459.70	411.26	384.83	479.22
Gross Efficiency	**%**	40.70	40.69	40.69	40.01	40.00	39.99	38.66	38.65	38.64	37.03	37.02	37.01	34.93	34.92	34.91	32.60	32.58	32.58	41.01	40.90	40.29	38.81	37.78	40.60
Exhaust Gas Flow	**Nft3/s**	3,841.72	3,838.27	3,836.63	3,581.02	3,577.63	3,577.36	3,255.62	3,252.29	3,252.05	2,935.59	2,933.68	2,933.46	2,641.12	2,640.61	2,639.05	2,442.53	2,440.70	2,440.52	4,091.52	3,952.78	3,701.07	3,400.39	3,187.34	3,782.83
Exhaust Molecular Weight	**lb/lb-mol**	28.33	28.34	28.34	28.34	28.35	28.35	28.33	28.34	28.34	28.33	28.33	28.34	28.32	28.33	28.33	28.34	28.35	28.35	28.42	28.39	28.34	28.34	28.28	28.43
Exhaust Temperature	**deg F**	1,085	1,085	1,085	1,079	1,079	1,079	1,111	1,111	1,111	1,149	1,150	1,150	1,193	1,193	1,193	1,193	1,193	1,193	1,067	1,077	1,095	1,122	1,146	1,056
Average Atmospheric Temperature	**deg Rankine**	524	524	524	524	524	524	524	524	524	524	524	524	524	524	524	524	524	524	524	524	524	524	524	524
Dilution Flow Rate	**Nft3/s**	1,148.68	1,147.65	1,147.16	1,043.39	1,042.40	1,042.33	1,081.13	1,080.03	1,079.95	1,116.79	1,119.79	1,119.71	1,152.62	1,152.40	1,151.72	1,065.95	1,065.16	1,065.08	1,129.66	1,141.65	1,153.71	1,176.80	1,200.40	991.49
SCR Temperature	**deg Rankine**	1,309.67	1,309.67	1,309.67	1,309.67	1,309.67	1,309.67	1,309.67	1,309.67	1,309.67	1,309.67	1,309.67	1,309.67	1,309.67	1,309.67	1,309.67	1,309.67	1,309.67	1,309.67	1,309.67	1,309.67	1,309.67	1,309.67	1,309.67	1,309.67
Total Flow	**Actual ft3/s**	13,293.00	13,281.07	13,275.39	12,318.13	12,306.46	12,305.54	11,551.90	11,540.08	11,539.23	10,794.40	10,797.30	10,796.51	10,105.45	10,103.50	10,097.54	9,345.61	9,338.63	9,337.92	13,907.75	13,570.12	12,931.77	12,192.35	11,687.71	12,717.46
Emission Rates (before SCR)																									
VOC	**ppm**	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
CO	**ppm**	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
NOX	**ppm**	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
PM	**lb/hr**	2.85	2.84	2.84	2.61	2.6	2.6	2.4	2.4	2.4	2.19	2.19	2.19	1.99	1.99	1.99	1.78	1.78	1.78	3.1	2.96	2.7	2.42	2.26	2.82

Worst-Case Parameters from all Turbine Cases

Parameter	Unit	Value
Turbine Firing Rate	MMBtu/hr	527.14
Gross Power Output	MW	63
VOC	ppmv	2
PM	lb/hr	3.10

The worst-case values for each parameter in this table were determined based on the maximum values among all 48 turbine cases provided by the vendor.

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Appendix B-1: Siemens SGT-800 Turbine Performance Data

Case		25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
Turbine		**Siemens 800**	**Siemens 800**	**Siemens 800**	**Siemens 800**	**Siemens 800**	**Siemens 800**	**Siemens 800**	**Siemens 800**	**Siemens 800**	**Siemens 800**	**Siemens 800**	**Siemens 800**	**Siemens 800**	**Siemens 800**	**Siemens 800**	**Siemens 800**	**Siemens 800**	**Siemens 800**	**Siemens 800**	**Siemens 800**	**Siemens 800**	**Siemens 800**	**Siemens 800**	**Siemens 800**
Load	**%**	90	90	90	90	80	80	80	80	80	70	70	70	70	70	60	60	60	60	60	50	50	50	50	50
Chiller		No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No
Ambient Temperature	**deg F**	25.4	66.4	100.8	114.8	1.6	25.4	66.4	100.8	114.8	1.6	25.4	66.4	100.8	114.8	1.6	25.4	66.4	100.8	114.8	1.6	25.4	66.4	100.8	114.8
Relative Humidity	**%**	90	46	16.4	16.4	90	90	46	16.4	16.4	90	90	46	16.4	16.4	90	90	46	16.4	16.4	90	90	46	16.4	16.4
Heat Rate	**Btu/kWh**	8,460	8,636	8,989	9,258	8,670	8,745	8,951	9,334	9,652	9,036	9,122	9,353	9,825	10,149	9,555	9,651	9,925	10,395	10,751	10,273	10,358	10,645	11,184	11,605
Gross Power Output	**MW**	54.32	48.85	42.10	38.35	50.69	48.28	43.42	37.42	34.09	44.35	42.24	38.00	32.74	29.83	38.01	36.21	32.57	28.06	25.57	31.68	30.18	27.14	23.39	21.31
Gross Heat Consumption	**MMBtu/hr**	459.49	421.89	378.43	355.02	439.44	422.20	388.70	349.27	329.03	400.76	385.35	355.37	321.68	302.73	363.22	349.45	323.22	291.71	274.86	325.43	312.54	288.90	261.56	247.25
Gross Efficiency	**%**	40.33	39.51	37.96	36.86	39.36	39.02	38.12	36.56	35.35	37.76	37.41	36.48	34.73	33.62	35.71	35.36	34.38	32.83	31.74	33.22	32.94	32.05	30.51	29.40
Exhaust Gas Flow	**Nft3/s**	3,670.97	3,462.17	3,186.14	2,998.50	3,427.38	3,332.76	3,149.10	2,892.22	2,735.16	3,092.02	3,005.28	2,840.02	2,631.94	2,544.09	2,783.41	2,695.26	2,585.87	2,454.15	2,374.26	2,525.38	2,477.03	2,391.52	2,275.01	2,207.12
Exhaust Molecular Weight	**lb/lb-mol**	28.40	28.35	28.35	28.29	28.42	28.39	28.34	28.34	28.28	28.41	28.39	28.33	28.33	28.28	28.41	28.38	28.33	28.35	28.30	28.42	28.40	28.35	28.36	28.31
Exhaust Temperature	**deg F**	1,069	1,089	1,117	1,141	1,089	1,101	1,123	1,153	1,178	1,125	1,139	1,161	1,193	1,193	1,166	1,184	1,193	1,193	1,193	1,193	1,193	1,193	1,193	1,193
Average Atmospheric Temperature	**deg Rankine**	524	524	524	524	524	524	524	524	524	524	524	524	524	524	524	524	524	524	524	524	524	524	524	524
Dilution Flow Rate	**Nft3/s**	1,022.89	1,052.81	1,082.38	1,110.20	1,042.23	1,064.35	1,093.84	1,115.01	1,141.46	1,081.88	1,105.06	1,123.80	1,148.62	1,110.28	1,119.10	1,145.39	1,128.51	1,071.02	1,036.16	1,102.11	1,081.01	1,043.69	992.85	963.22
SCR Temperature	**deg Rankine**	1,309.67	1,309.67	1,309.67	1,309.67	1,309.67	1,309.67	1,309.67	1,309.67	1,309.67	1,309.67	1,309.67	1,309.67	1,309.67	1,309.67	1,309.67	1,309.67	1,309.67	1,309.67	1,309.67	1,309.67	1,309.67	1,309.67	1,309.67	1,309.67
Total Flow	**Actual ft3/s**	12,503.12	12,026.63	11,370.13	10,944.41	11,905.79	11,712.66	11,302.01	10,674.12	10,326.22	11,118.09	10,948.78	10,558.50	10,070.33	9,734.21	10,395.20	10,230.41	9,894.05	9,390.06	9,084.39	9,662.61	9,477.61	9,150.45	8,704.64	8,444.88

Emission Rates (before SCR)																									
VOC	**ppm**	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2.02	2
CO	**ppm**	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
NOX	**ppm**	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
PM	**lb/hr**	2.7	2.48	2.22	2.09	2.58	2.48	2.29	2.05	1.93	2.36	2.27	2.09	1.89	1.78	2.14	2.05	1.9	1.71	1.62	1.91	1.84	1.7	1.54	1.45

Worst-Case Parameters from all Turbin

Parameter	Unit
Turbine Firing Rate	MMBtu/hr
Gross Power Output	MW
VOC	ppmv
PM	lb/hr

The worst-case values for each parameter were determined based on the maximum va among all 48 turbine cases provided by the

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Appendix B-2: Siemens SGT-800 Gas Turbine Emissions

I. Basis

Emissions from the Siemens SGT-800 Turbine (CT-1A through CT-21A) were calculated using a combination of vendor specs and BACT. Annual emissions are calculated assuming 8760 hours of operation annually. An SCR will be installed to control NOx emissions.

An SCR will be installed to control NOX emissions. Ammonia slip will be limited to 10 ppm on an three-hour basis and 5 ppm on an annual basis. Exit formaldehyde concentration was calculated at 91 ppb at 15% O2 per 40 CFR 63 Subpart YYYY.

Sulfuric Acid (H2SO4) emissions are calculated using an vendor-provided estimate of a 10% molar conversion ratio of SO2 to SO3- in the SCR, based on vendor feedback, and conservatively assuming each SO3- molecule forms one H2SO4 molecule. Additionally, it was assumed each SO3- molecule may form 1 ammonium sulfate (NH4)2SO4 molecule, which is a particulate. This was added to the PM emission factor from the vendor for a conservative estimate.

II. Emission Factors: Natural Gas

Pollutant	Fuel Gas Combustion				Basis	Averaging Time
	lb/mmscf	ppmv	lb/MMbtu	lb/hr		
VOC	--	2	0.0026	--	Vendor Data; BACT guarantee. As methane.	3-hr Average
NOx	--	2.5	0.0092	--	Vendor Data; BACT guarantee	3-hr Average
CO	--	5	0.0112	--	Vendor Data	3-hr Average
PM / PM10 / PM2.5	--	--	--	3.10	Vendor Data Spec Worst-Case; BACT guarantee	1-hr Average
SO2	1.43	--	0.00140	--	Fuel Analysis	1-hr Average
H2SO4	0.22		0.00021	--	Fuel Analysis	1-hr Average
$(NH4)_2SO4$	0.29		0.00029	--	Fuel Analysis	1-hr Average
NH_3 (Hourly)	--	10	0.0136	--	BACT	3-hr Average
NH_3 (Annual)	--	5	0.0068	--	BACT	Annual

III. Emissions Criteria

Source Name	Heat Rating	VOC	NO_X	CO	NH_3	SO_2	H_2SO_4	$PM/PM_{10}/PM_{2.5}$
	MMbtu/hr	Hourly Emissions (lb/hr)						
Siemens SGT-800 Turbine	527.14	1.37	4.86	5.91	7.18	0.74	0.11	3.25

Source Name	Annual Hours of Operation	Heat Rating	VOC	NO_X	CO	NH_3	SO_2	H_2SO_4	$PM/PM_{10}/PM_{2.5}$
	hr	MMbtu/yr	Annual Emissions (tpy)						
Siemens SGT-800 Turbine	8760	4,617,772	5.98	21.28	25.90	15.73	3.24	0.50	14.25

Appendix B-2: Siemens SGT-800 Gas Turbine Emissions

IV. VOC Speciation - AP-42 Pollutants/40 CFR 63 YYYY

Pollutant	Emission Factor (lb/MMBtu)	Emissions per Turbine	
		lb/hr	tpy
1,3 butadiene	4.30E-07	2.27E-04	9.93E-04
Acetaldehyde	4.00E-05	2.11E-02	9.24E-02
Acrolein	6.40E-06	3.37E-03	1.48E-02
Benzene	1.20E-05	6.33E-03	2.77E-02
Ethylbenzene	3.20E-05	1.69E-02	7.39E-02
Formaldehyde	2.19E-04	1.15E-01	5.05E-01
Naphthalene	1.30E-06	6.85E-04	3.00E-03
Propylene Oxide	2.90E-05	1.53E-02	6.70E-02
Toluene	1.30E-04	6.85E-02	3.00E-01
Xylene	6.40E-05	3.37E-02	1.48E-01

V. Calculations - Siemens SGT-800 Turbine

Gaseous Pollutant Sample Calculation - Volatile Organic Compounds (VOC)

Emission Factor 2.0 ppmvd @ 15% O_2

Emission Factor Conversion using F-Factor Method

$$\text{Emission Factor} = \frac{2.0\ \text{ppmvd}}{} \times \frac{8710\ \text{dscf}}{\text{MMBtu}} \times \frac{4.15584\text{E-}08\ \text{lb}}{\text{scf}} \times \frac{20.9}{20.9\text{-}15} = 0.0026\ \frac{\text{lb}}{\text{MMBtu}}$$

K Factor for VOC =

$$\frac{1\ \text{ppm}}{1000000} \times \frac{16\ \text{lb}}{\text{lb-mol}} \times \frac{\text{lb-mol}}{385\ \text{scf}} = 4.15584\text{E-}08\ \text{(lb/scf/ppm)}$$

Short-term Emission Calculation (VOC)

$$\frac{0.0026\ \text{lb}}{\text{MMBtu}} \times \frac{527.14\ \text{MMBtu}}{\text{hr}} = 1.37\ \frac{\text{lb VOC}}{\text{hr}}$$

Annual Emission Calculation (VOC)

$$\frac{0.0026\ \text{lb}}{\text{MMBtu}} \times \frac{4{,}617{,}772\ \text{MMBtu}}{\text{yr}} \times \frac{\text{ton}}{2{,}000\ \text{lb}} = 5.98\ \frac{\text{tons VOC}}{\text{yr}}$$

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Appendix B-2: Siemens SGT-800 Gas Turbine Emissions

Gaseous Pollutant Sample Calculation - Oxides of Nitrogen (NO_X)

Emission Factor 2.5 ppmvd @ 15% O_2

Emission Factor Conversion using F-Factor Method

$$\text{Emission Factor} = \frac{2.5 \text{ ppmvd} \times 8710 \text{ dscf/MMBtu} \times 1.19506\text{E-}07 \text{ lb/scf} \times 20.9}{20.9\text{-}15} = 0.0092 \text{ lb/MMBtu}$$

K Factor for NO_X =

$$\frac{1}{1000000} \text{ ppm} \times \frac{46.01 \text{ lb}}{\text{lb-mol}} \times \frac{\text{lb-mol}}{385 \text{ scf}} = 1.19506\text{E-}07 \text{ (lb/scf/ppm)}$$

Short-term Emission Calculation (NO_X)

$$0.0092 \frac{\text{lb}}{\text{MMBtu}} \times 527.14 \frac{\text{MMBtu}}{\text{hr}} = 4.86 \frac{\text{lb } NO_X}{\text{hr}}$$

Annual Emission Calculation (NO_X)

$$0.0092 \frac{\text{lb}}{\text{MMBtu}} \times 4{,}617{,}772 \frac{\text{MMBtu}}{\text{yr}} \times \frac{\text{ton}}{2{,}000 \text{ lb}} = 21.28 \frac{\text{tons } NO_X}{\text{yr}}$$

Gaseous Pollutant Sample Calculation - Carbon Monoxide (CO)

Emission Factor 5.0 ppmvd @ 15% O_2

Emission Factor Conversion using F-Factor Method

$$\text{Emission Factor} = \frac{5.0 \text{ ppmvd} \times 8710 \text{ dscf/MMBtu} \times 7.27273\text{E-}08 \text{ lb/scf} \times 20.9}{20.9\text{-}15} = 0.0112 \text{ lb/MMBtu}$$

K Factor for CO =

$$\frac{1}{1000000} \text{ ppm} \times \frac{28 \text{ lb}}{\text{lb-mol}} \times \frac{\text{lb-mol}}{385 \text{ scf}} = 7.27273\text{E-}08 \text{ (lb/scf/ppm)}$$

Short-term Emission Calculation (CO)

$$0.0112 \frac{\text{lb}}{\text{MMBtu}} \times 527.14 \frac{\text{MMBtu}}{\text{hr}} = 5.91 \frac{\text{lb CO}}{\text{hr}}$$

Annual Emission Calculation (CO)

$$0.0112 \frac{\text{lb}}{\text{MMBtu}} \times 4{,}617{,}772 \frac{\text{MMBtu}}{\text{yr}} \times \frac{\text{ton}}{2{,}000 \text{ lb}} = 25.90 \frac{\text{tons CO}}{\text{yr}}$$

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Appendix B-2: Siemens SGT-800 Gas Turbine Emissions

Gaseous Pollutant Sample Calculation - Ammonia (NH_3)

Emission Factor (Hourly) 10.0 ppmvd @ 15% O_2

Emission Factor (Annual) 5.0 ppmvd @ 15% O_2

Emission Factor Conversion using F-Factor Method

sion Factor (Hourly) = 10.0 ppmvd × 8710 dscf/MMBtu × 4.41558E-08 lb/scf × 20.9/(20.9-15) = 0.0136 lb/MMBtu

sion Factor (Annual) = 5.0 ppmvd × 8710 dscf/MMBtu × 4.41558E-08 lb/scf × 20.9/(20.9-15) = 0.0068 lb/MMBtu

K Factor for NH_3 = 1/1000000 ppm × 17 lb/lb-mol × 385 lb-mol/scf = 4.41558E-08 (lb/scf/ppm)

Short-term Emission Calculation (NH_3)

0.0136 lb/MMBtu × 527.14 MMBtu/hr = 7.18 lb NH_3/hr

Annual Emission Calculation (NH_3)

0.0068 lb/MMBtu × 4,617,772 MMBtu/yr × ton/2,000 lb = 15.73 tons NH_3/yr

Sample Calculation - Sulfur Dioxide (SO_2)

Emission Factor 0.5 grains sulfur/100 scf

Emission Factor Conversion (Grains to lb/MMscf)

Emission Factor = 0.5 grains sulfur/100 scf × 1,000,000 scf/MMscf × 7,000 grains/lb × 64.1 MW SO_2/32 MW Sulfur = 1.4308 lb/MMscf

Emission Factor Conversion (lb/MMscf to lb/MMBtu)

Emission Factor = 1.4 lb/MMscf × scf/1,020 btu = 0.00140 lb/MMBtu

Short-term Emission Calculation (SO_2)

0.0014 lb/MMBtu × 527.14 MMBtu/hr = 0.74 lb SO_2/hr

Annual Emission Calculation (SO_2)

0.0014 lb/MMBtu × 4,617,772 MMBtu/yr × ton/2,000 lb = 3.24 tons SO_2/yr

Sample Calculation - Sulfuric Acid (H_2SO_4)

SO_2 Emission Factor 1.43 lb/MMscf

H_2SO_4 Emission Factor

Emission Factor = 1.43 lb/MMscf × 10% × 98.1 MW H_2SO_4/64.1 MW SO_2 = 0.2190 lb/MMscf

Emission Factor Conversion (lb/MMscf to lb/MMBtu)

Emission Factor = 0.2 lb/MMscf × scf/1,020 btu = 0.00021 lb/MMBtu

Short-term Emission Calculation (H_2SO_4)

0.00021 lb/MMBtu × 527.14 MMBtu/hr = 0.11 lb H_2SO_4/hr

Annual Emission Calculation (H_2SO_4)

0.00021 lb/MMBtu × 4,617,772 MMBtu/yr × ton/2,000 lb = 0.50 tons H_2SO_4/yr

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Appendix B-2: Siemens SGT-800 Gas Turbine Emissions

Sample Calculation - Particulate Matter ($PM/PM_{10}/PM_{2.5}$)

Worst-Case PM Emissions from Turbine before SCR	3.10	lb/hr
SO_2 Emission Factor	1.43	lb/MMscf

$(NH4)_2SO_4$ Emission Factor

Emission Factor = 1.43 lb/MMscf × 10% × 132.14 / 64.1 (MW $(NH4)_2SO_4$ / MW SO_2) = 0.2950 lb/MMscf

$(NH4)_2SO_4$ Emission Factor Conversion (lb/MMscf to lb/MMBtu)

Emission Factor = 0.2950 lb/MMscf × 1,020 scf/btu = 0.00029 lb/MMBtu

Note that the ammonium sulfate (NH4)2SO4 molecule, which is a secondarily-formed particulate in the SCR, calculated as a conservative estimate.

Short-term Emission Calculation ($PM/PM_{10}/PM_{2.5}$)

3.10 lb/hr + 0.0003 lb/MMBtu × 527.14 MMBtu/hr = 3.25 lb $PM/PM_{10}/PM_{2.5}$/hr

Annual Emission Calculation ($PM/PM_{10}/PM_{2.5}$)

3.25 lb $PM/PM_{10}/PM_{2.5}$/hr × 8,760 hr/yr × ton/2,000 lb = 14.25 tons $PM/PM_{10}/PM_{2.5}$/yr

VOC Speciation Sample Calculation - 1,3 Butadiene

Emission Factor	4.30E-07	lb/MMBtu

Short-term Emission Calculation (1,3 Butadiene)

4.30E-07 lb/MMBtu × 527.14 MMBtu/hr = 2.27E-04 lb 1,3 Butadiene/hr

Annual Emission Calculation (1,3 Butadiene)

4.30E-07 lb/MMBtu × 4,617,772 MMBtu/yr × ton/2,000 lb = 9.93E-04 tons 1,3 Butadiene/yr

VOC Speciation Sample Calculation - Formaldehyde

Emission Factor	91.0	ppbvd @ 15% O_2
Emission Factor	0.091	ppmvd @ 15% O_2

Emission Factor Conversion using F-Factor Method

Emission Factor = 0.091 ppmvd × 8710 dscf/MMBtu × 7.79221E-08 lb/scf × 20.9 / (20.9-15) = 2.19E-04 lb/MMBtu

Factor for Formaldehyde = 1 / 1000000 ppm × 30 lb/lb-mol × lb-mol/385 scf = 7.79221E-08 (lb/scf/ppm)

Short-term Emission Calculation (Formaldehyde)

0.0002 lb/MMBtu × 527.14 MMBtu/hr = 1.15E-01 lb Formaldehyde/hr

Annual Emission Calculation (Formaldehyde)

0.0002 lb/MMBtu × 4,617,772 MMBtu/yr × ton/2,000 lb = 5.05E-01 tons Formaldehyde/yr

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Appendix B-3: Large-Frame (H-class, HL-class, or J-class) Turbine Performance Data - All OEMs

Case		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Turbine		Siemens SGT6-9000HL	Siemens SGT6-9000HL	Siemens SGT6-9000HL	Siemens SGT6-9000HL	Siemens SGT6-9000HL	Siemens SGT6-9000HL	Siemens SGT6-9000HL	Siemens SGT6-9000HL	Siemens SGT6-9000HL	Siemens SGT6-9000HL	Siemens SGT6-9000HL	Siemens SGT6-9000HL	Siemens SGT6-9000HL	Siemens SGT6-9000HL	Siemens SGT6-9000HL
Load	**%**	100	100	75	50	100	75	50	100	75	50	100	75	50	100	75
Chiller		No	No	No	No	No	No	No	No	No	No	No	No	No	No	No
Ambient Temperature	**deg F**	45	59	59	59	25.4	25.4	25.4	25.4	25.4	25.4	66.4	66.4	66.4	100.8	100.8
Relative Humidity	**%**	100	60	60	60	90	90	90	90	90	90	46	46	46	16	16
Gross Power Output	**MW**	413.60	402.00	301.50	201.00	424.10	318.10	212.10	424.10	318.10	212.10	392.00	294.00	196.00	340.30	255.20
Gross Heat Consumption	**MMBtu/hr**	3,257.10	3,174.59	2,518.73	1,907.09	3,338.94	2,628.78	1,983.56	3,338.94	2,628.78	1,983.56	3,107.78	2,470.19	1,873.96	2,782.97	2,232.74
Gross Efficiency	**%**	43.30	43.20	40.80	35.90	43.30	41.20	36.40	43.30	41.20	36.40	43.00	40.50	35.60	41.70	38.90
Heat Rate	**Btu/kWh**	7,875	7,897	8,354	9,488	7,873	8,264	9,352	7,873	8,264	9,352	7,928	8,402	9,561	8,178	8,749
Exhaust Gas Flow	**Nft3**	21,193.29	20,694.04	16,614.60	13,628.14	21,739.69	17,222.91	14,080.47	21,739.69	17,222.91	14,080.47	20,375.97	16,398.22	13,485.66	18,658.96	15,215.66
Exhaust Molecular Weight	**lb/lb-mol**	28.21	28.23	28.25	28.32	28.29	28.32	28.35	28.29	28.32	28.35	28.21	28.24	28.30	28.25	28.28
Exhaust Temperature	**deg F**	1,210	1,221	1,221	1,221	1,195	1,195	1,195	1,195	1,195	1,195	1,225	1,225	1,225	1,253	1,253
Average Atmospheric Temperature	**deg Rankine**	524	524	524	524	524	524	524	524	524	524	524	524	524	524	524
Dilution Flow Rate	**Nft3/s**	9707.47	9768.42	7842.76	6433.03	9542.84	7560.15	6180.75	9542.84	7560.15	6180.75	9721.98	7824.08	6434.41	9567.48	7801.91
SCR Temperature	**deg Rankine**	1309.67	1309.67	1309.67	1309.67	1309.67	1309.67	1309.67	1309.67	1309.67	1309.67	1309.67	1309.67	1309.67	1309.67	1309.67
Total Flow	**Actual ft3/s**	82310.90	81143.37	65147.51	53437.28	83327.81	66015.08	53970.18	83327.81	66015.08	53970.18	80172.42	64521.37	53061.44	75187.25	61312.29
Emission Rates (before SCR)																
VOC	ppm	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
CO	ppm	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
NOX	ppm	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
PM	lb/hr	10	10	7.5	5	10	7.5	5	10	7.5	5	10	7.5	5	10	7.5

Worst-Case Parameters for Each Turbine Type						
Parameter	**Unit**	Siemens SGT6-9000HL	Mitsubishi M501JAC	Doosan DGT6-300H	GE 7HA.03	Worst Case
Turbine Firing Rate	MMBtu/hr	3,338.94	3,817.06	3,404.24	3,715.57	3,817.06
Gross Power Output	MW	424	433	387	421	433
VOC	ppmv	1.00	1.00	1.10	2.00	2.00
PM	lb/hr	10.00	10.00	5.09	9.00	10.00

The worst-case values for each parameter in this table were determined based on the maximum values among all turbine cases provided by the vendor.

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Appendix B-3: Large-Frame (H-class, HL-class, or J-class) Turbine Performance Data - All OEMs

						3817.06	3074.7	2345.636	3766.092	3278.572	2652.552	2186.084				
Case		16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Turbine		Siemens SGT6-9000HL	Siemens SGT6-9000HL	Siemens SGT6-9000HL	Siemens SGT6-9000HL	Mitsubishi M501JAC	Mitsubishi M501JAC	Mitsubishi M501JAC	Mitsubishi M501JAC	Mitsubishi M501JAC	Mitsubishi M501JAC	Mitsubishi M501JAC	Doosan DGT6-300H	Doosan DGT6-300H	Doosan DGT6-300H	Doosan DGT6-300H
Load	**%**	50	100	75	50	100	75	50	100	100	75	55	100	100	90	80
Chiller		No	No	No	No	No	No	No	Chiller	No	No	No	Off	Off	Off	Off
Ambient Temperature	**deg F**	100.8	114	114	114	25.4	25.4	25.4	101	101	101	101	59	25.4	25.4	25.4
Relative Humidity	**%**	16	16	16	16	90	90	90	16.4	16.4	16.4	16.4	60	90	90	90
Gross Power Output	**MW**	170.20	320.80	240.60	160.40	432.53	331.98	220.91	424.12	358.51	276.56	202.40	386.10	386.90	348.20	309.50
Gross Heat Consumption	**MMBtu/hr**	1,704.89	2,663.92	2,144.47	1,641.85	3,817.06	3,074.70	2,345.64	3,766.09	3,278.57	2,652.55	2,186.08	3,404.24	3,361.77	3,057.54	2,781.17
Gross Efficiency	**%**	34.00	41.00	38.20	33.20								38.60	39.20	38.80	37.90
Heat Rate	**Btu/kWh**	10,017	8,304	8,913	10,236	7,965.00	8,359.00	9,581.00	8,013.00	8,251.00	8,656.00	9,748.00	8,817.00	8,689.00	8,781.00	8,986.00
Exhaust Gas Flow	**Nft3**	12,601.29	17,989.20	14,721.96	12,205.88	36,468.06	32,770.83	27,920.14	36,364.93	34,069.44	30,486.81	27,412.15	21,178.40	20,570.33	19,580.43	17,840.06
Exhaust Molecular Weight	**lb/lb-mol**	28.26	28.17	28.23	28.24	--	--	--	--	--	--	--	28.27	28.32	28.35	28.35
Exhaust Temperature	**deg F**	1,253	1,267	1,267	1,267	823	773	763	825	811	771	762	1,202	1,183	1,145	1,163
Average Atmospheric Temperature	**deg Rankine**	524	524	524	524	524	524	524	524	524	524	524	524	524	524	524
Dilution Flow Rate	**Nft3/s**	6461.38	9544.50	7811.00	6476.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9485.08	8715.46	7349.36	7104.70
SCR Temperature	**deg Rankine**	1309.67	1309.67	1309.67	1309.67	1309.67	1309.67	1309.67	1309.67	1309.67	1309.67	1309.67	1309.67	1309.67	1309.67	1309.67
Total Flow	**Actual ft3/s**	50777.55	73341.99	60021.43	49763.40	97140.60	87292.24	74371.36	96865.90	90751.38	81208.24	73018.23	81678.85	78009.07	71733.33	66445.79
Emission Rates (before SCR)																
VOC	ppm	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.1	1.1	1.1
CO	ppm	10.0	10.0	10.0	10.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	10.0	10.6	10.6	10.6
NOX	ppm	25	25	25	25	2	2	2	2	2	2	2	30	32	32	32
PM	lb/hr	5	10	7.5	5	10	7.5	5	10	10	7.5	5.5	5	5	5	4

	W
Parameter	**Unit**
Turbine Firing Rate	MMBtu/hr
Gross Power Output	MW
VOC	ppmv
PM	lb/hr

The worst-case values for each parameter in this

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Appendix B-3: Large-Frame (H-class, HL-class, or J-class) Turbine Performance Data - All OEMs

Case		31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
Turbine		Doosan DGT6-300H	Doosan DGT6-300H	Doosan DGT6-300H	Doosan DGT6-300H	Doosan DGT6-300H	Doosan DGT6-300H	Doosan DGT6-300H	Doosan DGT6-300H	Doosan DGT6-300H	Doosan DGT6-300H	Doosan DGT6-300H	Doosan DGT6-300H	Doosan DGT6-300H	Doosan DGT6-300H	Doosan DGT6-300H
Load	**%**	70	60	50	100	90	80	70	60	50	100	90	80	70	60	50
Chiller		Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off
Ambient Temperature	**deg F**	25.4	25.4	25.4	66.4	66.4	66.4	66.4	66.4	66.4	100.8	100.8	100.8	100.8	100.8	100.8
Relative Humidity	**%**	90	90	90	46	46	46	46	46	46	16.4	16.4	16.4	16.4	16.4	16.4
Gross Power Output	**MW**	270.80	232.10	193.40	342.70	308.40	274.10	239.90	205.60	171.30	304.70	274.20	243.80	213.30	182.80	152.30
Gross Heat Consumption	**MMBtu/hr**	2,528.19	2,284.79	2,033.99	3,035.98	2,773.44	2,537.89	2,321.03	2,103.70	1,869.91	2,766.07	2,538.00	2,335.60	2,141.53	1,940.97	1,726.32
Gross Efficiency	**%**	36.50	34.60	32.40	38.50	37.90	36.80	35.20	33.30	31.20	37.50	36.80	35.60	33.90	32.10	30.10
Heat Rate	**Btu/kWh**	9,336.00	9,844.00	10,517.00	8,859.00	8,993.00	9,259.00	9,675.00	10,232.00	10,916.00	9,078.00	9,256.00	9,580.00	10,040.00	10,618.00	11,335.00
Exhaust Gas Flow	**Nft3**	16,294.41	14,781.89	13,332.40	18,954.99	18,168.35	16,689.31	15,362.01	14,001.36	12,844.36	17,616.48	16,999.42	15,744.26	14,565.05	13,418.37	12,380.89
Exhaust Molecular Weight	**lb/lb-mol**	28.35	28.35	28.36	28.27	28.29	28.29	28.30	28.30	28.32	28.27	28.29	28.30	28.30	28.31	28.33
Exhaust Temperature	**deg F**	1,188	1,224	1,256	1,206	1,169	1,189	1,215	1,248	1,256	1,230	1,193	1,213	1,236	1,256	1,256
Average Atmospheric Temperature	**deg Rankine**	524	524	524	524	524	524	524	524	524	524	524	524	524	524	524
Dilution Flow Rate	**Nft3/s**	7007.46	7034.07	6887.15	8585.76	7374.14	7198.52	7134.21	7090.20	6635.04	8517.41	7418.79	7271.67	7153.26	6931.56	6395.62
SCR Temperature	**deg Rankine**	1309.67	1309.67	1309.67	1309.67	1309.67	1309.67	1309.67	1309.67	1309.67	1309.67	1309.67	1309.67	1309.67	1309.67	1309.67
Total Flow	**Actual ft3/s**	62069.59	58111.56	53859.18	73360.79	68037.96	63630.45	59923.58	56181.96	51887.62	69613.31	65043.22	61307.95	57851.44	54206.46	50015.32
Emission Rates (before SCR)																
VOC	ppm	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
CO	ppm	10.6	10.6	10.6	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
NOX	ppm	32	32	32	30	30	30	30	30	30	30	30	30	30	30	30
PM	lb/hr	4	4	3	4	4	4	3	3	3	4	4	4	3	3	3

	W
Parameter	**Unit**
Turbine Firing Rate	MMBtu/hr
Gross Power Output	MW
VOC	ppmv
PM	lb/hr

The worst-case values for each parameter in this

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Appendix B-3: Large-Frame (H-class, HL-class, or J-class) Turbine Performance Data - All OEMs

Case		46	47	48	49	50	51	52	53	54	55	56
Turbine		Doosan DGT6-300H	Doosan DGT6-300H	Doosan DGT6-300H	Doosan DGT6-300H	Doosan DGT6-300H	Doosan DGT6-300H	GE 7HA.03	GE 7HA.03	GE 7HA.03	GE 7HA.03	GE 7HA.03
Load	**%**	100	90	80	70	60	50	100	100	100	100	100
Chiller		Chiller	Chiller	Chiller	Chiller	Chiller	Chiller	No	No	No	Yes	Yes
Ambient Temperature	**deg F**	45	45	45	45	45	45	1.6	24.5	59	101	114.8
Relative Humidity	**%**	16.4	16.4	16.4	16.4	16.4	16.4	95	90	45	16.4	5
Gross Power Output	**MW**	364.90	328.40	291.90	255.40	218.90	182.40	420.65	412.43	412.76	415.14	414.28
Gross Heat Consumption	**MMBtu/hr**	3,195.06	2,911.92	2,656.87	2,422.21	2,192.50	1,951.13	3,715.57	3,655.18	3,624.93	3,642.44	3,633.02
Gross Efficiency	**%**	38.90	38.40	37.40	35.90	34.00	31.80					
Heat Rate	**Btu/kWh**	8,756.00	8,867.00	9,102.00	9,484.00	10,016.00	10,697.00	7,972.00	7,999.00	7,926.00	7,919.00	7,915.00
Exhaust Gas Flow	**Nft3**	19,790.62	18,894.74	17,281.18	15,841.82	14,403.02	13,086.56	22,632.43	22,618.62	22,276.31	22,619.97	22,618.48
Exhaust Molecular Weight	**lb/lb-mol**	28.36	28.38	28.39	28.39	28.39	28.40	28.34	28.33	28.28	28.25	28.31
Exhaust Temperature	**deg F**	1,191	1,154	1,173	1,199	1,234	1,256	1,212	1,215	1,242	1,218	1,216
Average Atmospheric Temperature	**deg Rankine**	524	524	524	524	524	524	524	524	524	524	524
Dilution Flow Rate	**Nft3/s**	8586.55	7308.35	7102.01	7034.54	7037.04	6760.15	10424.25	10504.23	11110.52	10591.19	10532.94
SCR Temperature	**deg Rankine**	1309.67	1309.67	1309.67	1309.67	1309.67	1309.67	1309.67	1309.67	1309.67	1309.67	1309.67
Total Flow	**Actual ft3/s**	75588.76	69797.64	64949.93	60936.15	57110.25	52866.04	88053.65	88229.92	88933.09	88465.14	88306.00

Emission Rates (before SCR)												
VOC	ppm	1.1	1.1	1.1	1.1	1.1	1.1	2.0	2.0	2.0	2.0	2.0
CO	ppm	10.3	10.3	10.3	10.3	10.3	10.3	5.9	6.0	5.9	6.0	6.0
NOX	ppm	31	31	31	31	31	31	33	33	33	33	33
PM	lb/hr	4	4	4	4	3	3	9	9	9	9	9

	W
Parameter	**Unit**
Turbine Firing Rate	MMBtu/hr
Gross Power Output	MW
VOC	ppmv
PM	lb/hr

The worst-case values for each parameter in this

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Appendix B-4a: Large-Frame (H-class, HL-class, or J-class) Turbine Worst Case Envelope

I. Basis

Emissions from the large turbines (EPNS CT-1B through CT-14B) are calculated using a combination of vendor specs and BACT. The worst-case turbine is calculated using the worst-case parameter from all large turbines, alongside the highest hourly firing rate in order. Annual emissions are calculated assuming 8760 hours of operation annually.

An SCR will be installed to control NOX emissions. Ammonia slip will be limited to 10 ppm on an three-hour basis and 5 ppm on an annual basis. Exit formaldehyde concentration was calculated at 91 ppb at 15% O2 per 40 CFR 63 Subpart YYYY.

Sulfuric Acid (H2SO4) emissions are calculated using an vendor-provided estimate of a 10% molar conversion ratio of SO2 to SO3- in the SCR and oxidation catalyst, based on vendor feedback, and conservatively assuming each SO3- molecule forms one H2SO4 molecule. Additionally, it was assumed each SO3- molecule may form 1 ammonium sulfate (NH4)2SO4 molecule, which is a particulate. This was added to the PM emission factor from the vendor for a conservative estimate.

II. Emission Factors: Natural Gas

Pollutant	Emission Factors				Basis	Averaging Time
	lb/mmscf	ppmv	lb/MMbtu	lb/hr		
VOC	--	2.0	0.0026		Vendor Data; BACT guarantee. As methane.	3-hr Average
NOx	--	2.5	0.0092		Vendor Data; BACT guarantee	3-hr Average
CO	--	9.0	0.0202		Vendor Data; BACT guarantee	3-hr Average
PM / PM10 / PM2.5	--	--	--	10.00	Vendor Data Worst-Case	1-hr Average
SO2	1.43	--	0.00140		Fuel Analysis	1-hr Average
H2SO4	0.22		0.00021		Fuel Analysis	1-hr Average
$(NH4)_2SO4$	0.29		0.00029		Fuel Analysis	1-hr Average
NH_3 (Hourly)	--	10	0.0136		BACT	3-hr Average
NH_3 (Annual)	--	5	0.0068		BACT	Annual

III. Emissions Criteria

Source Name	Heat Rating	VOC	NO_X	CO	NH_3	SO_2	H_2SO_4	$PM/PM_{10}/PM_{2.5}$
	MMbtu/hr	Hourly Emissions (lb/hr)						
Large-Frame Combustion Turbine	3817.06	9.79	35.19	77.09	52.00	5.35	0.82	11.10

Source Name	Annual Hours of Operation	Heat Rating	VOC	NO_X	CO	NH_3	SO_2	H_2SO_4	$PM/PM_{10}/PM_{2.5}$
	hr	MMbtu/yr	Annual Emissions (tpy)						
Large Combustion Turbine	8760	33,437,446	42.88	154.12	337.64	113.89	23.45	3.59	48.63

IV. VOC Speciation - AP-42 Table 3.1-3 Pollutants/40 CFR 63 YYYY

Pollutant	Emission Factor (lb/MMBtu)	Emissions per Turbine	
		lb/hr	tpy
1,3 butadiene	4.30E-07	1.64E-03	7.19E-03
Acetaldehyde	4.00E-05	1.53E-01	6.69E-01
Acrolein	6.40E-06	2.44E-02	1.07E-01
Benzene	1.20E-05	4.58E-02	2.01E-01
Ethylbenzene	3.20E-05	1.22E-01	5.35E-01
Formaldehyde	2.19E-04	8.35E-01	3.66E+00
Naphthalene	1.30E-06	4.96E-03	2.17E-02
Propylene Oxide	2.90E-05	1.11E-01	4.85E-01
Toluene	1.30E-04	4.96E-01	2.17E+00
Xylene	6.40E-05	2.44E-01	1.07E+00

Appendix B-4a: Large-Frame (H-class, HL-class, or J-class) Turbine Worst Case Envelope

V. Calculations - Large-Frame (H-class, HL-class, or J-class) Turbine Worst Case
Gaseous Pollutant Sample Calculation - Volatile Organic Compounds (VOC)

Emission Factor 2.0 ppmvd @ 15% O_2

Emission Factor Conversion using F-Factor Method

Emission Factor =	2.0	ppmvd	8710	dscf / MMBtu	4.15584E-08	lb / scf	20.9 / 20.9-15	=	0.0026	lb / MMBtu	

K Factor for VOC = 1 / 1000000	ppm	16	lb / lb-mol		lb-mol / scf	=	4.15584E-08 (lb/scf/ppm)

Short-term Emission Calculation (VOC)

0.0026	lb / MMBtu	3817.06	MMBtu / hr	=	9.79	lb VOC / hr

Annual Emission Calculation (VOC)

0.0026	lb / MMBtu	33,437,446	MMBtu / yr	ton / 2,000 lb	=	42.88	tons VOC / yr

Gaseous Pollutant Sample Calculation - Oxides of Nitrogen (NO_X)

Emission Factor 2.5 ppmvd @ 15% O_2

Emission Factor Conversion using F-Factor Method

Emission Factor =	2.5	ppmvd	8710	dscf / MMBtu	1.19506E-07	lb / scf	20.9 / 20.9-15	=	0.0092	lb / MMBtu	

K Factor for NO_X = 1 / 1000000	ppm	46.01	lb / lb-mol		lb-mol / scf	=	1.19506E-07 (lb/scf/ppm)

Short-term Emission Calculation (NO_X)

0.0092	lb / MMBtu	3817.06	MMBtu / hr	=	35.19	lb NO_X / hr

Annual Emission Calculation (NO_X)

0.0092	lb / MMBtu	33,437,446	MMBtu / yr	ton / 2,000 lb	=	154.12	tons NO_X / yr

Gaseous Pollutant Sample Calculation - Carbon Monoxide (CO)

Emission Factor 9.0 ppmvd @ 15% O_2

Emission Factor Conversion using F-Factor Method

Emission Factor =	9.0	ppmvd	8710	dscf / MMBtu	7.27273E-08	lb / scf	20.9 / 20.9-15	=	0.0202	lb / MMBtu	

K Factor for CO = 1 / 1000000	ppm	28	lb / lb-mol		lb-mol / scf	=	7.27273E-08 (lb/scf/ppm)

Short-term Emission Calculation (CO)

0.0202	lb / MMBtu	3817.06	MMBtu / hr	=	77.09	lb CO / hr

Annual Emission Calculation (CO)

0.0202	lb / MMBtu	33,437,446	MMBtu / yr	ton / 2,000 lb	=	337.64	tons CO / yr

Gaseous Pollutant Sample Calculation - Ammonia (NH_3)

Emission Factor (Hourly) 10.0 ppmvd @ 15% O_2
Emission Factor (Annual) 5.0 ppmvd @ 15% O_2

Emission Factor Conversion using F-Factor Method

sion Factor (Hourly) =	10.0	ppmvd	8710	dscf / MMBtu	4.41558E-08	lb / scf	20.9 / 20.9-15	=	0.0136	lb / MMBtu	
ion Factor (Annual) =	5.0	ppmvd	8710	dscf / MMBtu	4.41558E-08	lb / scf	20.9 / 20.9-15	=	0.0068	lb / MMBtu	

K Factor for NH_3 = 1 / 1000000	ppm	17	lb / lb-mol		lb-mol / scf	=	4.41558E-08 (lb/scf/ppm)

Appendix B-4a: Large-Frame (H-class, HL-class, or J-class) Turbine Worst Case Envelope

Short-term Emission Calculation (NH_3)

0.0136	lb / MMBtu	3817.06	MMBtu / hr	=	52.00	lb NH_3 / hr	

Annual Emission Calculation (NH_3)

0.0068	lb / MMBtu	33,437,446	MMBtu / yr	ton / 2,000 lb	=	113.89	tons NH_3 / yr	

Sample Calculation - Sulfur Dioxide (SO_2)

Emission Factor 0.5 grains sulfur/100 scf

Emission Factor Conversion (Grains to lb/MMscf)

Emission Factor =	0.5	grains sulfur / 100 scf	1,000,000	scf / MMscf		lb / grains	64.1	MW SO_2 / MW Sulfur	=	1.4308	lb / MMscf

Emission Factor Conversion (lb/MMscf to lb/MMBtu)

Emission Factor =	1.4	lb / MMscf		scf / btu	=	0.00140	lb / MMBtu
			1,020				

Short-term Emission Calculation (SO_2)

0.0014	lb / MMBtu	3817.06	MMBtu / hr	=	5.35	lb SO_2 / hr	

Annual Emission Calculation (SO_2)

0.0014	lb / MMBtu	33,437,446	MMBtu / yr	ton / 2,000 lb	=	23.45	tons SO_2 / yr	

Sample Calculation - Sulfuric Acid (H_2SO_4)

SO_2 Emission Factor 1.43 lb/MMscf

H_2SO_4 Emission Factor

Emission Factor =	1.43	lb / MMscf	10%	98.1 / 64.1	MW H_2SO_4 / MW SO_2	=	0.2190	lb / MMscf	

Emission Factor Conversion (lb/MMscf to lb/MMBtu)

Emission Factor =	0.2	lb / MMscf		scf / btu	=	0.00021	lb / MMBtu
			1,020				

Short-term Emission Calculation (H_2SO_4)

0.00021	lb / MMBtu	3817.06	MMBtu / hr	=	0.82	lb H_2SO_4 / hr	

Annual Emission Calculation (H_2SO_4)

0.00021	lb / MMBtu	33,437,446	MMBtu / yr	ton / 2,000 lb	=	3.59	tons H_2SO_4 / yr	

Sample Calculation - Particulate Matter ($PM/PM_{10}/PM_{2.5}$)

Worst-Case PM Emissions from Turbine before SCR 10.00 lb/hr

SO_2 Emission Factor 1.43 lb/MMscf

$(NH4)_2SO_4$ Emission Factor

Emission Factor =	1.43	lb / MMscf	10%	132.14 / 64.1	MW $(NH4)_2SO_4$ / MW SO_2	=	0.2950	lb / MMscf	

$(NH4)_2SO_4$ Emission Factor Conversion (lb/MMscf to lb/MMBtu)

Emission Factor =	0.2950	lb / MMscf		scf / btu	=	0.00029	lb / MMBtu	
			1,020					

Note that the ammonium sulfate (NH4)2SO4 molecule, which is a secondarily-formed particulate in the SCR, calculated as a conservative estimate.

Short-term Emission Calculation ($PM/PM_{10}/PM_{2.5}$)

10.00	lb / hr	+	0.0003	lb / MMBtu	3817.06	MMBtu / hr	=	11.10	lb $PM/PM_{10}/PM_{2.5}$ / hr

Annual Emission Calculation ($PM/PM_{10}/PM_{2.5}$)

11.10	lb PM/PM10/PM2.5 / hr	8,760	hr / yr	ton / 2,000 lb	=	48.63	tons $PM/PM_{10}/PM_{2.5}$ / yr	

Appendix B-4a: Large-Frame (H-class, HL-class, or J-class) Turbine Worst Case Envelope

VOC Speciation Sample Calculation - 1,3 Butadiene

Emission Factor 4.30E-07 lb/MMBtu

Short-term Emission Calculation (1,3 Butadiene)

4.30E-07	lb/MMBtu	3817.06	MMBtu/hr	=	1.64E-03	lb 1,3 Butadiene/hr	

Annual Emission Calculation (1,3 Butadiene)

4.30E-07	lb/MMBtu	33,437,446	MMBtu/yr	ton/2,000 lb	=	7.19E-03	tons 1,3 Butadiene/yr

VOC Speciation Sample Calculation - Formaldehyde

Emission Factor 91.0 ppbvd @ 15% O_2

Emission Factor 0.091 ppmvd @ 15% O_2

Emission Factor Conversion using F-Factor Method

Emission Factor =	0.091	ppmvd	8710	dscf/MMBtu	7.79221E-08	lb/scf	20.9/20.9-15	=	2.19E-04	lb/MMBtu	

Factor for Formaldehyde =

1/1000000	ppm	30	lb/lb-mol	385	lb-mol/scf	=	7.79221E-08	(lb/scf/ppm)

Short-term Emission Calculation (Formaldehyde)

0.0002	lb/MMBtu	3817.06	MMBtu/hr	=	8.35E-01	lb Formaldehyde/hr	

Annual Emission Calculation (Formaldehyde)

0.0002	lb/MMBtu	33,437,446	MMBtu/yr	ton/2,000 lb	=	3.66E+00	tons Formaldehyde/yr

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Appendix B-4b: Large-Frame Doosan DGT6-300H H-class Turbine

I. Basis

Emissions from the Doosan DGt6-300H large turbines are calculated using a combination of vendor specs and BACT. Annual emissions are calculated assuming 8760 hours of operation annually.

An SCR will be installed to control NOX emissions. Ammonia slip will be limited to 10 ppm on an three-hour basis and 5 ppm on an annual basis. Exit formaldehyde concentration was calculated at 91 ppb at 15% O2 per 40 CFR 63 Subpart YYYY.

Sulfuric Acid (H2SO4) emissions are calculated using an vendor-provided estimate of a 10% molar conversion ratio of SO2 to SO3- in the SCR and oxidation catalyst, based on vendor feedback, and conservatively assuming each SO3- molecule forms one H2SO4 molecule. Additionally, it was assumed each SO3- molecule may form 1 ammonium sulfate (NH4)2SO4 molecule, which is a particulate. This was added to the PM emission factor from the vendor for a conservative estimate.

II. Emission Factors: Natural Gas

Pollutant	Emission Factors				Basis	Averaging Time
	lb/mmscf	ppmv	lb/MMbtu	lb/hr		
VOC	--	1.1	0.0014	--	Vendor Data; BACT guarantee. As methane.	3-hr Average
NOx	--	2.5	0.0092	--	Vendor Data; BACT guarantee	3-hr Average
CO	--	9	0.0202	--	Vendor Data; BACT guarantee	3-hr Average
PM / PM10 / PM2.5	--	--	--	5.09	Vendor Data Worst-Case	1-hr Average
SO2	1.43	--	0.00140	--	Fuel Analysis	1-hr Average
H2SO4	0.22		0.00021	--	Fuel Analysis	1-hr Average
$(NH4)_2SO4$	0.29	--	0.00029	--	Fuel Analysis	1-hr Average
NH_3 (Hourly)	--	10	0.0136	--	BACT	3-hr Average
NH_3 (Annual)	--	5	0.0068	--	BACT	Annual

III. Emission Estimates

Source Name	Heat Rating	VOC	NO_X	CO	NH_3	SO_2	H_2SO_4	$PM/PM_{10}/PM_{2.5}$
	MMbtu/hr	Hourly Emissions (lb/hr)						
Large-Frame Combustion Turbine	3404.24	4.80	31.38	68.75	46.38	4.78	0.73	6.07

Source Name	Annual Hours of Operation	Heat Rating	VOC	NO_X	CO	NH_3	SO_2	H_2SO_4	$PM/PM_{10}/PM_{2.5}$
	hr	MMbtu/yr	Annual Emissions (tpy)						
Large Combustion Turbine	8760	29,821,175	21.03	137.45	301.13	101.57	20.92	3.20	26.59

IV. VOC Speciation - AP-42 Table 3.1-3 Pollutants/40 CFR 63 YYYY

Pollutant	Emission Factor (lb/MMBtu)	Emissions per Turbine	
		lb/hr	tpy
1,3 butadiene	4.30E-07	1.46E-03	6.41E-03
Acetaldehyde	4.00E-05	1.36E-01	5.96E-01
Acrolein	6.40E-06	2.18E-02	9.54E-02
Benzene	1.20E-05	4.09E-02	1.79E-01
Ethylbenzene	3.20E-05	1.09E-01	4.77E-01
Formaldehyde	2.19E-04	7.45E-01	3.26E+00
Naphthalene	1.30E-06	4.43E-03	1.94E-02
Propylene Oxide	2.90E-05	9.87E-02	4.32E-01
Toluene	1.30E-04	4.43E-01	1.94E+00
Xylene	6.40E-05	2.18E-01	9.54E-01

Appendix B-4b: Large-Frame Doosan DGT6-300H H-class Turbine

V. Calculations - Large-Frame Doosan DGT6-300H H-class Turbine

Gaseous Pollutant Sample Calculation - Volatile Organic Compounds (VOC)

Emission Factor 1.1 ppmvd @ 15% O_2

Emission Factor Conversion using F-Factor Method

Emission Factor = 1.1 ppmvd × 8710 dscf/MMBtu × 4.15584E-08 lb/scf × 20.9/(20.9-15) = 0.0014 lb/MMBtu

K Factor for VOC = 1/1000000 ppm × 16 lb/lb-mol × 385 scf/lb-mol = 4.15584E-08 (lb/scf/ppm)

Short-term Emission Calculation (VOC)

0.0014 lb/MMBtu × 3404.24 MMBtu/hr = 4.80 lb VOC/hr

Annual Emission Calculation (VOC)

0.0014 lb/MMBtu × 29,821,175 MMBtu/yr × ton/2,000 lb = 21.03 tons VOC/yr

Gaseous Pollutant Sample Calculation - Oxides of Nitrogen (NO_X)

Emission Factor 2.5 ppmvd @ 15% O_2

Emission Factor Conversion using F-Factor Method

Emission Factor = 2.5 ppmvd × 8710 dscf/MMBtu × 1.19506E-07 lb/scf × 20.9/(20.9-15) = 0.0092 lb/MMBtu

K Factor for NO_X = 1/1000000 ppm × 46.01 lb/lb-mol × 385 scf/lb-mol = 1.19506E-07 (lb/scf/ppm)

Short-term Emission Calculation (NO_X)

0.0092 lb/MMBtu × 3404.24 MMBtu/hr = 31.38 lb NO_X/hr

Annual Emission Calculation (NO_X)

0.0092 lb/MMBtu × 29,821,175 MMBtu/yr × ton/2,000 lb = 137.45 tons NO_X/yr

Gaseous Pollutant Sample Calculation - Carbon Monoxide (CO)

Emission Factor 9.0 ppmvd @ 15% O_2

Emission Factor Conversion using F-Factor Method

Emission Factor = 9.0 ppmvd × 8710 dscf/MMBtu × 7.27273E-08 lb/scf × 20.9/(20.9-15) = 0.0202 lb/MMBtu

K Factor for CO = 1/1000000 ppm × 28 lb/lb-mol × 385 scf/lb-mol = 7.27273E-08 (lb/scf/ppm)

Short-term Emission Calculation (CO)

0.0202 lb/MMBtu × 3404.24 MMBtu/hr = 68.75 lb CO/hr

Annual Emission Calculation (CO)

0.0202 lb/MMBtu × 29,821,175 MMBtu/yr × ton/2,000 lb = 301.13 tons CO/yr

Gaseous Pollutant Sample Calculation - Ammonia (NH_3)

Emission Factor (Hourly) 10.0 ppmvd @ 15% O_2

Emission Factor (Annual) 5.0 ppmvd @ 15% O_2

Emission Factor Conversion using F-Factor Method

sion Factor (Hourly) = 10.0 ppmvd × 8710 dscf/MMBtu × 4.41558E-08 lb/scf × 20.9/(20.9-15) = 0.0136 lb/MMBtu

sion Factor (Annual) = 5.0 ppmvd × 8710 dscf/MMBtu × 4.41558E-08 lb/scf × 20.9/(20.9-15) = 0.0068 lb/MMBtu

K Factor for NH_3 = 1/1000000 ppm × 17 lb/lb-mol × 385 scf/lb-mol = 4.41558E-08 (lb/scf/ppm)

Short-term Emission Calculation (NH_3)

Appendix B-4b: Large-Frame Doosan DGT6-300H H-class Turbine

0.0136	lb/MMBtu	3404.24	MMBtu/hr	=	46.38	lb NH_3/hr	

Annual Emission Calculation (NH_3)

0.0068	lb/MMBtu	29,821,175	MMBtu/yr	ton/2,000 lb	=	101.57	tons NH_3/yr

Sample Calculation - Sulfur Dioxide (SO_2)

Emission Factor 0.5 grains sulfur/100 scf

Emission Factor Conversion (Grains to lb/MMscf)

Emission Factor =	0.5	grains sulfur/100 scf	1,000,000	scf/MMscf		lb/grains	64.1	MW SO_2/MW Sulfur	=	1.4308	lb/MMscf
					7,000		32				

Emission Factor Conversion (lb/MMscf to lb/MMBtu)

Emission Factor =	1.4	lb/MMscf		scf/btu	=	0.00140	lb/MMBtu
			1,020				

Short-term Emission Calculation (SO_2)

0.0014	lb/MMBtu	3404.24	MMBtu/hr	=	4.78	lb SO_2/hr	

Annual Emission Calculation (SO_2)

0.0014	lb/MMBtu	29,821,175	MMBtu/yr	ton/2,000 lb	=	20.92	tons SO_2/yr

Sample Calculation - Sulfuric Acid (H_2SO_4)

SO_2 Emission Factor 1.43 lb/MMscf

H_2SO_4 Emission Factor

Emission Factor =	1.43	lb/MMscf	10%	98.1/64.1	MW H_2SO_4/MW SO_2	=	0.2190	lb/MMscf		

Emission Factor Conversion (lb/MMscf to lb/MMBtu)

Emission Factor =	0.2	lb/MMscf		scf/btu	=	0.00021	lb/MMBtu
			1,020				

Short-term Emission Calculation (H_2SO_4)

0.00021	lb/MMBtu	3404.24	MMBtu/hr	=	0.73	lb H_2SO_4/hr	

Annual Emission Calculation (H_2SO_4)

0.00021	lb/MMBtu	29,821,175	MMBtu/yr	ton/2,000 lb	=	3.20	tons H_2SO_4/yr

Sample Calculation - Particulate Matter ($PM/PM_{10}/PM_{2.5}$)

Worst-Case PM Emissions from Turbine before SCR 5.09 lb/hr

SO_2 Emission Factor 1.43 lb/MMscf

$(NH4)_2SO_4$ Emission Factor

Emission Factor =	1.43	lb/MMscf	10%	132.14/64.1	MW $(NH4)_2SO_4$/MW SO_2	=	0.2950	lb/MMscf		

$(NH4)_2SO_4$ Emission Factor Conversion (lb/MMscf to lb/MMBtu)

Emission Factor =	0.2950	lb/MMscf		scf/btu	=	0.00029	lb/MMBtu
			1,020				

Note that the ammonium sulfate (NH4)2SO4 molecule, which is a secondarily-formed particulate in the SCR, calculated as a conservative estimate.

Short-term Emission Calculation ($PM/PM_{10}/PM_{2.5}$)

5.09	lb/hr	+	0.0003	lb/MMBtu	3404.24	MMBtu/hr	=	6.07	lb $PM/PM_{10}/PM_{2.5}$/hr

Annual Emission Calculation ($PM/PM_{10}/PM_{2.5}$)

6.07	lb PM/PM10/PM2.5/hr	8,760	hr/yr	ton/2,000 lb	=	26.59	tons $PM/PM_{10}/PM_{2.5}$/yr

Appendix B-4b: Large-Frame Doosan DGT6-300H H-class Turbine

VOC Speciation Sample Calculation - 1,3 Butadiene

Emission Factor 4.30E-07 lb/MMBtu

Short-term Emission Calculation (1,3 Butadiene)

$$\frac{4.30E\text{-}07\ \text{lb}}{\text{MMBtu}} \times \frac{3404.24\ \text{MMBtu}}{\text{hr}} = 1.46E\text{-}03\ \frac{\text{lb 1,3 Butadiene}}{\text{hr}}$$

Annual Emission Calculation (1,3 Butadiene)

$$\frac{4.30E\text{-}07\ \text{lb}}{\text{MMBtu}} \times \frac{29{,}821{,}175\ \text{MMBtu}}{\text{yr}} \times \frac{\text{ton}}{2{,}000\ \text{lb}} = 6.41E\text{-}03\ \frac{\text{tons 1,3 Butadiene}}{\text{yr}}$$

VOC Speciation Sample Calculation - Formaldehyde

Emission Factor 91.0 ppbvd @ 15% O_2

Emission Factor 0.091 ppmvd @ 15% O_2

Emission Factor Conversion using F-Factor Method

$$\text{Emission Factor} = \frac{0.091\ \text{ppmvd}}{} \times \frac{8710\ \text{dscf}}{\text{MMBtu}} \times \frac{7.79221E\text{-}08\ \text{lb}}{\text{scf}} \times \frac{20.9}{20.9\text{-}15} = 2.19E\text{-}04\ \frac{\text{lb}}{\text{MMBtu}}$$

$$\text{Factor for Formaldehyde} = \frac{1}{1000000}\ \text{ppm} \times \frac{30\ \text{lb}}{\text{lb-mol}} \times \frac{\text{lb-mol}}{385\ \text{scf}} = 7.79221E\text{-}08\ \text{(lb/scf/ppm)}$$

Short-term Emission Calculation (Formaldehyde)

$$\frac{0.0002\ \text{lb}}{\text{MMBtu}} \times \frac{3404.24\ \text{MMBtu}}{\text{hr}} = 7.45E\text{-}01\ \frac{\text{lb Formaldehyde}}{\text{hr}}$$

Annual Emission Calculation (Formaldehyde)

$$\frac{0.0002\ \text{lb}}{\text{MMBtu}} \times \frac{29{,}821{,}175\ \text{MMBtu}}{\text{yr}} \times \frac{\text{ton}}{2{,}000\ \text{lb}} = 3.26E+00\ \frac{\text{tons Formaldehyde}}{\text{yr}}$$

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Appendix B-4c: Large-Frame GE 7HA.03 H-class Turbine

I. Basis

Emissions from the GE 7HA large turbines are calculated using a combination of vendor specs and BACT. Annual emissions are calculated assuming 8760 hours of operation annually.

An SCR will be installed to control NOX emissions. Ammonia slip will be limited to 10 ppm on an three-hour basis and 5 ppm on an annual basis. Exit formaldehyde concentration was calculated at 91 ppb at 15% O2 per 40 CFR 63 Subpart YYYY.

Sulfuric Acid (H2SO4) emissions are calculated using an vendor-provided estimate of a 10% molar conversion ratio of SO2 to SO3- in the SCR and oxidation catalyst, based on vendor feedback, and conservatively assuming each SO3- molecule forms one H2SO4 molecule. Additionally, it was assumed each SO3- molecule may form 1 ammonium sulfate (NH4)2SO4 molecule, which is a particulate. This was added to the PM emission factor from the vendor for a conservative estimate.

II. Emission Factors: Natural Gas

Pollutant	Emission Factors				Basis	Averaging Time
	lb/mmscf	ppmv	lb/MMbtu	lb/hr		
VOC	--	2.0	0.0026	--	Vendor Data; BACT guarantee. As methane.	3-hr Average
NOx	--	2.5	0.0092	--	Vendor Data; BACT guarantee	3-hr Average
CO	--	9	0.0202	--	Vendor Data; BACT guarantee	3-hr Average
PM / PM10 / PM2.5	--	--	--	9.00	Vendor Data Worst-Case	1-hr Average
SO2	1.43	--	0.00140	--	Fuel Analysis	1-hr Average
H2SO4	0.22		0.00021	--	Fuel Analysis	1-hr Average
$(NH4)_2SO4$	0.29		0.00029	--	Fuel Analysis	1-hr Average
NH_3 (Hourly)	--	10	0.0136	--	BACT	3-hr Average
NH_3 (Annual)	--	5	0.0068	--	BACT	Annual

III. Emission Estimates

Source Name	Heat Rating	VOC	NO_X	CO	NH_3	SO_2	H_2SO_4	$PM/PM_{10}/PM_{2.5}$
	MMbtu/hr	Hourly Emissions (lb/hr)						
Large-Frame Combustion Turbine	3715.57	9.53	34.25	75.04	50.62	5.21	0.80	10.07

Source Name	Annual Hours of Operation	Heat Rating	VOC	NO_X	CO	NH_3	SO_2	H_2SO_4	$PM/PM_{10}/PM_{2.5}$
	hr	MMbtu/yr	Annual Emissions (tpy)						
Large Combustion Turbine	8760	32,548,369	41.74	150.02	328.66	110.86	22.83	3.49	44.13

IV. VOC Speciation - AP-42 Table 3.1-3 Pollutants/40 CFR 63 YYYY

Pollutant	Emission Factor (lb/MMBtu)	Emissions per Turbine	
		lb/hr	tpy
1,3 butadiene	4.30E-07	1.60E-03	7.00E-03
Acetaldehyde	4.00E-05	1.49E-01	6.51E-01
Acrolein	6.40E-06	2.38E-02	1.04E-01
Benzene	1.20E-05	4.46E-02	1.95E-01
Ethylbenzene	3.20E-05	1.19E-01	5.21E-01
Formaldehyde	2.19E-04	8.13E-01	3.56E+00
Naphthalene	1.30E-06	4.83E-03	2.12E-02
Propylene Oxide	2.90E-05	1.08E-01	4.72E-01
Toluene	1.30E-04	4.83E-01	2.12E+00
Xylene	6.40E-05	2.38E-01	1.04E+00

Appendix B-4c: Large-Frame GE 7HA.03 H-class Turbine

V. Calculations - Large-Frame GE 7HA.03 H-class Turbine

Gaseous Pollutant Sample Calculation - Volatile Organic Compounds (VOC)

Emission Factor 2.0 ppmvd @ 15% O_2

Emission Factor Conversion using F-Factor Method

Emission Factor = 2.0 ppmvd / 8710 dscf/MMBtu / 4.15584E-08 lb/scf / 20.9/(20.9-15) = 0.0026 lb/MMBtu

K Factor for VOC = 1/1000000 ppm / 16 lb/lb-mol / 385 lb-mol/scf = 4.15584E-08 (lb/scf/ppm)

Short-term Emission Calculation (VOC)

0.0026 lb/MMBtu × 3715.57 MMBtu/hr = 9.53 lb VOC/hr

Annual Emission Calculation (VOC)

0.0026 lb/MMBtu × 32,548,369 MMBtu/yr / 2,000 lb/ton = 41.74 tons VOC/yr

Gaseous Pollutant Sample Calculation - Oxides of Nitrogen (NO_X)

Emission Factor 2.5 ppmvd @ 15% O_2

Emission Factor Conversion using F-Factor Method

Emission Factor = 2.5 ppmvd / 8710 dscf/MMBtu / 1.19506E-07 lb/scf / 20.9/(20.9-15) = 0.0092 lb/MMBtu

K Factor for NO_X = 1/1000000 ppm / 46.01 lb/lb-mol / 385 lb-mol/scf = 1.19506E-07 (lb/scf/ppm)

Short-term Emission Calculation (NO_X)

0.0092 lb/MMBtu × 3715.57 MMBtu/hr = 34.25 lb NO_X/hr

Annual Emission Calculation (NO_X)

0.0092 lb/MMBtu × 32,548,369 MMBtu/yr / 2,000 lb/ton = 150.02 tons NO_X/yr

Gaseous Pollutant Sample Calculation - Carbon Monoxide (CO)

Emission Factor 9.0 ppmvd @ 15% O_2

Emission Factor Conversion using F-Factor Method

Emission Factor = 9.0 ppmvd / 8710 dscf/MMBtu / 7.27273E-08 lb/scf / 20.9/(20.9-15) = 0.0202 lb/MMBtu

K Factor for CO = 1/1000000 ppm / 28 lb/lb-mol / 385 lb-mol/scf = 7.27273E-08 (lb/scf/ppm)

Short-term Emission Calculation (CO)

0.0202 lb/MMBtu × 3715.57 MMBtu/hr = 75.04 lb CO/hr

Annual Emission Calculation (CO)

0.0202 lb/MMBtu × 32,548,369 MMBtu/yr / 2,000 lb/ton = 328.66 tons CO/yr

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Appendix B-4c: Large-Frame GE 7HA.03 H-class Turbine

Gaseous Pollutant Sample Calculation - Ammonia (NH_3)

Emission Factor (Hourly) 10.0 ppmvd @ 15% O_2

Emission Factor (Annual) 5.0 ppmvd @ 15% O_2

Emission Factor Conversion using F-Factor Method

ssion Factor (Hourly) = 10.0 ppmvd | 8710 dscf/MMBtu | 4.41558E-08 lb/scf | 20.9/(20.9-15) = 0.0136 lb/MMBtu

sion Factor (Annual) = 5.0 ppmvd | 8710 dscf/MMBtu | 4.41558E-08 lb/scf | 20.9/(20.9-15) = 0.0068 lb/MMBtu

K Factor for NH_3 = 1/1000000 ppm | 17 lb/lb-mol | 385 lb-mol/scf = 4.41558E-08 (lb/scf/ppm)

Short-term Emission Calculation (NH_3)

0.0136 lb/MMBtu | 3715.57 MMBtu/hr = 50.62 lb NH_3/hr

Annual Emission Calculation (NH_3)

0.0068 lb/MMBtu | 32,548,369 MMBtu/yr | 2,000 lb/ton = 110.86 tons NH_3/yr

Sample Calculation - Sulfur Dioxide (SO_2)

Emission Factor 0.5 grains sulfur/100 scf

Emission Factor Conversion (Grains to lb/MMscf)

Emission Factor = 0.5 grains sulfur/100 scf | 1,000,000 scf/MMscf | 7,000 grains/lb | 64.1/32 MW SO_2/MW Sulfur = 1.4308 lb/MMscf

Emission Factor Conversion (lb/MMscf to lb/MMBtu)

Emission Factor = 1.4 lb/MMscf | 1,020 scf/btu = 0.00140 lb/MMBtu

Short-term Emission Calculation (SO_2)

0.0014 lb/MMBtu | 3715.57 MMBtu/hr = 5.21 lb SO_2/hr

Annual Emission Calculation (SO_2)

0.0014 lb/MMBtu | 32,548,369 MMBtu/yr | 2,000 lb/ton = 22.83 tons SO_2/yr

Sample Calculation - Sulfuric Acid (H_2SO_4)

SO_2 Emission Factor 1.43 lb/MMscf

H_2SO_4 Emission Factor

Emission Factor = 1.43 lb/MMscf | 10% | 98.1/64.1 MW H_2SO_4/MW SO_2 = 0.2190 lb/MMscf

Emission Factor Conversion (lb/MMscf to lb/MMBtu)

Emission Factor = 0.2 lb/MMscf | 1,020 scf/btu = 0.00021 lb/MMBtu

Short-term Emission Calculation (H_2SO_4)

0.00021 lb/MMBtu | 3715.57 MMBtu/hr = 0.80 lb H_2SO_4/hr

Annual Emission Calculation (H_2SO_4)

0.00021 lb/MMBtu | 32,548,369 MMBtu/yr | 2,000 lb/ton = 3.49 tons H_2SO_4/yr

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Appendix B-4c: Large-Frame GE 7HA.03 H-class Turbine

Sample Calculation - Particulate Matter ($PM/PM_{10}/PM_{2.5}$)

Worst-Case PM Emissions from Turbine before SCR	9.00	lb/hr
SO_2 Emission Factor	1.43	lb/MMscf

$(NH4)_2SO_4$ Emission Factor

Emission Factor =	1.43 lb/MMscf	10%	132.14 / 64.1 MW $(NH4)_2SO_4$ / MW SO_2	=	0.2950 lb/MMscf

$(NH4)_2SO_4$ Emission Factor Conversion (lb/MMscf to lb/MMBtu)

Emission Factor =	0.2950 lb/MMscf	1,020 scf/btu	=	0.00029 lb/MMBtu

Note that the ammonium sulfate (NH4)2SO4 molecule, which is a secondarily-formed particulate in the SCR, calculated as a conservative estimate.

Short-term Emission Calculation ($PM/PM_{10}/PM_{2.5}$)

9.00 lb/hr	+	0.0003 lb/MMBtu	3715.57 MMBtu/hr	=	10.07 lb PM/PM_{10}/$PM_{2.5}$/hr

Annual Emission Calculation ($PM/PM_{10}/PM_{2.5}$)

10.07 lb PM/PM10/PM2.5/hr	8,760 hr/yr	1 ton/2,000 lb	=	44.13 tons PM/PM_{10}/$PM_{2.5}$/yr

VOC Speciation Sample Calculation - 1,3 Butadiene

Emission Factor	4.30E-07	lb/MMBtu

Short-term Emission Calculation (1,3 Butadiene)

4.30E-07 lb/MMBtu	3715.57 MMBtu/hr	=	1.60E-03 lb 1,3 Butadiene/hr

Annual Emission Calculation (1,3 Butadiene)

4.30E-07 lb/MMBtu	32,548,369 MMBtu/yr	1 ton/2,000 lb	=	7.00E-03 tons 1,3 Butadiene/yr

VOC Speciation Sample Calculation - Formaldehyde

Emission Factor	91.0	ppbvd @ 15% O_2
Emission Factor	0.091	ppmvd @ 15% O_2

Emission Factor Conversion using F-Factor Method

Emission Factor =	0.091 ppmvd	8710 dscf/MMBtu	7.79221E-08 lb/scf	20.9 / 20.9-15	=	2.19E-04 lb/MMBtu

Factor for Formaldehyde =

1/1000000 ppm	30 lb/lb-mol	385 lb-mol/scf	=	7.79221E-08 (lb/scf/ppm)

Short-term Emission Calculation (Formaldehyde)

0.0002 lb/MMBtu	3715.57 MMBtu/hr	=	8.13E-01 lb Formaldehyde/hr

Annual Emission Calculation (Formaldehyde)

0.0002 lb/MMBtu	32,548,369 MMBtu/yr	1 ton/2,000 lb	=	3.56E+00 tons Formaldehyde/yr

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Appendix B-4d: Large-Frame Siemens 9000 HL-class Turbine

Emissions from the Siemens 9000 large turbines are calculated using a combination of vendor specs and BACT. Annual emissions are calculated assuming 8760 hours of operation annually. Note that the vendor did not provide PM or VOC emission factors for this turbine.

I. Basis

An SCR will be installed to control NOX emissions. Ammonia slip will be limited to 10 ppm on an three-hour basis and 5 ppm on an annual basis. Exit formaldehyde concentration was calculated at 91 ppb at 15% O2 per 40 CFR 63 Subpart YYYY.

Sulfuric Acid (H2SO4) emissions are calculated using an vendor-provided estimate of a 10% molar conversion ratio of SO2 to SO3- in the SCR and oxidation catalyst, based on vendor feedback, and conservatively assuming each SO3- molecule forms one H2SO4 molecule. Additionally, it was assumed each SO3- molecule may form 1 ammonium sulfate (NH4)2SO4 molecule, which is a particulate. This was added to the PM emission factor from the vendor for a conservative estimate.

II. Emission Factors: Natural Gas

Pollutant	Emission Factors[1]				Basis	Averaging Time
	lb/mmscf	ppmv	lb/MMbtu	lb/hr		
VOC	--	1	0.0013	--	Vendor Data; BACT guarantee. As methane.	3-hr Average
NOx	--	2.5	0.0092	--	Vendor Data; BACT guarantee	3-hr Average
CO	--	9	0.0202	--	Vendor Data; BACT guarantee	3-hr Average
PM / PM10 / PM2.5	--	--	--	10.00	Vendor Data Worst-Case	1-hr Average
SO2	1.43	--	0.00140	--	Fuel Analysis	1-hr Average
H2SO4	0.22		0.00021	--	Fuel Analysis	1-hr Average
$(NH4)_2SO4$	0.29		0.00029	--	Fuel Analysis	1-hr Average
NH_3 (Hourly)	--	10	0.0136	--	BACT	3-hr Average
NH_3 (Annual)	--	5	0.0068	--	BACT	Annual

III. Emissions Criteria

Source Name	Heat Rating	VOC	NO_X	CO	NH_3	SO_2	H_2SO_4	$PM/PM_{10}/PM_{2.5}$
	MMbtu/hr	Hourly Emissions (lb/hr)						
Large-Frame Combustion Turbine	3338.94	4.28	30.78	67.43	45.49	4.68	0.72	10.97

Source Name	Annual Hours of Operation	Heat Rating	VOC	NO_X	CO	NH_3	SO_2	H_2SO_4	$PM/PM_{10}/PM_{2.5}$
	hr	MMbtu/yr	Annual Emissions (tpy)						
Large Combustion Turbine	8760	29,249,108	18.75	134.81	295.35	99.62	20.51	3.14	48.03

IV. VOC Speciation - AP-42 Table 3.1-3 Pollutants/40 CFR 63 YYYY

Pollutant	Emission Factor (lb/MMBtu)	Emissions per Turbine	
		lb/hr	tpy
1,3 butadiene	4.30E-07	1.44E-03	6.29E-03
Acetaldehyde	4.00E-05	1.34E-01	5.85E-01
Acrolein	6.40E-06	2.14E-02	9.36E-02
Benzene	1.20E-05	4.01E-02	1.75E-01
Ethylbenzene	3.20E-05	1.07E-01	4.68E-01
Formaldehyde	2.19E-04	7.31E-01	3.20E+00
Naphthalene	1.30E-06	4.34E-03	1.90E-02
Propylene Oxide	2.90E-05	9.68E-02	4.24E-01
Toluene	1.30E-04	4.34E-01	1.90E+00
Xylene	6.40E-05	2.14E-01	9.36E-01

Appendix B-4d: Large-Frame Siemens 9000 HL-class Turbine

V. Calculations - Large-Frame Siemens 9000 HL-class Turbine

Gaseous Pollutant Sample Calculation - Volatile Organic Compounds (VOC)

Emission Factor 1.0 ppmvd @ 15% O_2

Emission Factor Conversion using F-Factor Method

Emission Factor = 1.0 ppmvd / 8710 dscf/MMBtu × 4.15584E-08 lb/scf × 20.9/(20.9-15) = 0.0013 lb/MMBtu

K Factor for VOC = 1/1000000 × 16 lb/lb-mol × 385 scf/lb-mol = 4.15584E-08 (lb/scf/ppm)

Short-term Emission Calculation (VOC)

0.0013 lb/MMBtu × 3338.94 MMBtu/hr = 4.28 lb VOC/hr

Annual Emission Calculation (VOC)

0.0013 lb/MMBtu × 29,249,108 MMBtu/yr × ton/2,000 lb = 18.75 tons VOC/yr

Gaseous Pollutant Sample Calculation - Oxides of Nitrogen (NO_X)

Emission Factor 2.5 ppmvd @ 15% O_2

Emission Factor Conversion using F-Factor Method

Emission Factor = 2.5 ppmvd / 8710 dscf/MMBtu × 1.19506E-07 lb/scf × 20.9/(20.9-15) = 0.0092 lb/MMBtu

K Factor for NO_X = 1/1000000 × 46.01 lb/lb-mol × 385 scf/lb-mol = 1.19506E-07 (lb/scf/ppm)

Short-term Emission Calculation (NO_X)

0.0092 lb/MMBtu × 3338.94 MMBtu/hr = 30.78 lb NO_X/hr

Annual Emission Calculation (NO_X)

0.0092 lb/MMBtu × 29,249,108 MMBtu/yr × ton/2,000 lb = 134.81 tons NO_X/yr

Gaseous Pollutant Sample Calculation - Carbon Monoxide (CO)

Emission Factor 9.0 ppmvd @ 15% O_2

Emission Factor Conversion using F-Factor Method

Emission Factor = 9.0 ppmvd / 8710 dscf/MMBtu × 7.27273E-08 lb/scf × 20.9/(20.9-15) = 0.0202 lb/MMBtu

K Factor for CO = 1/1000000 × 28 lb/lb-mol × 385 scf/lb-mol = 7.27273E-08 (lb/scf/ppm)

Short-term Emission Calculation (CO)

0.0202 lb/MMBtu × 3338.94 MMBtu/hr = 67.43 lb CO/hr

Annual Emission Calculation (CO)

0.0202 lb/MMBtu × 29,249,108 MMBtu/yr × ton/2,000 lb = 295.35 tons CO/yr

Gaseous Pollutant Sample Calculation - Ammonia (NH_3)

Emission Factor (Hourly) 10.0 ppmvd @ 15% O_2

Emission Factor (Annual) 5.0 ppmvd @ 15% O_2

Emission Factor Conversion using F-Factor Method

sion Factor (Hourly) = 10.0 ppmvd / 8710 dscf/MMBtu × 4.41558E-08 lb/scf × 20.9/(20.9-15) = 0.0136 lb/MMBtu

sion Factor (Annual) = 5.0 ppmvd / 8710 dscf/MMBtu × 4.41558E-08 lb/scf × 20.9/(20.9-15) = 0.0068 lb/MMBtu

K Factor for NH_3 = 1/1000000 × 17 lb/lb-mol × 385 scf/lb-mol = 4.41558E-08 (lb/scf/ppm)

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Appendix B-4d: Large-Frame Siemens 9000 HL-class Turbine

Short-term Emission Calculation (NH_3)

0.0136	lb/MMBtu	3338.94	MMBtu/hr	=	45.49	lb NH_3/hr	

Annual Emission Calculation (NH_3)

0.0068	lb/MMBtu	29,249,108	MMBtu/yr	ton/2,000 lb	=	99.62	tons NH_3/yr

Sample Calculation - Sulfur Dioxide (SO_2)

Emission Factor 0.5 grains sulfur/100 scf

Emission Factor Conversion (Grains to lb/MMscf)

Emission Factor =	0.5	grains sulfur/100 scf	1,000,000	scf/MMscf		lb/grains	64.1	MW SO_2/MW Sulfur	=	1.4308	lb/MMscf
					7,000		32				

Emission Factor Conversion (lb/MMscf to lb/MMBtu)

Emission Factor =	1.4	lb/MMscf	1,020	scf/btu	=	0.00140	lb/MMBtu

Short-term Emission Calculation (SO_2)

0.0014	lb/MMBtu	3338.94	MMBtu/hr	=	4.68	lb SO_2/hr	

Annual Emission Calculation (SO_2)

0.0014	lb/MMBtu	29,249,108	MMBtu/yr	ton/2,000 lb	=	20.51	tons SO_2/yr

Sample Calculation - Sulfuric Acid (H_2SO_4)

SO_2 Emission Factor 1.43 lb/MMscf

H_2SO_4 Emission Factor

Emission Factor =	1.43	lb/MMscf	10%	98.1/64.1	MW H_2SO_4/MW SO_2	=	0.2190	lb/MMscf	

Emission Factor Conversion (lb/MMscf to lb/MMBtu)

Emission Factor =	0.2	lb/MMscf	1,020	scf/btu	=	0.00021	lb/MMBtu

Short-term Emission Calculation (H_2SO_4)

0.00021	lb/MMBtu	3338.94	MMBtu/hr	=	0.72	lb H_2SO_4/hr	

Annual Emission Calculation (H_2SO_4)

0.00021	lb/MMBtu	29,249,108	MMBtu/yr	ton/2,000 lb	=	3.14	tons H_2SO_4/yr

Sample Calculation - Particulate Matter ($PM/PM_{10}/PM_{2.5}$)

Worst-Case PM Emissions from Turbine before SCR 10.00 lb/hr

SO_2 Emission Factor 1.43 lb/MMscf

$(NH4)_2SO_4$ Emission Factor

Emission Factor =	1.43	lb/MMscf	10%	132.14/64.1	MW $(NH4)_2SO_4$/MW SO_2	=	0.2950	lb/MMscf	

$(NH4)_2SO_4$ Emission Factor Conversion (lb/MMscf to lb/MMBtu)

Emission Factor =	0.2950	lb/MMscf	1,020	scf/btu	=	0.00029	lb/MMBtu

Note that the ammonium sulfate (NH4)2SO4 molecule, which is a secondarily-formed particulate in the SCR, calculated as a conservative estimate.

Short-term Emission Calculation ($PM/PM_{10}/PM_{2.5}$)

10.00	lb/hr	+	0.0003	lb/MMBtu	3338.94	MMBtu/hr	=	10.97	lb $PM/PM_{10}/PM_{2.5}$/hr	

Annual Emission Calculation ($PM/PM_{10}/PM_{2.5}$)

10.97	lb PM/PM10/PM2.5/hr	8,760	hr/yr	ton/2,000 lb	=	48.03	tons $PM/PM_{10}/PM_{2.5}$/yr

Appendix B-4d: Large-Frame Siemens 9000 HL-class Turbine

VOC Speciation Sample Calculation - 1,3 Butadiene

Emission Factor 4.30E-07 lb/MMBtu

Short-term Emission Calculation (1,3 Butadiene)

$$\frac{4.30E\text{-}07\ \text{lb}}{\text{MMBtu}} \times 3338.94\ \frac{\text{MMBtu}}{\text{hr}} = 1.44E\text{-}03\ \frac{\text{lb 1,3 Butadiene}}{\text{hr}}$$

Annual Emission Calculation (1,3 Butadiene)

$$\frac{4.30E\text{-}07\ \text{lb}}{\text{MMBtu}} \times 29{,}249{,}108\ \frac{\text{MMBtu}}{\text{yr}} \times \frac{\text{ton}}{2{,}000\ \text{lb}} = 6.29E\text{-}03\ \frac{\text{tons 1,3 Butadiene}}{\text{yr}}$$

VOC Speciation Sample Calculation - Formaldehyde

Emission Factor 91.0 ppbvd @ 15% O_2

Emission Factor 0.091 ppmvd @ 15% O_2

Emission Factor Conversion using F-Factor Method

$$\text{Emission Factor} = 0.091\ \text{ppmvd} \times 8710\ \frac{\text{dscf}}{\text{MMBtu}} \times 7.79221E\text{-}08\ \frac{\text{lb}}{\text{scf}} \times \frac{20.9}{20.9\text{-}15} = 2.19E\text{-}04\ \frac{\text{lb}}{\text{MMBtu}}$$

$$\text{Factor for Formaldehyde} = \frac{1}{1000000}\ \text{ppm} \times 30\ \frac{\text{lb}}{\text{lb-mol}} \times \frac{\text{lb-mol}}{385\ \text{scf}} = 7.79221E\text{-}08\ \text{(lb/scf/ppm)}$$

Short-term Emission Calculation (Formaldehyde)

$$\frac{0.0002\ \text{lb}}{\text{MMBtu}} \times 3338.94\ \frac{\text{MMBtu}}{\text{hr}} = 7.31E\text{-}01\ \frac{\text{lb Formaldehyde}}{\text{hr}}$$

Annual Emission Calculation (Formaldehyde)

$$\frac{0.0002\ \text{lb}}{\text{MMBtu}} \times 29{,}249{,}108\ \frac{\text{MMBtu}}{\text{yr}} \times \frac{\text{ton}}{2{,}000\ \text{lb}} = 3.20E+00\ \frac{\text{tons Formaldehyde}}{\text{yr}}$$

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Appendix B-4e: Large-Frame Mitsubishi M501JAC J-class Turbine

Emissions from the Mitsubishi M501JAC large turbines are calculated using a combination of vendor specs and BACT. Annual emissions are calculated assuming 8760 hours of operation annually.

I. Basis

An SCR will be installed to control NOX emissions. Ammonia slip will be limited to 10 ppm on an three-hour basis and 5 ppm on an annual basis. Exit formaldehyde concentration was calculated at 91 ppb at 15% O2 per 40 CFR 63 Subpart YYYY.

Sulfuric Acid (H2SO4) emissions are calculated using an vendor-provided estimate of a 10% molar conversion ratio of SO2 to SO3- in the SCR and oxidation catalyst, based on vendor feedback, and conservatively assuming each SO3- molecule forms one H2SO4 molecule. Additionally, it was assumed each SO3- molecule may form 1 ammonium sulfate (NH4)2SO4 molecule, which is a particulate. This was added to the PM emission factor from the vendor for a conservative estimate.

II. Emission Factors: Natural Gas

Pollutant	Emission Factors				Basis	Averaging Time
	lb/mmscf	ppmv	lb/MMbtu	lb/hr		
VOC	--	1	0.0013	--	Vendor Data; BACT guarantee. As methane.	3-hr Average
NOx	--	2.5	0.0092	--	Vendor Data; BACT guarantee	3-hr Average
CO	--	9	0.0202	--	Vendor Data; BACT guarantee	3-hr Average
PM / PM10 / PM2.5	--	--	--	10.00	Vendor Data Worst-Case	1-hr Average
SO2	1.43	--	0.00140	--	Fuel Analysis	1-hr Average
H2SO4	0.22		0.00021	--	Fuel Analysis	1-hr Average
$(NH4)_2SO4$	0.29		0.00029	--	Fuel Analysis	1-hr Average
NH_3 (Hourly)	--	10	0.0136	--	BACT	3-hr Average
NH_3 (Annual)	--	5	0.0068	--	BACT	Annual

III. Emission Estimates

Source Name	Heat Rating	VOC	NO_X	CO	NH_3	SO_2	H_2SO_4	$PM/PM_{10}/PM_{2.5}$
	MMbtu/hr	Hourly Emissions (lb/hr)						
Large-Frame Combustion Turbine	3817.06	4.89	35.19	77.09	52.00	5.35	0.82	11.10

Source Name	Annual Hours of Operation	Heat Rating	VOC	NO_X	CO	NH_3	SO_2	H_2SO_4	$PM/PM_{10}/PM_{2.5}$
	hr	MMbtu/yr	Annual Emissions (tpy)						
Large-Frame Combustion Turbine	8760	33,437,446	21.44	154.12	337.64	113.89	23.45	3.59	48.63

IV. VOC Speciation - AP-42 Table 3.1-3 Pollutants/40 CFR 63 YYYY

Pollutant	Emission Factor (lb/MMBtu)	Emissions per Turbine	
		lb/hr	tpy
1,3 butadiene	4.30E-07	1.64E-03	7.19E-03
Acetaldehyde	4.00E-05	1.53E-01	6.69E-01
Acrolein	6.40E-06	2.44E-02	1.07E-01
Benzene	1.20E-05	4.58E-02	2.01E-01
Ethylbenzene	3.20E-05	1.22E-01	5.35E-01
Formaldehyde	2.19E-04	8.35E-01	3.66E+00
Naphthalene	1.30E-06	4.96E-03	2.17E-02
Propylene Oxide	2.90E-05	1.11E-01	4.85E-01
Toluene	1.30E-04	4.96E-01	2.17E+00
Xylene	6.40E-05	2.44E-01	1.07E+00

Appendix B-4e: Large-Frame Mitsubishi M501JAC J-class Turbine

V. Calculations - Large-Frame Mitsubishi M501JAC J-class Turbine

Gaseous Pollutant Sample Calculation - Volatile Organic Compounds (VOC)

Emission Factor 1.0 ppmvd @ 15% O_2

Emission Factor Conversion using F-Factor Method

$$\text{Emission Factor} = \frac{1.0 \text{ ppmvd}}{} \times \frac{8710 \text{ dscf}}{\text{MMBtu}} \times \frac{4.15584\text{E-}08 \text{ lb}}{\text{scf}} \times \frac{20.9}{20.9\text{-}15} = 0.0013 \frac{\text{lb}}{\text{MMBtu}}$$

$$\text{K Factor for VOC} = \frac{1}{1000000} \frac{\text{ppm}}{} \times \frac{16 \text{ lb}}{\text{lb-mol}} \times \frac{\text{lb-mol}}{385 \text{ scf}} = 4.15584\text{E-}08 \text{ (lb/scf/ppm)}$$

Short-term Emission Calculation (VOC)

$$0.0013 \frac{\text{lb}}{\text{MMBtu}} \times 3817.06 \frac{\text{MMBtu}}{\text{hr}} = 4.89 \frac{\text{lb VOC}}{\text{hr}}$$

Annual Emission Calculation (VOC)

$$0.0013 \frac{\text{lb}}{\text{MMBtu}} \times 33{,}437{,}446 \frac{\text{MMBtu}}{\text{yr}} \times \frac{\text{ton}}{2{,}000 \text{ lb}} = 21.44 \frac{\text{tons VOC}}{\text{yr}}$$

Gaseous Pollutant Sample Calculation - Oxides of Nitrogen (NO_X)

Emission Factor 2.5 ppmvd @ 15% O_2

Emission Factor Conversion using F-Factor Method

$$\text{Emission Factor} = \frac{2.5 \text{ ppmvd}}{} \times \frac{8710 \text{ dscf}}{\text{MMBtu}} \times \frac{1.19506\text{E-}07 \text{ lb}}{\text{scf}} \times \frac{20.9}{20.9\text{-}15} = 0.0092 \frac{\text{lb}}{\text{MMBtu}}$$

$$\text{K Factor for } NO_X = \frac{1}{1000000} \frac{\text{ppm}}{} \times \frac{46.01 \text{ lb}}{\text{lb-mol}} \times \frac{\text{lb-mol}}{385 \text{ scf}} = 1.19506\text{E-}07 \text{ (lb/scf/ppm)}$$

Short-term Emission Calculation (NO_X)

$$0.0092 \frac{\text{lb}}{\text{MMBtu}} \times 3817.06 \frac{\text{MMBtu}}{\text{hr}} = 35.19 \frac{\text{lb } NO_X}{\text{hr}}$$

Annual Emission Calculation (NO_X)

$$0.0092 \frac{\text{lb}}{\text{MMBtu}} \times 33{,}437{,}446 \frac{\text{MMBtu}}{\text{yr}} \times \frac{\text{ton}}{2{,}000 \text{ lb}} = 154.12 \frac{\text{tons } NO_X}{\text{yr}}$$

Gaseous Pollutant Sample Calculation - Carbon Monoxide (CO)

Emission Factor 9.0 ppmvd @ 15% O_2

Emission Factor Conversion using F-Factor Method

$$\text{Emission Factor} = \frac{9.0 \text{ ppmvd}}{} \times \frac{8710 \text{ dscf}}{\text{MMBtu}} \times \frac{7.27273\text{E-}08 \text{ lb}}{\text{scf}} \times \frac{20.9}{20.9\text{-}15} = 0.0202 \frac{\text{lb}}{\text{MMBtu}}$$

$$\text{K Factor for CO} = \frac{1}{1000000} \frac{\text{ppm}}{} \times \frac{28 \text{ lb}}{\text{lb-mol}} \times \frac{\text{lb-mol}}{385 \text{ scf}} = 7.27273\text{E-}08 \text{ (lb/scf/ppm)}$$

Short-term Emission Calculation (CO)

$$0.0202 \frac{\text{lb}}{\text{MMBtu}} \times 3817.06 \frac{\text{MMBtu}}{\text{hr}} = 77.09 \frac{\text{lb CO}}{\text{hr}}$$

Annual Emission Calculation (CO)

$$0.0202 \frac{\text{lb}}{\text{MMBtu}} \times 33{,}437{,}446 \frac{\text{MMBtu}}{\text{yr}} \times \frac{\text{ton}}{2{,}000 \text{ lb}} = 337.64 \frac{\text{tons CO}}{\text{yr}}$$

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Appendix B-4e: Large-Frame Mitsubishi M501JAC J-class Turbine

Gaseous Pollutant Sample Calculation - Ammonia (NH_3)

Emission Factor (Hourly) 10.0 ppmvd @ 15% O_2

Emission Factor (Annual) 5.0 ppmvd @ 15% O_2

Emission Factor Conversion using F-Factor Method

ssion Factor (Hourly) = 10.0 ppmvd | 8710 dscf/MMBtu | 4.41558E-08 lb/scf | 20.9/(20.9-15) = 0.0136 lb/MMBtu

sion Factor (Annual) = 5.0 ppmvd | 8710 dscf/MMBtu | 4.41558E-08 lb/scf | 20.9/(20.9-15) = 0.0068 lb/MMBtu

K Factor for NH_3 = 1/1000000 ppm | 17 lb/lb-mol | 385 lb-mol/scf = 4.41558E-08 (lb/scf/ppm)

Short-term Emission Calculation (NH_3)

0.0136 lb/MMBtu | 3817.06 MMBtu/hr = 52.00 lb NH_3/hr

Annual Emission Calculation (NH_3)

0.0068 lb/MMBtu | 33,437,446 MMBtu/yr | 2,000 lb/ton = 113.89 tons NH_3/yr

Sample Calculation - Sulfur Dioxide (SO_2)

Emission Factor 0.5 grains sulfur/100 scf

Emission Factor Conversion (Grains to lb/MMscf)

Emission Factor = 0.5 grains sulfur/100 scf | 1,000,000 scf/MMscf | 7,000 grains/lb | 64.1/32 MW SO_2/MW Sulfur = 1.4308 lb/MMscf

Emission Factor Conversion (lb/MMscf to lb/MMBtu)

Emission Factor = 1.4 lb/MMscf | 1,020 scf/btu = 0.00140 lb/MMBtu

Short-term Emission Calculation (SO_2)

0.0014 lb/MMBtu | 3817.06 MMBtu/hr = 5.35 lb SO_2/hr

Annual Emission Calculation (SO_2)

0.0014 lb/MMBtu | 33,437,446 MMBtu/yr | 2,000 lb/ton = 23.45 tons SO_2/yr

Sample Calculation - Sulfuric Acid (H_2SO_4)

SO_2 Emission Factor 1.43 lb/MMscf

H_2SO_4 Emission Factor

Emission Factor = 1.43 lb/MMscf | 10% | 98.1/64.1 MW H_2SO_4/MW SO_2 = 0.2190 lb/MMscf

Emission Factor Conversion (lb/MMscf to lb/MMBtu)

Emission Factor = 0.2 lb/MMscf | 1,020 scf/btu = 0.00021 lb/MMBtu

Short-term Emission Calculation (H_2SO_4)

0.00021 lb/MMBtu | 3817.06 MMBtu/hr = 0.82 lb H_2SO_4/hr

Annual Emission Calculation (H_2SO_4)

0.00021 lb/MMBtu | 33,437,446 MMBtu/yr | 2,000 lb/ton = 3.59 tons H_2SO_4/yr

Appendix B-4e: Large-Frame Mitsubishi M501JAC J-class Turbine

Sample Calculation - Particulate Matter ($PM/PM_{10}/PM_{2.5}$)

Worst-Case PM Emissions from Turbine before SCR	10.00	lb/hr
SO_2 Emission Factor	1.43	lb/MMscf

$(NH4)_2SO_4$ Emission Factor

Emission Factor = 1.43 lb/MMscf × 10% × 132.14 / 64.1 (MW $(NH4)_2SO_4$ / MW SO_2) = 0.2950 lb/MMscf

$(NH4)_2SO_4$ Emission Factor Conversion (lb/MMscf to lb/MMBtu)

Emission Factor = 0.2950 lb/MMscf × 1,020 scf/btu = 0.00029 lb/MMBtu

Note that the ammonium sulfate (NH4)2SO4 molecule, which is a secondarily-formed particulate in the SCR, calculated as a conservative estimate.

Short-term Emission Calculation ($PM/PM_{10}/PM_{2.5}$)

10.00 lb/hr + 0.0003 lb/MMBtu × 3817.06 MMBtu/hr = 11.10 lb $PM/PM_{10}/PM_{2.5}$/hr

Annual Emission Calculation ($PM/PM_{10}/PM_{2.5}$)

11.10 lb PM/PM10/PM2.5/hr × 8,760 hr/yr × ton/2,000 lb = 48.63 tons $PM/PM_{10}/PM_{2.5}$/yr

VOC Speciation Sample Calculation - 1,3 Butadiene

Emission Factor	4.30E-07	lb/MMBtu

Short-term Emission Calculation (1,3 Butadiene)

4.30E-07 lb/MMBtu × 3817.06 MMBtu/hr = 1.64E-03 lb 1,3 Butadiene/hr

Annual Emission Calculation (1,3 Butadiene)

4.30E-07 lb/MMBtu × 33,437,446 MMBtu/yr × ton/2,000 lb = 7.19E-03 tons 1,3 Butadiene/yr

VOC Speciation Sample Calculation - Formaldehyde

Emission Factor	91.0	ppbvd @ 15% O_2
Emission Factor	0.091	ppmvd @ 15% O_2

Emission Factor Conversion using F-Factor Method

Emission Factor = 0.091 ppmvd × 8710 dscf/MMBtu × 7.79221E-08 lb/scf × 20.9 / (20.9-15) = 2.19E-04 lb/MMBtu

Factor for Formaldehyde = 1/1000000 ppm × 30 lb/lb-mol × lb-mol/385 scf = 7.79221E-08 (lb/scf/ppm)

Short-term Emission Calculation (Formaldehyde)

0.0002 lb/MMBtu × 3817.06 MMBtu/hr = 8.35E-01 lb Formaldehyde/hr

Annual Emission Calculation (Formaldehyde)

0.0002 lb/MMBtu × 33,437,446 MMBtu/yr × ton/2,000 lb = 3.66E+00 tons Formaldehyde/yr

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Appendix B-5: Turbine Startup/Shutdown Emissions and Durations

Large-frame Gas Turbines (H-class, HL-class, or J-class GT)

Mode - Natural Gas	~ Time	Total Pounds Per Event		
	(minutes)	NOx	CO	VOC
Purge Cycle	9.0	175.0	585.0	72.0
Starting Cycle	7.0			
Loading Cycle	13.0			
TOTAL:	**29.0**			

Mode - Natural Gas	~ Time	Total Pounds Per Event		
	(minutes)	NOx	CO	VOC
Unloading Cycle	14.0	175.0	585.0	72.0
Shutdown Cycle	24.0			
TOTAL:	**38.0**			

Siemens SGT-800 Gas Turbines

Mode - Natural Gas	~ Time	Total Pounds Per Event		
	(minutes)	NOx	CO	VOC
Purge Cycle	2.0	14.5	111.0	9.3
Starting Cycle	5.3			
Loading Cycle	16.7			
TOTAL:	**24.0**			

Mode - Natural Gas	~ Time	Total Pounds Per Event		
	(minutes)	NOx	CO	VOC
Unloading Cycle	17.5	12.8	92.0	10.3
Idle/Shutdown Cycle	9.2			
TOTAL:	**26.7**			

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Appendix B-6: Turbine Startup/Shutdown Emissions Summary

Number of Annual Startup Events Per Turbine [(1)]	**52**
Number of Annual Shutdown Events Per Turbine [(1)]	**52**

[(1)] This is an estimate for purposes of calculating annual emissions. It is not a representation of total number of annual MSS events.

		Hourly Emissions per Turbine								Annual Emissions per Turbine			
Siemens SGT-800 Turbines (EPNs CT-1A through CT-21A)	**Time Period**	**Regular Operations (lb/hr)**	**Startup Emissions (lbs)**	**Startup Duration (mins)**	**Hourly Startup Emissions plus Remaining Routine (lb/hr)**	**Shutdown Emissions (lbs)**	**Shutdown Duration (mins)**	**Hourly Shutdown Emissions plus Remaining Routine (lb/hr)**	**Worst-Case Hourly Emissions (lb/hr)**	**Regular Operations (tpy)**	**Total Emissions From Startup (tpy)**	**Total Emissions From Shutdown (tpy)**	**Total Annual Emissions (tpy)**
VOC	1-hr	1.37	9.30	24.00	10.12	10.30	26.67	11.06	11.06				
	Annual									5.98	0.2418	0.2678	6.49
NOX	1-hr	4.86	14.50	24.00	17.42	12.80	26.67	15.50	17.42				
	Annual									21.28	0.377	0.3328	21.99
CO	1-hr	5.91	111.00	24.00	114.55	92.00	26.67	95.29	114.55				
	Annual									25.90	2.886	2.392	31.18
NH3	1-hr	7.18							7.18				
	Annual									15.73			15.73
SO2	1-hr	0.74							0.74				
	Annual									3.24			3.24
H2SO4	1-hr	0.11							0.11				
	Annual									0.50			0.50
PM/PM10/PM2.5	1-hr	3.25							3.25				
	Annual									14.25			14.25

		Hourly Emissions per Turbine								Annual Emissions per Turbine			
Large-frame Gas Turbines H-class, HL-class, or J-class GT (EPNs CT-1B through CT-14B)	**Time Period**	**Regular Operations (lb/hr)**	**Startup Emissions (lbs)**	**Startup Duration (mins)**	**Hourly Startup Emissions plus Remaining Routine (lb/hr)**	**Shutdown Emissions (lbs)**	**Shutdown Duration (mins)**	**Hourly Shutdown Emissions plus Remaining Routine (lb/hr)**	**Worst-Case Hourly Emissions (lb/hr)**	**Regular Operations (tpy)**	**Total Emissions From Startup (tpy)**	**Total Emissions From Shutdown (tpy)**	**Total Annual Emissions (tpy)**
VOC	1-hr	9.79	72.00	29.00	77.06	72.00	38.00	75.59	77.06				
	Annual									42.88	1.872	1.872	46.62
NOX	1-hr	35.19	175.00	29.00	193.18	175.00	38.00	187.90	193.18				
	Annual									154.12	4.55	4.55	163.22
CO	1-hr	77.09	585.00	29.00	624.83	585.00	38.00	613.27	624.83				
	Annual									337.64	15.21	15.21	368.06
NH3	1-hr	52.00							52.00				
	Annual									113.89			113.89
SO2	1-hr	5.35							5.35				
	Annual									23.45			23.45
H2SO4	1-hr	0.82							0.82				
	Annual									3.59			3.59
PM/PM10/PM2.5	1-hr	11.10							11.10				
	Annual									48.63			48.63

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Appendix B-7: Supplemental Engine Generators

I. Basis

Supplemental engine generators will be used to support gas turbine startup activities and charging Battery Energy Storage Systems (BESS). The proposed gas engine generating sets are two Wärtsilä 18V50SG, which is a four-stroke, spark-ignited gas engine generating set. The engines produce 18.82 MW of electrical power.

The engines are subject to 40 CFR 60 Subpart JJJJ. Vendor guarantees and 40 CFR 60 Subpart JJJJ emission limits were utilized in the calculations, where applicable. For emission rates not specified in 40 CFR 60 Subpart JJJJ, values from AP-42 Chapter 3.2 were utilized. Short-term emissions were calculated based on the maximum rated power output of the engine. Annual emissions were based on the maximum rated power of the engine and annual hours of operation.

II. Supplemental Engines - Natural gas

Pollutant	Emission Factor	
	g/hp-hr	Source
CO	2.00	40 CFR Subpart JJJJ (Stationary Non-Emergency SI Engines)
$PM/PM_{10}/PM_{2.5}$ (Filterable + Condensable)	1.15E-02	AP-42 Chapter 3.2, Table 3.2-2, 4-Stroke Lean Burn
NO_X	0.70	Equipment Vendor Guarantee, TCEQ BACT
VOC	0.70	40 CFR Subpart JJJJ (Stationary Non-Emergency SI Engines)
SO_2	0.0017	AP-42 Chapter 3.2, Table 3.2-2, 4-Stroke Lean Burn

III. Emissions Criteria

FIN	EPN	Engine	Horsepower (HP)	Annual Hours of Operation [1]	VOC		NO_X		CO		SO_2		$PM/PM_{10}/PM_{2.5}$	
					lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy
ENGINE-1	ENGINE-1	Supplemental Engine Generator 1	25,238	1,000	38.95	19.47	38.95	19.47	111.28	55.64	0.09	0.05	0.64	0.32
ENGINE-2	ENGINE-2	Supplemental Engine Generator 2	25,238	1,000	38.95	19.47	38.95	19.47	111.28	55.64	0.09	0.05	0.64	0.32

[1] This is an estimate for purposes of calculating annual emissions. It is not a representation of total number of annual operating hours.

IV. Example Calculations - ENGINE-1

Example Short-term Emission Calculation (NO_X)

$$\frac{7.00E\text{-}01\ \frac{g}{hp\text{-}hr} \times 25238\ hp \times 1\ hr \times \frac{1\ lb}{453.6\ g}}{1\ hr} = 38.95\ \frac{lb\ Nox}{hr}$$

Example Annual Emission Calculation (NO_X)

$$7.00E\text{-}01\ \frac{g}{hp\text{-}hr} \times 25238\ hp \times 1{,}000\ hr \times \frac{1\ yr}{2000\ lb} \times \frac{1\ lb}{453.6\ g} = 19.47\ tpy\ NOx$$

Appendix B-7: Supplemental Engine Generators

V. VOC Speciation - AP-42 Pollutants[1]

FIN	EPN	Engine	Engine Rating	Heat Rate	Heat Rating
			kW	Btu/kWh	MMBtu/hr
ENGINE-1	ENGINE-1	Supplemental Engine Generator 1	18,817	7321	137.76

[1] Emission factors taken from AP-42 Table 3.2-2, except for formaldehyde, which is based on the regulatory standard of 14 ppmvd at 15% O2 from 40 CFR 63 Subpart ZZZZ.

Pollutant	Emission Factor (lb/MMBtu)	Emissions per Supplemental Engine Generator	
		lb/hr	tpy
1,1,2,2-Tetrachloroethane	4.00E-05	5.51E-03	2.76E-03
1,1,2-Trichloroethane	3.18E-05	4.38E-03	2.19E-03
1,1-Dichloroethane	2.36E-05	3.25E-03	1.63E-03
1,2,3-Trimethylbenzene	2.30E-05	3.17E-03	1.58E-03
1,2,4-Trimethylbenzene	1.43E-05	1.97E-03	9.85E-04
1,2-Dichloroethane	2.36E-05	3.25E-03	1.63E-03
1,2-Dichloropropane	2.69E-05	3.71E-03	1.85E-03
1,3,5-Trimethylbenzene	3.38E-05	4.66E-03	2.33E-03
1,3 Butadiene	2.67E-04	3.68E-02	1.84E-02
1,3-Dichloropropene	2.64E-05	3.64E-03	1.82E-03
2-Methylnaphthalene	3.32E-05	4.57E-03	2.29E-03
2,2,4-Trimethylpentane	2.50E-04	3.44E-02	1.72E-02
Acenaphthene	1.25E-06	1.72E-04	8.61E-05
Acenaphthylene	5.53E-06	7.62E-04	3.81E-04
Acetaldehyde	8.36E-03	1.15E+00	5.76E-01
Acrolein	5.14E-03	7.08E-01	3.54E-01
Benzene	4.40E-04	6.06E-02	3.03E-02
Benzo(b)fluoranthene	1.66E-07	2.29E-05	1.14E-05
Benzo(e)pyrene	4.15E-07	5.72E-05	2.86E-05
Benzo(g,h,i)perylene	4.14E-07	5.70E-05	2.85E-05
Biphenyl	2.12E-04	2.92E-02	1.46E-02
Butane	5.41E-04	7.45E-02	3.73E-02
Butyr/isobutyraldehyde	1.01E-04	1.39E-02	6.96E-03
Carbon Tetrachloride	3.67E-05	5.06E-03	2.53E-03
Chlorobenzene	3.04E-05	4.19E-03	2.09E-03
Chloroethane	1.87E-06	2.58E-04	1.29E-04
Chloroform	2.85E-05	3.93E-03	1.96E-03
Chrysene	6.93E-07	9.55E-05	4.77E-05
Cyclopentane	2.27E-04	3.13E-02	1.56E-02
Ethane	1.05E-01	1.45E+01	7.23E+00
Ethylbenzene	3.97E-05	5.47E-03	2.73E-03
Ethylene Dibromide	4.43E-05	6.10E-03	3.05E-03
Fluoranthene	1.11E-06	1.53E-04	7.65E-05
Fluorene	5.67E-06	7.81E-04	3.91E-04
Formaldehyde	3.37E-02	4.64E+00	2.32E+00
Methanol	2.50E-03	3.44E-01	1.72E-01
Methylcyclohexane	1.23E-03	1.69E-01	8.47E-02
Methylene Chloride	2.00E-05	2.76E-03	1.38E-03
Hexane	1.11E-03	1.53E-01	7.65E-02
n-Nonane	1.10E-04	1.52E-02	7.58E-03
n-Octane	3.51E-04	4.84E-02	2.42E-02
Pentane	2.60E-03	3.58E-01	1.79E-01
Naphthalene	7.44E-05	1.02E-02	5.12E-03
PAH	2.69E-05	3.71E-03	1.85E-03
Phenanthrene	1.04E-05	1.43E-03	7.16E-04
Phenol	2.40E-05	3.31E-03	1.65E-03
Propane	4.19E-02	5.77E+00	2.89E+00
Pyrene	1.36E-06	1.87E-04	9.37E-05
Styrene	2.36E-05	3.25E-03	1.63E-03
Tetrachloroethane	2.48E-06	3.42E-04	1.71E-04
Toluene	4.08E-04	5.62E-02	2.81E-02
Vinyl Chloride	1.49E-05	2.05E-03	1.03E-03
Xylene	1.84E-04	2.53E-02	1.27E-02

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Appendix B-8: Dewpoint Heater Emissions

I. Basis

The emission factor for hourly CO and NOx emissions were based on TCEQ Tier I published BACT. PM/PM10/PM2.5 emission factors were obtained from AP-42 Chapter 1.4. The operational maximum firing rates are used to calculate the maximum hourly emissions and the estimated maximum annual fuel gas usages are used to calculate the annual emissions.

II. Emission Factors: Fuel Gas

Pollutant	Fuel Gas Combustion			
	lb/mmscf	ppmv	lb/MMbtu	Emission Factor Basis
CO	--	50	0.0369	Equipment Vendor Guarantee, BACT
NO_X	--	--	0.0110	Equipment Vendor Guarantee, BACT
SO2	1.43	--	0.0014	Fuel analysis
PM/PM10/PM2.5	7.6	--	0.0075	AP-42 Chapter 1.4 Natural Gas
VOC	5.5	--	0.0054	AP-42 Chapter 1.4 Natural Gas

III. Emission Estimates

FIN	EPN	Source Name	Operation	Fuel Type	Annual Hours of Operation	Heat Rating		VOC Emissions		NO_X Emissions		CO Emissions		SO_2 Emissions		$PM/PM_{10}/PM_{2.5}$ Emissions	
					hr	MMbtu/hr	MMbtu/yr	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy
DPHEAT1	DPHEAT1	Dewpoint Heater 1	Normal	Natural Gas	8760	8.8	77,088	0.05	0.21	0.10	0.42	0.33	1.42	0.012	0.05	0.07	0.29
DPHEAT2	DPHEAT2	Dewpoint Heater 2		Natural Gas	8760	8.8	77,088	0.05	0.21	0.10	0.42	0.33	1.42	0.012	0.05	0.07	0.29
DPHEAT3	DPHEAT3	Dewpoint Heater 3		Natural Gas	8760	8.8	77,088	0.05	0.21	0.10	0.42	0.33	1.42	0.012	0.05	0.07	0.29
DPHEAT4	DPHEAT4	Dewpoint Heater 4		Natural Gas	8760	8.8	77,088	0.05	0.21	0.10	0.42	0.33	1.42	0.012	0.05	0.07	0.29
DPHEAT5	DPHEAT5	Dewpoint Heater 5		Natural Gas	8760	8.8	77,088	0.05	0.21	0.10	0.42	0.33	1.42	0.012	0.05	0.07	0.29
DPHEAT6	DPHEAT6	Dewpoint Heater 6		Natural Gas	8760	11.1	97,236	0.06	0.26	0.12	0.53	0.41	1.80	0.016	0.07	0.08	0.36
DPHEAT7	DPHEAT7	Dewpoint Heater 7		Natural Gas	8760	11.1	97,236	0.06	0.26	0.12	0.53	0.41	1.80	0.016	0.07	0.08	0.36
DPHEAT8	DPHEAT8	Dewpoint Heater 8		Natural Gas	8760	11.1	97,236	0.06	0.26	0.12	0.53	0.41	1.80	0.016	0.07	0.08	0.36
DPHEAT9	DPHEAT9	Dewpoint Heater 9		Natural Gas	8760	11.1	97,236	0.06	0.26	0.12	0.53	0.41	1.80	0.016	0.07	0.08	0.36
DPHEAT10	DPHEAT10	Dewpoint Heater 10		Natural Gas	8760	11.1	97,236	0.06	0.26	0.12	0.53	0.41	1.80	0.016	0.07	0.08	0.36
DPHEAT11	DPHEAT11	Dewpoint Heater 11		Natural Gas	8760	11.1	97,236	0.06	0.26	0.12	0.53	0.41	1.80	0.016	0.07	0.08	0.36
DPHEAT12	DPHEAT12	Dewpoint Heater 12		Natural Gas	8760	11.1	97,236	0.06	0.26	0.12	0.53	0.41	1.80	0.016	0.07	0.08	0.36
DPHEAT13	DPHEAT13	Dewpoint Heater 13		Natural Gas	8760	11.1	97,236	0.06	0.26	0.12	0.53	0.41	1.80	0.016	0.07	0.08	0.36
DPHEAT14	DPHEAT14	Dewpoint Heater 14		Natural Gas	8760	11.1	97,236	0.06	0.26	0.12	0.53	0.41	1.80	0.016	0.07	0.08	0.36
DPHEAT15	DPHEAT15	Dewpoint Heater 15		Natural Gas	8760	11.1	97,236	0.06	0.26	0.12	0.53	0.41	1.80	0.016	0.07	0.08	0.36
DPHEAT16	DPHEAT16	Dewpoint Heater 16		Natural Gas	8760	11.1	97,236	0.06	0.26	0.12	0.53	0.41	1.80	0.016	0.07	0.08	0.36
DPHEAT17	DPHEAT17	Dewpoint Heater 17		Natural Gas	8760	11.1	97,236	0.06	0.26	0.12	0.53	0.41	1.80	0.016	0.07	0.08	0.36
DPHEAT18	DPHEAT18	Dewpoint Heater 18		Natural Gas	8760	11.1	97,236	0.06	0.26	0.12	0.53	0.41	1.80	0.016	0.07	0.08	0.36
DPHEAT19	DPHEAT19	Dewpoint Heater 19		Natural Gas	8760	11.1	97,236	0.06	0.26	0.12	0.53	0.41	1.80	0.016	0.07	0.08	0.36

IV. VOC Speciation - AP-42 Table 1.4-3 Pollutants

Pollutant	Emission Factor (lb/MMBtu)	All Heaters Combined	
		lb/hr	tpy
2-Methylnaphthalene	2.35E-08	4.69E-06	2.05E-05
3-Methylnaphthalene	1.76E-09	3.52E-07	1.54E-06
7.12 Dimethylbenzanthracene	1.57E-08	3.13E-06	1.37E-05
Acenaphthene	1.76E-09	3.52E-07	1.54E-06
Acenaphthylene	1.76E-09	3.52E-07	1.54E-06
Anthracene	2.35E-09	4.69E-07	2.05E-06
Benz(a)anthracene	1.76E-09	3.52E-07	1.54E-06
Benzene	2.06E-06	4.11E-04	1.80E-03
Benzo(a)pyrene	1.18E-09	2.35E-07	1.03E-06
Benzo(b)fluoranthene	1.76E-09	3.52E-07	1.54E-06
Benzo(g,h,i)perylene	1.18E-09	2.35E-07	1.03E-06
Benzo(k)fluoranthene	1.76E-09	3.52E-07	1.54E-06
Butane	2.06E-03	4.11E-01	1.80E+00
Chrysene	1.76E-09	3.52E-07	1.54E-06
Dibenzo(a,h)anthracene	1.18E-09	2.35E-07	1.03E-06
Dichlorobenzene	1.18E-06	2.35E-04	1.03E-03
Ethane	3.04E-03	6.06E-01	2.65E+00
Fluoranthene	2.94E-09	5.86E-07	2.57E-06
Fluorene	2.75E-09	5.47E-07	2.40E-06
Formaldehyde	7.35E-05	1.47E-02	6.42E-02
Hexane	1.76E-03	3.52E-01	1.54E+00
Indeno(1,2,3-cd)pyrene	1.76E-09	3.52E-07	1.54E-06
Naphthalene	5.98E-07	1.19E-04	5.22E-04
Pentane	2.55E-03	5.08E-01	2.23E+00
Phenanthrene	1.67E-08	3.32E-06	1.46E-05
Propane	1.57E-03	3.13E-01	1.37E+00
Pyrene	4.90E-09	9.77E-07	4.28E-06
Toluene	3.33E-06	6.65E-04	2.91E-03

Appendix B-8: Dewpoint Heater Emissions

V. Sample Calculations

Maximum Short-Term NO_X Emission

$$\frac{8.80\ \text{MMbtu}}{\text{hr}} \times \frac{0.011000\ \text{lb NO}_X}{\text{MMbtu}} = \frac{0.10\ \text{lb NO}_X}{\text{hr}}$$

Annual NO_X Emissions

$$\frac{77{,}088\ \text{MMbtu}}{\text{yr}} \times \frac{0.0110\ \text{lb NO}_X}{\text{MMbtu}} \times \frac{\text{ton}}{2{,}000\ \text{lb}} = \frac{0.42\ \text{ton NO}_X}{\text{yr}}$$

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Appendix B-9: Emergency Engines

I. Basis

Ultra low sulfur diesel (USLD) emergency-use Reciprocating Internal Combustion Engines (RICE) will be installed to pump water during fires and provide emergency power. Short-term emissions were calculated based on the maximum rated power output of the engine using manufacturer provided emission factors. Annual emissions were based on the maximum rated power of the engine, manufacturer provided emission factors, and annual hours of operation. The RICE are subject to 40 CFR 60 Subpart IIII, and the proposed emission rates meet the NSPS for Stationary Compression Ignition Internal Combustion Engines. Note that the site will also install electric powered fire water pumps that are not emission sources for permitting.

II. Emission Factors - ULSD Emergency Fire Water Pump RICE

Pollutant	Emission Factors	
	g/hp-hr	Source
CO	0.40	Vendor data, EPA Tier 3 Emissions Certified
$PM/PM_{10}/PM_{2.5}$	0.06	Vendor data, EPA Tier 3 Emissions Certified
NO_X	2.69	Vendor data, EPA Tier 3 Emissions Certified
VOC	0.06	Vendor data, EPA Tier 3 Emissions Certified
SO_2	0.005	15 ppm ULSD

III. Emission Factors - ULSD Emergency Generator RICE

Pollutant	Emission Factors	
	g/hp-hr	Source
CO	0.58	Vendor Data, EPA Tier 2 Emissions Certified
$PM/PM_{10}/PM_{2.5}$	0.19	Vendor Data, EPA Tier 2 Emissions Certified
NO_X	5.21	Vendor Data, EPA Tier 2 Emissions Certified
VOC	0.30	Vendor Data, EPA Tier 2 Emissions Certified
SO_2	0.006	Vendor Data, EPA Tier 2 Emissions Certified

IV. Emissions Criteria

FIN	EPN	Engine	Horsepower	Annual Hours of Operation	VOC		NO_X		CO		SO_2		$PM/PM_{10}/PM_{2.5}$	
					lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy
FPUMP1	FPUMP1	Firewater Pump 1	305	100	0.04	0.00	1.81	0.09	0.27	0.01	0.003	0.0002	0.04	0.002
FPUMP2	FPUMP2	Firewater Pump 2	305	100	0.04	0.00	1.81	0.09	0.27	0.01	0.003	0.0002	0.04	0.002
EGEN1	EGEN1	Emergency Engine 1	4,023	100	2.66	0.13	46.21	2.31	5.14	0.26	0.053	0.003	1.69	0.084
EGEN2	EGEN2	Emergency Engine 2	4,023	100	2.66	0.13	46.21	2.31	5.14	0.26	0.053	0.003	1.69	0.084
EGEN3	EGEN3	Emergency Engine 3	4,023	100	2.66	0.13	46.21	2.31	5.14	0.26	0.053	0.003	1.69	0.084
EGEN4	EGEN4	Emergency Engine 4	4,023	100	2.66	0.13	46.21	2.31	5.14	0.26	0.053	0.003	1.69	0.084
EGEN5	EGEN5	Emergency Engine 5	4,023	100	2.66	0.13	46.21	2.31	5.14	0.26	0.053	0.003	1.69	0.084
EGEN6	EGEN6	Emergency Engine 6	4,023	100	2.66	0.13	46.21	2.31	5.14	0.26	0.053	0.003	1.69	0.084
EGEN7	EGEN7	Emergency Engine 7	4,023	100	2.66	0.13	46.21	2.31	5.14	0.26	0.053	0.003	1.69	0.084
EGEN8	EGEN8	Emergency Engine 8	4,023	100	2.66	0.13	46.21	2.31	5.14	0.26	0.053	0.003	1.69	0.084
EGEN9	EGEN9	Emergency Engine 9	4,023	100	2.66	0.13	46.21	2.31	5.14	0.26	0.053	0.003	1.69	0.084
EGEN10	EGEN10	Emergency Engine 10	4,023	100	2.66	0.13	46.21	2.31	5.14	0.26	0.053	0.003	1.69	0.084
EGEN11	EGEN11	Emergency Engine 11	4,023	100	2.66	0.13	46.21	2.31	5.14	0.26	0.053	0.003	1.69	0.084
EGEN12	EGEN12	Emergency Engine 12	4,023	100	2.66	0.13	46.21	2.31	5.14	0.26	0.053	0.003	1.69	0.084
EGEN13	EGEN13	Emergency Engine 13	4,023	100	2.66	0.13	46.21	2.31	5.14	0.26	0.053	0.003	1.69	0.084
EGEN14	EGEN14	Emergency Engine 14	4,023	100	2.66	0.13	46.21	2.31	5.14	0.26	0.053	0.003	1.69	0.084
EGEN15	EGEN15	Emergency Engine 15	4,023	100	2.66	0.13	46.21	2.31	5.14	0.26	0.053	0.003	1.69	0.084

Appendix B-9: Emergency Engines

V. VOC Speciation - AP-42 Pollutants

FIN	EPN	Engine	Horsepower	Brake-Specific Fuel Consumption	Heat Rating
				Btu/hp-hr	MMBtu/hr
FPUMP1	FPUMP1	Firewater Pump 1	305	7,000	2.14
EGEN1	EGEN1	Emergency Engine 1	4,023	7,000	28.16

Pollutant	Emission Factor (lb/MMBtu)	Emissions per Firewater Pump		Emissions per Emergency Engine	
		lb/hr	tpy	lb/hr	tpy
Benzene	9.33E-04	1.99E-03	9.96E-05	2.63E-02	1.31E-03
Toluene	4.09E-04	8.73E-04	4.37E-05	1.15E-02	5.76E-04
Xylene	2.85E-04	6.08E-04	3.04E-05	8.03E-03	4.01E-04
Propylene	2.58E-03	5.51E-03	2.75E-04	7.27E-02	3.63E-03
1,3 Butadiene	3.91E-05	8.35E-05	4.17E-06	1.10E-03	5.51E-05
Formaldehyde	1.18E-03	2.52E-03	1.26E-04	3.32E-02	1.66E-03
Acetaldehyde	7.67E-04	1.64E-03	8.19E-05	2.16E-02	1.08E-03
Acrolein	9.25E-05	1.97E-04	9.87E-06	2.60E-03	1.30E-04
Naphthalene	8.48E-05	1.81E-04	9.05E-06	2.39E-03	1.19E-04
Acenaphthylene	5.06E-06	1.08E-05	5.40E-07	1.42E-04	7.12E-06
Acenaphthene	1.42E-06	3.03E-06	1.52E-07	4.00E-05	2.00E-06
Fluorene	2.92E-05	6.23E-05	3.12E-06	8.22E-04	4.11E-05
Phenanthrene	2.94E-05	6.28E-05	3.14E-06	8.28E-04	4.14E-05
Anthracene	1.87E-06	3.99E-06	2.00E-07	5.27E-05	2.63E-06
Fluoranthene	7.61E-06	1.62E-05	8.12E-07	2.14E-04	1.07E-05
Pyrene	4.78E-06	1.02E-05	5.10E-07	1.35E-04	6.73E-06
Benz(a)anthracene	1.68E-06	3.59E-06	1.79E-07	4.73E-05	2.37E-06
Chrysene	3.53E-07	7.54E-07	3.77E-08	9.94E-06	4.97E-07
Benzo(b)fluoranthene	9.91E-08	2.12E-07	1.06E-08	2.79E-06	1.40E-07
Benzo(k)fluoranthene	1.55E-07	3.31E-07	1.65E-08	4.37E-06	2.18E-07
Benzo(a)pyrene	1.88E-07	4.01E-07	2.01E-08	5.29E-06	2.65E-07
Indeno(1,2,3-cd)pyrene	3.75E-07	8.01E-07	4.00E-08	1.06E-05	5.28E-07
Dibenzo(a,h)anthracene	5.83E-07	1.24E-06	6.22E-08	1.64E-05	8.21E-07
Benzo(g,h,i)perylene	4.89E-07	1.04E-06	5.22E-08	1.38E-05	6.89E-07
TOTAL PAH	1.68E-04	3.59E-04	1.79E-05	4.73E-03	2.37E-04
Nitrous Oxide	1.32E-03	2.82E-03	1.41E-04	3.73E-02	1.86E-03

Emission factors taken from AP-42 table 3.3-2. Note that the formaldehyde emission factor is less than the 580 ppbv at 15% O2 specified in 40 CFR 63 Subpart ZZZZ Table 2a. Emissions of nitrous oxide taken from 40 CFR 98 Table C-2.

IV. Example Calculations - FPUMP1

Example Short-term Emission Calculation (NO_X)

$$\frac{2.69E+00\ \frac{g}{hp\text{-}hr} \times 305\ hp \times 1}{453.6\ \frac{lb}{g}} = 1.81\ \frac{lb\ Nox}{hr}$$

Example Annual Emission Calculation (NO_X)

$$\frac{2.69E+00\ \frac{g}{hp\text{-}hr} \times 305\ hp \times 100\ \frac{hr}{yr} \times 1\ \frac{ton}{2000\ lb} \times 1\ \frac{lb}{453.6\ g}}{} = 0.09\ tpy\ NOx$$

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Appendix B-10: Wet Surface Air Cooler (WSAC) Emissions

I. Basis

Emissions from the Wet Surface Air Coolers (WSAC) were calculated using a 0.001 % drift loss factor and the circulation rate, per TCEQ BACT requirements. The PM/PM10/PM2.5 size fractions are calculated using the methodology presented "Calculating Realistic PM10 Emissions from Cooling Towers" by Joel Reisman and Gordon Frisbie. The WSAC provide indirect cooling of the CTG lube oil systems, hydraulic oil systems, and generators. Given the indirect cooling methods there is no potential for VOC leakages into the cooling water.

II. Emission Calculations

Liquid Density of Water: 8.34 lb/gal

EPN	Cooling Spray Rate		Operating Hours	Drift Loss	Total Dissolved Solids (TDS) [1]	PM_{10} Fraction	$PM_{2.5}$ Fraction	PM Emissions		PM_{10} Emissions		$PM_{2.5}$ Emissions	
	gpm	gph	hr	%	ppm	%	%	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy
CO-1	7,920	475,200	8,760	0.001%	3,000	50.00%	0.20%	**0.12**	**0.52**	**0.06**	**0.26**	**2.42E-04**	**1.06E-03**
CO-2	7,920	475,200	8,760	0.001%	3,000	50.00%	0.20%	**0.12**	**0.52**	**0.06**	**0.26**	**2.42E-04**	**1.06E-03**
CO-3	7,920	475,200	8,760	0.001%	3,000	50.00%	0.20%	**0.12**	**0.52**	**0.06**	**0.26**	**2.42E-04**	**1.06E-03**
CO-4	7,920	475,200	8,760	0.001%	3,000	50.00%	0.20%	**0.12**	**0.52**	**0.06**	**0.26**	**2.42E-04**	**1.06E-03**
CO-5	7,920	475,200	8,760	0.001%	3,000	50.00%	0.20%	**0.12**	**0.52**	**0.06**	**0.26**	**2.42E-04**	**1.06E-03**
CO-6	5,400	324,000	8,760	0.001%	3,000	50.00%	0.20%	**0.08**	**0.36**	**0.04**	**0.18**	**1.65E-04**	**7.23E-04**
CO-7	5,400	324,000	8,760	0.001%	3,000	50.00%	0.20%	**0.08**	**0.36**	**0.04**	**0.18**	**1.65E-04**	**7.23E-04**
CO-8	5,400	324,000	8,760	0.001%	3,000	50.00%	0.20%	**0.08**	**0.36**	**0.04**	**0.18**	**1.65E-04**	**7.23E-04**
CO-9	5,400	324,000	8,760	0.001%	3,000	50.00%	0.20%	**0.08**	**0.36**	**0.04**	**0.18**	**1.65E-04**	**7.23E-04**
CO-10	5,400	324,000	8,760	0.001%	3,000	50.00%	0.20%	**0.08**	**0.36**	**0.04**	**0.18**	**1.65E-04**	**7.23E-04**
CO-11	5,400	324,000	8,760	0.001%	3,000	50.00%	0.20%	**0.08**	**0.36**	**0.04**	**0.18**	**1.65E-04**	**7.23E-04**
CO-12	5,400	324,000	8,760	0.001%	3,000	50.00%	0.20%	**0.08**	**0.36**	**0.04**	**0.18**	**1.65E-04**	**7.23E-04**
CO-13	5,400	324,000	8,760	0.001%	3,000	50.00%	0.20%	**0.08**	**0.36**	**0.04**	**0.18**	**1.65E-04**	**7.23E-04**
CO-14	5,400	324,000	8,760	0.001%	3,000	50.00%	0.20%	**0.08**	**0.36**	**0.04**	**0.18**	**1.65E-04**	**7.23E-04**
CO-15	5,400	324,000	8,760	0.001%	3,000	50.00%	0.20%	**0.08**	**0.36**	**0.04**	**0.18**	**1.65E-04**	**7.23E-04**
CO-16	5,400	324,000	8,760	0.001%	3,000	50.00%	0.20%	**0.08**	**0.36**	**0.04**	**0.18**	**1.65E-04**	**7.23E-04**
CO-17	5,400	324,000	8,760	0.001%	3,000	50.00%	0.20%	**0.08**	**0.36**	**0.04**	**0.18**	**1.65E-04**	**7.23E-04**
CO-18	5,400	324,000	8,760	0.001%	3,000	50.00%	0.20%	**0.08**	**0.36**	**0.04**	**0.18**	**1.65E-04**	**7.23E-04**
CO-19	5,400	324,000	8,760	0.001%	3,000	50.00%	0.20%	**0.08**	**0.36**	**0.04**	**0.18**	**1.65E-04**	**7.23E-04**

[1] Water utilized is condensation from atmospheric air. Additionally, recycled water from throughout the facility may be used. Conservatively assumed 3000 ppm for calculations.

III. Sample Calculations

Particulate (PM) Emissions

Hourly Particulate (PM) Emissions:

$$\frac{7{,}920.0\ \text{gal}}{\text{min}} \times \frac{60\ \text{min}}{\text{hr}} \times 0.001\% \times \frac{8.34\ \text{lb}}{\text{gal}} \times \frac{3{,}000\ \text{lb PM}}{1{,}000{,}000\ \text{lb water}} = 0.12\ \text{lb/hr}$$

Annual Particulate (PM) Emissions:

$$\frac{0.12\ \text{lb}}{\text{hr}} \times \frac{8{,}760\ \text{hr}}{\text{yr}} \times \frac{\text{ton}}{2000\ \text{lb}} = 0.52\ \text{tpy}$$

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Appendix B-11: Lube Oil Recirculation System Vents

I. Basis

The heating of recirculating lube oil in the gas turbine housing generates oil vapor and oil condensate droplets in the oil reservoir compartments. Lube oil mist emissions are controlled by a mist eliminator.

Unloading, storage, and heated recirculation of lube oil in gas turbine reservoirs will result in losses of about 0.2 gallons per day per vent, based on oil consumption for similar units. Per engineering estimates, approximately 30% of the loss is due to evaporation, and the rest are non-volatile losses. The calculated hourly emissions are based on the daily emission rate divided by 24 hours per day.

Lube oil mist will be generated and the corresponding mist eliminator fan will be operated concurrently with turbine operation, including during startup and shutdown, plus additional time after turbine operation. When the gas turbine does not operate for extended periods such that lube oil is cooled to near-ambient temperatures, mist eliminators may be shut down. During this time, vapor breathing and filling losses may occur from each oil reservoir. These latter losses are significantly less than the emission rates calculated on this sheet.

FIN	EPN	Emission Rate Per Mist Eliminator Vent (gal/hr/vent)	Oil Density (lb/gal)	Evaporation Fraction	VOC		PM/PM_{10}/$PM_{2.5}$	
				%	lb/hr	tpy	lb/hr	tpy
OILVENT1	OILVENT1	8.33E-03	7.26	30%	0.02	0.08	0.02	0.08
OILVENT2	OILVENT2	8.33E-03	7.26	30%	0.02	0.08	0.02	0.08
OILVENT3	OILVENT3	8.33E-03	7.26	30%	0.02	0.08	0.02	0.08
OILVENT4	OILVENT4	8.33E-03	7.26	30%	0.02	0.08	0.02	0.08
OILVENT5	OILVENT5	8.33E-03	7.26	30%	0.02	0.08	0.02	0.08
OILVENT6	OILVENT6	8.33E-03	7.26	30%	0.02	0.08	0.02	0.08
OILVENT7	OILVENT7	8.33E-03	7.26	30%	0.02	0.08	0.02	0.08
OILVENT8	OILVENT8	8.33E-03	7.26	30%	0.02	0.08	0.02	0.08
OILVENT9	OILVENT9	8.33E-03	7.26	30%	0.02	0.08	0.02	0.08
OILVENT10	OILVENT10	8.33E-03	7.26	30%	0.02	0.08	0.02	0.08
OILVENT11	OILVENT11	8.33E-03	7.26	30%	0.02	0.08	0.02	0.08
OILVENT12	OILVENT12	8.33E-03	7.26	30%	0.02	0.08	0.02	0.08
OILVENT13	OILVENT13	8.33E-03	7.26	30%	0.02	0.08	0.02	0.08
OILVENT14	OILVENT14	8.33E-03	7.26	30%	0.02	0.08	0.02	0.08
OILVENT15	OILVENT15	8.33E-03	7.26	30%	0.02	0.08	0.02	0.08
OILVENT16	OILVENT16	8.33E-03	7.26	30%	0.02	0.08	0.02	0.08
OILVENT17	OILVENT17	8.33E-03	7.26	30%	0.02	0.08	0.02	0.08
OILVENT18	OILVENT18	8.33E-03	7.26	30%	0.02	0.08	0.02	0.08
OILVENT19	OILVENT19	8.33E-03	7.26	30%	0.02	0.08	0.02	0.08
OILVENT20	OILVENT20	8.33E-03	7.26	30%	0.02	0.08	0.02	0.08
OILVENT21	OILVENT21	8.33E-03	7.26	30%	0.02	0.08	0.02	0.08
OILVENT22	OILVENT22	8.33E-03	7.26	30%	0.02	0.08	0.02	0.08
OILVENT23	OILVENT23	8.33E-03	7.26	30%	0.02	0.08	0.02	0.08
OILVENT24	OILVENT24	8.33E-03	7.26	30%	0.02	0.08	0.02	0.08
OILVENT25	OILVENT25	8.33E-03	7.26	30%	0.02	0.08	0.02	0.08
OILVENT26	OILVENT26	8.33E-03	7.26	30%	0.02	0.08	0.02	0.08
OILVENT27	OILVENT27	8.33E-03	7.26	30%	0.02	0.08	0.02	0.08
OILVENT28	OILVENT28	8.33E-03	7.26	30%	0.02	0.08	0.02	0.08
OILVENT29	OILVENT29	8.33E-03	7.26	30%	0.02	0.08	0.02	0.08
OILVENT30	OILVENT30	8.33E-03	7.26	30%	0.02	0.08	0.02	0.08
OILVENT31	OILVENT31	8.33E-03	7.26	30%	0.02	0.08	0.02	0.08
OILVENT32	OILVENT32	8.33E-03	7.26	30%	0.02	0.08	0.02	0.08
OILVENT33	OILVENT33	8.33E-03	7.26	30%	0.02	0.08	0.02	0.08
OILVENT34	OILVENT34	8.33E-03	7.26	30%	0.02	0.08	0.02	0.08
OILVENT35	OILVENT35	8.33E-03	7.26	30%	0.02	0.08	0.02	0.08
Total					**0.64**	**2.78**	**0.64**	**2.78**

II. Example Calculations - OILVENT1

Example Short-term Emission Calculation (VOC)

$$\frac{8.33E\text{-}03\ \frac{gal}{hr} \times 7\ \frac{lb}{gal} \times 30\%}{} = \frac{0.02\ \frac{lb\ VOC}{hr}}{}$$

Example Annual Emission Calculation (VOC)

$$\frac{8.33E\text{-}03\ \frac{gal}{hr} \times 7\ \frac{lb}{gal} \times 30\% \times 8760\ \frac{hr}{yr} \times 1\ \frac{ton}{2000\ lb}}{} = 0.08\ \text{tpy VOC}$$

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Appendix B-12: Natural Gas Piping Fugitives

I. Basis

This represents natural gas piping components associated with the project. Emission factors utilized were from *EPA-453/R-95-017, November 1995*, Table 2-4, Oil and Gas Operation Average Emission Factors. Component counts and average composition calculated from process flow diagrams and engineering counts. All open-ended lines are capped or blind-flanged. In accordance with TCEQ guidance, components under vacuum with a vapor pressure at least 0.725 psi below ambient are recorded though no emissions result from these components.

Overall Fugitives Count and Total Emissions (EPN NGFUG)						
Equipment Type	**Service**	**Component Count**	**Emission Factor[1] (lb/hr/component)**	**Control Efficiency**	**Controlled Emissions**	
					Hourly (lb/hr)	**Annual (tpy)**
Flange & Connectors	Gas/Vapor	1,268	0.00086	0%	1.090	4.775
	Light Liquid	240	0.00046	0%	0.111	0.487
	Heavy Liquid	0	0.00002	0%	0.000	0.000
Valves	Gas/Vapor	464	0.00992	0%	4.603	20.162
	Light Liquid	60	0.00551	0%	0.331	1.448
	Heavy Liquid	0	0.00002	0%	0.000	0.000
Relief Valves	Gas/Vapor	0	0.01940	0%	0.000	0.000
Open Ended Lines	All	0	0.00441	0%	0.000	0.000
Drains	All	0	0.01940	0%	0.000	0.000
Pump Seals	Light Liquid	0	0.02866	0%	0.000	0.000
	Heavy Liquid	0	0.00007	0%	0.000	0.000
Compressor Seals	All	0	0.01940	0%	0.000	0.000
Total Unspeciated Emissions (EPN NGFUG)					**6.14**	**26.87**

[1] Emission factors utilized are from EPA-453/R-95-017, Table 2-4, Oil and Gas Operation Average Emission Factors, November 1995.

Sample Calculations - Flange & Connectors in Light Liquid Service

Maximum Hourly Emissions, lb/hr = (Number of Components) * (Emission Factor, lb/hr/component) * (1-Control Credit)

$$\text{lb/hr} = \frac{240 \text{ components}}{} \left| \frac{0.00046 \text{ lb/hr}}{\text{component}} \right| \frac{1 - 0.00}{} = 0.111 \text{ lb/hr}$$

Annual Emissions, tpy= (Number of Components) * (EF, lb/hr/component) * (Number of Hours/Year) * (1-Control Credit) * (1 ton per 2,000 lbs)

$$\text{tpy} = \frac{240 \text{ components}}{} \left| \frac{0.00046 \text{ lb/hr}}{\text{component}} \right| \frac{8{,}760 \text{ hours}}{\text{year}} \frac{1 - 0.00}{} \frac{1 \text{ ton}}{2{,}000 \text{ lb}} = 0.487 \text{ tpy}$$

II. Speciated Emissions

Compound	Weight Fraction	Hourly (lb/hr)	Annual (tpy)
Carbon Dioxide	0.04%	0.00	0.01
Ethane	0.83%	0.05	0.22
Ethyl Mercaptan	0.001%	5.98E-05	2.62E-04
Hydrogen Sulfide	0.001%	4.98E-05	2.18E-04
Isobutane	0.001%	3.43E-05	0.000
Methane	98.08%	6.02	26.36
n-butane	0.001%	3.43E-05	0.000
Nitrogen	1.03%	0.06	0.28
Propane	0.02%	0.001	0.00
Total VOC Emissions		**0.001**	**0.005**

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Appendix B-13: SCR Delivery System Fugitives

I. Basis

This represents fugitive components associated with the SCR delivery system. Emission factors utilized were the SOCMI w/o ethylene factors from *Air Permit Technical Guidance for Chemical Sources: Fugitive Guidance (APDG 6422), June 2018*. Component counts and average composition calculated from process flow diagrams and engineering counts. All open-ended lines are capped or blind-flanged. In accordance with TCEQ guidance, components under vacuum with a vapor pressure at least 0.725 psi below ambient are recorded though no emissions result from these components.

Overall Fugitives Count and Total Emissions (EPN NH3FUG)						
Equipment Type	**Service**	**Component Count**	**Emission Factor[1] (lb/hr/component)**	**AVO Control Credit[4]**	**Controlled Emissions**	
					Hourly (lb/hr)	**Annual (tpy)**
Flange & Connectors	Gas/Vapor	248	0.0029	97%	0.022	0.095
	Light Liquid	784	0.0005	97%	0.012	0.052
	Heavy Liquid	0	0.00007	97%	0.000	0.000
Valves	Gas/Vapor	56	0.0089	97%	0.015	0.065
	Light Liquid	148	0.0035	97%	0.016	0.068
	Heavy Liquid	0	0.0007	97%	0.000	0.000
Relief Valves [2]	Gas/Vapor	0	0.2293	97%	0.000	0.000
Open Ended Lines[3]	All	0	0.004	97%	0.000	0.000
Drains [3]	All	0	0.004	97%	0.000	0.000
Pump Seals	Light Liquid	6	0.0386	93%	0.016	0.071
	Heavy Liquid	0	0.0161	93%	0.000	0.000
Compressor Seals	All	0	0.5027	95%	0.000	0.000
				Total (EPN NH3FUG)	**0.08**	**0.35**

[1] Emission factors utilized are for the SOCMI without ethylene program specified in "Air Permit Technical Guidance for Chemical Sources: Fugitive Guidance (APDG 6422)" dated June 2018.

[2] Relief valves are equipped with a rupture disc and pressure sensing device (between the valve and disc) to monitor for disc integrity. Therefore, 100% control efficiency applied as per, "Air Permit Technical Guidance for Chemical Sources: Fugitive Guidance (APDG 6422)" dated June 2018.

[3] Open-ended lines and drains at the facility are equipped with a cap and therefore 100% control efficiency applied as per, "Air Permit Technical Guidance for Chemical Sources: Fugitive Guidance (APDG 6422)" dated June 2018.

[4] Air Permit Technical Guidance for Chemical Sources: Fugitive Guidance (APDG 6422) dated June 2018.

Sample Calculations - Flange & Connectors in Light Liquid Service

Maximum Hourly Emissions, lb/hr = (Number of Components) * (Emission Factor, lb/hr/component) * (1-Control Credit)

$$\text{lb/hr} = \frac{784 \text{ components}}{} \left| \frac{0.0005 \text{ lb/hr}}{\text{component}} \right| \frac{1 - 0.97}{} = 0.012 \text{ lb/hr}$$

Annual Emissions, tpy= (Number of Components) * (EF, lb/hr/component) * (Number of Hours/Year) * (1-Control Credit) * (1 ton per 2,000 lbs)

$$\text{tpy} = \frac{784 \text{ components}}{} \left| \frac{0.0005 \text{ lb/hr}}{\text{component}} \right| \frac{8{,}760 \text{ hours}}{\text{year}} \left| \frac{1 - 0.97}{} \right| \frac{1 \text{ ton}}{2{,}000 \text{ lb}} = 0.052 \text{ tpy}$$

II. Speciated Emissions

Compound	Weight Fraction	Hourly (lb/hr)	Annual (tpy)
Ammonia	19.00%	0.02	0.07
Water	81.00%	0.06	0.28

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Appendix B-14a: Diesel Storage Fixed Roof Tanks

I. Basis

Short-term emissions from the loading of storage tanks are estimated based on the TCEQ Air Permit Reviewer Reference Guide, APDG 6250v13, Released 02/20; "Estimating Short Term Emission Rates from Fixed Roof Tanks," Equation 1, which is based on the TCEQ's policy of using the Ideal Gas Law (IGL) assuming the maximum storage temperature and maximum filling rate. Annual emissions are calculated using factors for vertical fixed-roof tanks obtained from EPA document AP-42, Fifth Edition, Chapter 7. All fixed-roof tanks are uncontrolled.

II. Maximum Hourly Emissions

Tank ID	EPN	Tank Description	Material	Component	Component Liquid Mass Fraction (%)	FR_M Maximum Filling Rate (gal/hr)	$M_v$max Maximum Vapor Molecular Weight (lb/lbmol)	$P_v$max Maximum Vapor Pressure (psia)	Maximum Storage Temperature (^{0}R)	Tank Size (gal)	Control Efficiency	Vapor VOC Mass Fraction	Maximum VOC Hourly Emissions (lb/hr)
TNK-DSL1	TNK-DSL1	Diesel Tank 1	Diesel	Diesel	100.00%	2,000	130.00	1.87E-02	554.67	25,000	0%	100.00%	1.09E-01
TNK-DSL2	TNK-DSL2	Diesel Tank 2	Diesel	Diesel	100.00%	2,000	130.00	1.87E-02	554.67	25,000	0%	100.00%	1.09E-01
TNK-DSL3	TNK-DSL3	Diesel Tank 3	Diesel	Diesel	100.00%	2,000	130.00	1.87E-02	554.67	25,000	0%	100.00%	1.09E-01
TNK-DSL4	TNK-DSL4	Diesel Tank 4	Diesel	Diesel	100.00%	2,000	130.00	1.87E-02	554.67	25,000	0%	100.00%	1.09E-01
TNK-DSL5	TNK-DSL5	Diesel Tank 5	Diesel	Diesel	100.00%	2,000	130.00	1.87E-02	554.67	12,000	0%	100.00%	1.09E-01
TNK-DSL6	TNK-DSL6	Diesel Tank 6	Diesel	Diesel	100.00%	2,000	130.00	1.87E-02	554.67	12,000	0%	100.00%	1.09E-01
TNK-DSL7	TNK-DSL7	Diesel Tank 7	Diesel	Diesel	100.00%	2,000	130.00	1.87E-02	554.67	12,000	0%	100.00%	1.09E-01
												Total VOC Emissions (lb/hr)	**7.64E-01**

III. Annual Average Emissions

Tank ID	EPN	Tank Description	Material	Component	Component Liquid Mass Fraction (%)	M_v Average Vapor Molecular Weight (lb/lbmol)	P_{VA} Vapor Pressure at Average Liquid Surface Temperature (psia)	Average Liquid Surface Temperature (^{0}R)	Tank Size (gal)	Annual Throughput (gal/yr)	Control Efficiency	VOC Vapor Mass Fraction	Working Loss (lb/yr)	Breathing Loss (lb/yr)	Total Emissions (tpy)
TNK-DSL1	TNK-DSL1	Diesel Tank 1	Diesel	Diesel	100.00%	130.00	0.01	525.96	25,000	250,000	0%	1.00E+00	6.108	5.894	6.00E-03
TNK-DSL2	TNK-DSL2	Diesel Tank 2	Diesel	Diesel	100.00%	130.00	0.01	525.96	25,000	250,000	0%	1.00E+00	6.108	5.894	6.00E-03
TNK-DSL3	TNK-DSL3	Diesel Tank 3	Diesel	Diesel	100.00%	130.00	0.01	525.96	25,000	250,000	0%	1.00E+00	6.108	5.894	6.00E-03
TNK-DSL4	TNK-DSL4	Diesel Tank 4	Diesel	Diesel	100.00%	130.00	0.01	525.96	25,000	250,000	0%	1.00E+00	6.108	5.894	6.00E-03
TNK-DSL5	TNK-DSL5	Diesel Tank 5	Diesel	Diesel	100.00%	130.00	0.01	526.13	12,000	120,000	0%	1.00E+00	2.930	3.148	3.04E-03
TNK-DSL6	TNK-DSL6	Diesel Tank 6	Diesel	Diesel	100.00%	130.00	0.01	526.13	12,000	120,000	0%	1.00E+00	2.930	3.148	3.04E-03
TNK-DSL7	TNK-DSL7	Diesel Tank 7	Diesel	Diesel	100.00%	130.00	0.01	526.13	12,000	120,000	0%	1.00E+00	2.930	3.148	3.04E-03
														Total VOC Emissions (tpy)	**3.31E-02**

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Appendix B-14b: Diesel Storage Fixed Roof Tanks Summary

Fixed Roof Tanks Emissions Calculation Summary

TANK IDENTIFICATION NUMBER:	Diesel Tank 1	Diesel Tank 2	Diesel Tank 3	Diesel Tank 4	Diesel Tank 5	Diesel Tank 6	Diesel Tank 7
Material:	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel
Emission Point Number:	TNK-DSL1	TNK-DSL2	TNK-DSL3	TNK-DSL4	TNK-DSL5	TNK-DSL6	TNK-DSL7
Facility Identification Number:	TNK-DSL1	TNK-DSL2	TNK-DSL3	TNK-DSL4	TNK-DSL5	TNK-DSL6	TNK-DSL7
I. EMISSIONS SUMMARY							
TOTAL ANNUAL EMISSIONS (TPY):	**0.006**	**0.01**	**0.01**	**0.01**	**0.003**	**0.003**	**0.003**
VOC EMISSIONS (TPY):	0.01	0.01	0.01	0.01	0.003	0.003	0.003
NON-VOC EMISSIONS (TPY):	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MAXIMUM HOURLY EMISSIONS (lb/hr):	**0.11**	**0.11**	**0.11**	**0.11**	**0.11**	**0.11**	**0.11**
VOC EMISSIONS (lb/hr):	0.11	0.11	0.11	0.11	0.11	0.11	0.11
NON-VOC EMISSIONS (lb/hr):	**0.00E+00**	**0.00E+00**	**0.00E+00**	**0.00E+00**	**0.00E+00**	**0.00E+00**	**0.00E+00**
AP-42 Annual Breathing Losses (lb/yr):	5.89	5.89	5.89	5.89	3.15	3.15	3.15
AP-42 Annual Working Losses (lb/yr):	6.11	6.11	6.11	6.11	2.93	2.93	2.93
II. TANK PROPERTIES							
Vapor Control Efficiency (%):	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Nominal Tank Capacity (gal):	25,000	25,000	25,000	25,000	12,000	12,000	12,000
Tank Diameter (ft):	12.00	12.00	12.00	12.00	11.83	11.83	11.83
Shell Length/Height (ft):	30.00	30.00	30.00	30.00	16.42	16.42	16.42
Tank Shell Color:	White	White	White	White	White	White	White
Tank Roof Color:	White	White	White	White	White	White	White
Paint Condition:	Average	Average	Average	Average	Average	Average	Average
Tank Orientation:	Vertical	Vertical	Vertical	Vertical	Vertical	Vertical	Vertical
Tank Insulation:	Not Insulated	Not Insulated	Not Insulated	Not Insulated	Not Insulated	Not Insulated	Not Insulated
Tank Pressure Vent Setting (psig):	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Tank Vacuum Vent Setting (psig):	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03
III. MATERIAL PROPERTIES							
Vapor Pressure @ Avg. Daily Liquid Temp. (psia):	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Vapor Pressure @ Avg. Daily Max. Surface Liq.Temp. (psia):	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Vapor Pressure @ Avg. Daily Min.Surface Liq.Temp. (psia):	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Vapor Molecular Weight@Avg Surface Temperature (lb/lb-mole):	130.00	130.00	130.00	130.00	130.00	130.00	130.00
Vapor Pressure @ Max. Storage Temp. (psia):	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Vapor Molecular Weight@ Max Storage Temperature (lb/lb-mole):	130.00	130.00	130.00	130.00	130.00	130.00	130.00
IV. OPERATING CONDITIONS							
Location:	Midland, TX	Midland, TX	Midland, TX	Midland, TX	Midland, TX	Midland, TX	Midland, TX
Average Daily Max. Ambient Temp (°F):	76.70	76.70	76.70	76.70	76.70	76.70	76.70
Average Daily Min. Ambient Temp (°F):	51.40	51.40	51.40	51.40	51.40	51.40	51.40
Average Liquid Surface Temperature (°F):	66.29	66.29	66.29	66.29	66.46	66.46	66.46
Maximum Liquid Surface Temperature (°F):	73.47	73.47	73.47	73.47	73.44	73.44	73.44
Minimum Liquid Surface Temperature (°F):	59.11	59.11	59.11	59.11	59.49	59.49	59.49
Maximum Storage Temperature (°F):	95.00	95.00	95.00	95.00	95.00	95.00	95.00
Average Liquid Height (ft):	14.50	14.50	14.50	14.50	7.71	7.71	7.71
Maximum Liquid Height (ft):	29.00	29.00	29.00	29.00	15.42	15.42	15.42
Annual Throughput (gal/yr):	250,000	250,000	250,000	250,000	120,000	120,000	120,000
Number of Turnovers per Year:	10.55	10.55	10.55	10.55	10.12	10.12	10.12
Maximum Filling Rate (gal/hr):	2,000	2,000	2,000	2,000	2,000	2,000	2,000
V. AP-42, CHAPTER 7 FACTORS							
Tank Roof Paint Solar Absorptance Factor:	0.25	0.25	0.25	0.25	0.25	0.25	0.25
Tank Shell Paint Solar Absorptance Factor:	0.25	0.25	0.25	0.25	0.25	0.25	0.25
Avg Daily Total Solar Insolation Factor:	1698.00	1698.00	1698.00	1698.00	1698.00	1698.00	1698.00
Annual Tank Turnover Factor (Kn):	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Vented Vapor Saturation Factor (Ks):	0.99	0.99	0.99	0.99	1.00	1.00	1.00
Vapor Space Expansion Factor (Ke):	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Vent Setting Correction Factor (Kb):	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Working Loss Product Factor (Kp):	1.00	1.00	1.00	1.00	1.00	1.00	1.00

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Appendix B-14c: Diesel Storage Fixed Roof Tanks Sample Calculation

Vertical Fixed Roof Tank Sample Calc

Basis

Fixed Roof tank emissions calculations are based on the methodology presented in AP-42 Chapter 7. The short-term emissions are calculated using the methodology described in TCEQ Memo "Estimating Short Term Emission Rates from Tanks" (APDG 6250v1, Released 09/14).

Tank Selection

Diesel Tank 1

Known Parameters

T_{AX}	Daily Maximum Ambient Temperature (°F)	76.70
T_{AX}	Daily Maximum Ambient Temperature (°R)	536.37
T_{AN}	Daily Minimum Ambient Temperature (°F)	51.40
T_{AN}	Daily Minimum Ambient Temperature (°R)	511.07
T_{AA}	Daily Average Ambient Temperature (°F)	64.05
T_{AA}	Daily Average Ambient Temperature (°R)	523.72
αs	Tank Shell Paint Solar Absorptance	0.25
αr	Tank Roof Paint Solar Absorptance	0.25
-	Tank Insulation	Not Insulated
-	Paint Condition	Average
I	Daily Total Solar Insolation Factor (Btu/ft^2-day)	1698.00
D	Tank Diameter (ft)	12.00
R	Ideal Gas Constant (psia ft^3 / lbmol R)	10.731
P_A	Atmospheric Pressure (psi)	13.26
Q	Annual Net Throughput (bbl/yr)	5,952
V_Q	Annual Net Throughput (ft3/yr)	33,420
Mv	Average Vapor Molecular Weight (lb/lb-mol)	130.00
Pva	Vapor Pressure at Daily Average Surface Temperature (psia)	7.95E-03
Pvx	Vapor Pressure at Daily Maximum Surface Temperature (psia)	9.99E-03
Pvn	Vapor Pressure at Daily Minimum Surface Temperature (psia)	6.25E-03
TB	Bulk Temperature (°R)	524.99
PVV-MAX	Vapor Pressure at Maximum Storage Temperature (psia)	1.87E-02
Mv	Vapor Molecular Weight at Maximum Hourly Storage Temperature (lb/lb-mol)	130.00
--	Maximum Storage Temperature (°F)	554.67
FRm	Maximum Hourly Filling Rate (gal/hr)	2000.00
DRE	Control Efficiency	0.00%
K_P	Working Loss Product Factor for Fixed Roof Tanks	1.00
P_{BP}	Breather Vent Pressure Setting (psi)	0.03
P_{BV}	Breather Vent Vacuum Setting (psi)	-0.03
H_S	Tank Shell Height (ft)	30.00
H_L	Liquid Height (ft)	14.50
H_{LX}	Maximum Liquid Height (ft)	29.00
-	Tank Roof Type	Cone
S_R	Tank Roof Slope (ft/ft)	0.0625
R_S	Tank Shell Radius (ft)	6.00

Calculations:

Vapor Space Volume (ft^3)

$V_V = pi/4 * D^2 * H_{VO}$

$V_V =$ $\frac{3.1416}{4}$ 12^2 ft 1.56E+01 ft = 1767.15 ft^3

Vapor Space Outage (ft)

$H_{VO} = H_S - H_L + H_{RO}$

$H_{VO} =$ 30 ft - 14.50 ft + 1.25E-01 ft = 15.6250 ft

Tank Roof Height (ft) - Cone Roof

$H_R = S_R \times R_S$

$H_R =$ 0.06 x 6.00 = 3.75E-01 ft

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Appendix B-14c: Diesel Storage Fixed Roof Tanks Sample Calculation

Roof Outage (ft) - Cone

$H_{RO} = (1/3)*H_R$

$H_{RO} = \left| 0.38 \text{ ft} * \frac{1}{3} \right| = 1.25E\text{-}01$ ft

Tank Maximum Liquid Volume (ft^3)

$V_{LX} = \pi * D^2 * H_{LX} / 4$

$V_{LX} = \frac{3.1416 \mid 12^2 \text{ ft} \mid 29.00 \text{ ft}}{4} = 3279.8227$ ft^3

Number of Turnovers Per Year

$N = \Sigma H_{OI}/(H_{LX}-H_{LN})$

$N = \frac{5.614 \text{ ft/bbl} \times 5952.38 \text{ bbl/year}}{(pi/4) \times 12.00^2 \text{ ft}} / 29.00 \text{ ft} - 1 \text{ ft} = 10.6$ Turnovers per Year

Turnover Factor

If N>36, $K_N=(180+N)/6N$

$K_N = \frac{180}{6} + \frac{10.55}{10.55} = 1.00$

Daily Average Liquid Surface Temperature (°R)

$$T_{LA}Uninsulated = \left(0.5 - \frac{0.8}{4.4\left(\frac{H_S}{D}\right)+3.8}\right)T_{AA} + \left(0.5 + \frac{0.8}{4.4\left(\frac{H_S}{D}\right)+3.8}\right)T_B + \frac{0.021\,\alpha_R I + 0.013\left(\frac{H_S}{D}\right)\alpha_S I}{4.4\left(\frac{H_S}{D}\right)+3.8} = 526.0 \text{ R}$$

$$T_{LA}Insulated = (0.3)T_{AA} + (0.7)T_B + 0.005\,\alpha_R I$$

Daily Maximum Liquid Surface Temperature (°R)

$T_{LX} = T_{LA} + 0.25\,\Delta T_V$

T_{LX}= 525.96 R + 0.25 x 28.70 R = 533.14 R

Daily Minimum Liquid Surface Temperature (°R)

$T_{LN} = T_{LA} - 0.25\,\Delta T_V$

T_{LN}= 525.96 R - 0.25 x 28.70 R = 518.78 R

Daily Average Ambient Temperature (°R)

$T_{AA} = (T_{AX} + T_{AN})/2$

$T_{AA} = \frac{536.37 \text{ R} + 511.07 \text{ R}}{2} = 523.72$ °R

Liquid Bulk Temperature (°R)

If unknown, $T_B = T_{AA} + .003\alpha_S I$

T_B = 523.72 R + .003 x 0.25 x 1698.00 = 524.994

Daily Ambient Temperature Range (°R)

$\Delta T_A = (T_{AX} - T_{AN})$

ΔT_A = 536.37 R - 511.07 R = 25.30 R

Average Daily Vapor Temperature (°R)

$$T_V Uninsulated = \frac{\left[2.2\left(\frac{H_S}{D}\right)+1.1\right]T_{AA} + 0.08T_B + 0.021\alpha_R I + 0.013\left(\frac{H_S}{D}\right)\alpha_S I}{2.2\left(\frac{H_S}{D}\right)+1.9} = 526.93 \text{ R}$$

$$T_V Insulated = (0.6)T_{AA} + (0.4)T_B + 0.01\,\alpha_R I$$

Average Daily Vapor Temperature Range (°R)

$$\Delta T_V Uninsulated = \left(1 - \frac{0.8}{2.2\left(\frac{H_S}{D}\right)+1.9}\right)\Delta T_A + \frac{0.042\,\alpha_R I + 0.026\left(\frac{H_S}{D}\right)\alpha_S I}{2.2\left(\frac{H_S}{D}\right)+1.9} = 28.70 \text{ R}$$

$$\Delta T_V Partial\ Insulation = (0.7)\Delta T_A + 0.02\alpha I$$

$$\Delta T_V Partial\ Insulation = 0$$

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Appendix B-14c: Diesel Storage Fixed Roof Tanks Sample Calculation

ΔP_V = 9.99E-03 psia - 6.25E-03 psia = 3.74E-03 psia

Breather Vent Pressure Setting Range

$\Delta P_B = P_{BP} - P_{BV}$

ΔP_B = 0.03 psia - -0.03 psia = 6.00E-02 psia

Vapor Density (lb/ft^3)

$W_V = M_V * P_{VA} / R * T_V$

$$W_V = \frac{130 \text{ lb/lbmol} \mid 7.95\text{E-}03 \text{ psia} \mid \text{lbmol } ^\circ\text{R}}{10.731 \text{ psia ft}^3 \mid 526.93 \text{ R}} = 1.83\text{E-}04 \frac{\text{lb}}{\text{ft}^3}$$

Vapor Space Expansion Factor

For vapor pressure >0.1 psi, $K_E = \Delta T_V/T_{LA} + (\Delta P_V - \Delta P_B)/(P_A - P_{VA})$ (Equation 1.5)

$$K_E = \frac{28.70}{525.96} \frac{\text{R}}{\text{R}} + \frac{3.74\text{E-}03}{13.3} \frac{\text{psi}}{\text{psi}} - \frac{0.06}{7.95\text{E-}03} \frac{\text{psi}}{\text{psi}} = 5.03\text{E-}02$$

Note, a negative K_E indicates no standing losses will occur.

Vented Vapor Saturation Factor

$K_S = 1 / (1+0.053P_{VA}H_{VO})$

$$K_S = \frac{1}{1 + 0.053 * 7.95\text{E-}03 \text{ psia} * 15.63 \text{ ft}} = 9.93\text{E-}01$$

Vent Setting Correction Factor

When breather vents greater than 0.03 psig use the following equation to calculate vent setting correction factor

When $K_N \left[\frac{P_{BP} + P_A}{P_I + P_A}\right] > 1.0$

$$K_B = \left[\frac{\frac{P_I + P_A}{K_N} - P_{VA}}{P_{BP} + P_A - P_{VA}}\right] = 1.00$$

Standing Storage Losses (lb/yr):

$L_S = 365 W_V V_V K_E K_S$

$$L_S = \frac{365 \mid 1.83\text{E-}04 \text{ lb} \mid 1767.15 \text{ ft}^3 \mid 5.03\text{E-}02 \mid 9.93\text{E-}01}{\text{ft}^3} = 5.89\text{E+}00 \frac{\text{lb}}{\text{year}}$$

Working Losses (lb/yr):

$L_W = V_Q K_N K_P W_V K_B$

$$L_W = \frac{33420.14 \text{ ft3}}{\text{year}} \mid 1.00 \mid 1.00 \mid \frac{1.83\text{E-}04 \text{ lb}}{\text{ft3}} \mid \frac{1}{\text{year}} = 6.1080\text{E+}00 \frac{\text{lb}}{\text{year}}$$

Total Losses (lb/yr):

$L_T = L_S + L_W$

$$L_T = \frac{5.89\text{E+}00 \text{ lb}}{\text{year}} + \frac{6.11\text{E+}00 \text{ lb}}{\text{year}} = 1.200\text{E+}01 \frac{\text{lb}}{\text{year}} = 6.00\text{E-}03 \frac{\text{tons}}{\text{year}}$$

Total Losses - Controlled (ton/yr):

$L_{TCont} = L_T * (100\% - DRE)$

$$L_{TCont} = 6.00\text{E-}03 \frac{\text{tons}}{\text{year}} \quad (100\% - 00\%) = 6.00\text{E-}03 \frac{\text{tons}}{\text{year}}$$

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Appendix B-14c: Diesel Storage Fixed Roof Tanks Sample Calculation

Hourly Emissions

Maximum Hourly Losses (lb/hr):

Maximum Hourly Fill Rate

FR_M= 2,000.00 gal/hr

$$L_{MAX} = \frac{M_{V,MAX} \times P_{VMAX} \times FR_M}{R \times T}$$

$$L_{MAX} = \frac{130 \text{ lb/lb-mol} \times 1.87\text{E-}02 \text{ psia} \times 80.273 \text{ psia gal/lb-mole °R}}{554.67 \text{ °R}} \times \frac{2000 \text{ gal}}{\text{hr}} = 1.09\text{E-}01 \text{ lb/hr}$$

Maximum Hourly Losses - Controlled (lb/hr):

$L_{MaxCont} = L_{Max} * DRE$

$L_{MaxCont}$ = 1.09E-01 lb/hr × (100% - 00%) = 1.09E-01 lb/hr

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Appendix B-15: Sulfur Hexafluoride (SF6) Insulated Equipment

I. Basis

Emissions of sulfur hexafluoride (SF_6) from electrical equipment such as generator circuit breakers and high voltage breakers associated with the proposed units were calculated using the estimated circuit breaker SF_6 content and an engineering-estimated annual leakage rate. The Global Warming Potential (GWP) was obtained from EPA's Greenhouse Gas Reporting Program (GHGRP) codified at 40 CFR Part 98.

Unit	Circuit Breaker SF6 Capacity (lbs)	Number of Units	Total Capacity (lbs)	Annual Leakage Rate (%)	SF6 Global Warming Potential (GWP)	SF6 Emissions (lbs/year)	SF6 Emissions (tpy)	CO_2e Emissions (Metric Tonnes)	CO_2e Emissions (Short Tons)
230 kV Circuit Breakers	200	437	87,400	1.00%	23,500	874	0.44	9,316.33	10,269.50
34.5 kV Circuit Breakers	200	186	37,200	1.00%	23,500	372	0.19	3,965.30	4,371.00
Total						**1,246**	**0.62**	**13,282**	**14,641**

II. Example Calculations - 230 kV Circuit Breakers

Example Metric Tonnes Emission Calculation (CO_2e)

$$\frac{200\ \text{lb}}{\text{unit}} \times \frac{437\ \text{units}}{} \times \frac{\text{kg}}{2.20\ \text{lb}} \times 1.0\% \times 23{,}500$$

$$\frac{1\ \text{ton}}{1000\ \text{kg}} = 9{,}316.33\ \text{tpy CO2e from 230 kV Circuit Breakers}$$

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Appendix B-16: GHG Emission Calculations

I. Basis GHG emissions are calculated by taking the total natural gas and other fuel usage and emission factors for fuel combustion from 40-CFR 98. Global warming potentials from IPCC AR5 are utilized to calculated potential CO2 equivalent emissions.

FIN	EPN	Fuel Type	Usage (MMBtu)	CO_2 Emission Factor (kg CO_2/MMBtu)	CH_4 Emission Factor (kg CH_4/MMBtu)	N_2O Emission Factor (kg N_2O/MMBtu)	CH_4 GWP	N_2O GWP	CO_2 Metric Tonnes	CH_4 Metric Tonnes	N_2O Metric Tonnes	CO2e (Metric Tonnes)	CO2e (Short Tons)
CT-1A	CT-1A	Natural Gas	4,617,772	53.06	0.001	0.0001	28	265	245,019	5	0.5	245,271	270,365
CT-2A	CT-2A	Natural Gas	4,617,772	53.06	0.001	0.0001	28	265	245,019	5	0.5	245,271	270,365
CT-3A	CT-3A	Natural Gas	4,617,772	53.06	0.001	0.0001	28	265	245,019	5	0.5	245,271	270,365
CT-4A	CT-4A	Natural Gas	4,617,772	53.06	0.001	0.0001	28	265	245,019	5	0.5	245,271	270,365
CT-5A	CT-5A	Natural Gas	4,617,772	53.06	0.001	0.0001	28	265	245,019	5	0.5	245,271	270,365
CT-6A	CT-6A	Natural Gas	4,617,772	53.06	0.001	0.0001	28	265	245,019	5	0.5	245,271	270,365
CT-7A	CT-7A	Natural Gas	4,617,772	53.06	0.001	0.0001	28	265	245,019	5	0.5	245,271	270,365
CT-8A	CT-8A	Natural Gas	4,617,772	53.06	0.001	0.0001	28	265	245,019	5	0.5	245,271	270,365
CT-9A	CT-9A	Natural Gas	4,617,772	53.06	0.001	0.0001	28	265	245,019	5	0.5	245,271	270,365
CT-10A	CT-10A	Natural Gas	4,617,772	53.06	0.001	0.0001	28	265	245,019	5	0.5	245,271	270,365
CT-11A	CT-11A	Natural Gas	4,617,772	53.06	0.001	0.0001	28	265	245,019	5	0.5	245,271	270,365
CT-12A	CT-12A	Natural Gas	4,617,772	53.06	0.001	0.0001	28	265	245,019	5	0.5	245,271	270,365
CT-13A	CT-13A	Natural Gas	4,617,772	53.06	0.001	0.0001	28	265	245,019	5	0.5	245,271	270,365
CT-14A	CT-14A	Natural Gas	4,617,772	53.06	0.001	0.0001	28	265	245,019	5	0.5	245,271	270,365
CT-15A	CT-15A	Natural Gas	4,617,772	53.06	0.001	0.0001	28	265	245,019	5	0.5	245,271	270,365
CT-16A	CT-16A	Natural Gas	4,617,772	53.06	0.001	0.0001	28	265	245,019	5	0.5	245,271	270,365
CT-17A	CT-17A	Natural Gas	4,617,772	53.06	0.001	0.0001	28	265	245,019	5	0.5	245,271	270,365
CT-18A	CT-18A	Natural Gas	4,617,772	53.06	0.001	0.0001	28	265	245,019	5	0.5	245,271	270,365
CT-19A	CT-19A	Natural Gas	4,617,772	53.06	0.001	0.0001	28	265	245,019	5	0.5	245,271	270,365
CT-20A	CT-20A	Natural Gas	4,617,772	53.06	0.001	0.0001	28	265	245,019	5	0.5	245,271	270,365
CT-21A	CT-21A	Natural Gas	4,617,772	53.06	0.001	0.0001	28	265	245,019	5	0.5	245,271	270,365
CT-1B	CT-1B	Natural Gas	33,437,446	53.06	0.001	0.0001	28	265	1,774,191	33	3.3	1,776,013	1,957,719
CT-2B	CT-2B	Natural Gas	33,437,446	53.06	0.001	0.0001	28	265	1,774,191	33	3.3	1,776,013	1,957,719
CT-3B	CT-3B	Natural Gas	33,437,446	53.06	0.001	0.0001	28	265	1,774,191	33	3.3	1,776,013	1,957,719
CT-4B	CT-4B	Natural Gas	33,437,446	53.06	0.001	0.0001	28	265	1,774,191	33	3.3	1,776,013	1,957,719
CT-5B	CT-5B	Natural Gas	33,437,446	53.06	0.001	0.0001	28	265	1,774,191	33	3.3	1,776,013	1,957,719
CT-6B	CT-6B	Natural Gas	33,437,446	53.06	0.001	0.0001	28	265	1,774,191	33	3.3	1,776,013	1,957,719
CT-7B	CT-7B	Natural Gas	33,437,446	53.06	0.001	0.0001	28	265	1,774,191	33	3.3	1,776,013	1,957,719
CT-8B	CT-8B	Natural Gas	33,437,446	53.06	0.001	0.0001	28	265	1,774,191	33	3.3	1,776,013	1,957,719
CT-9B	CT-9B	Natural Gas	33,437,446	53.06	0.001	0.0001	28	265	1,774,191	33	3.3	1,776,013	1,957,719
CT-10B	CT-10B	Natural Gas	33,437,446	53.06	0.001	0.0001	28	265	1,774,191	33	3.3	1,776,013	1,957,719
CT-11B	CT-11B	Natural Gas	33,437,446	53.06	0.001	0.0001	28	265	1,774,191	33	3.3	1,776,013	1,957,719
CT-12B	CT-12B	Natural Gas	33,437,446	53.06	0.001	0.0001	28	265	1,774,191	33	3.3	1,776,013	1,957,719
CT-13B	CT-13B	Natural Gas	33,437,446	53.06	0.001	0.0001	28	265	1,774,191	33	3.3	1,776,013	1,957,719
CT-14B	CT-14B	Natural Gas	33,437,446	53.06	0.001	0.0001	28	265	1,774,191	33	3.3	1,776,013	1,957,719
DPHEAT1	DPHEAT1	Natural Gas	77,088	53.06	0.001	0.0001	28	265	4,090	0.1	0.01	4,094	4,513
DPHEAT2	DPHEAT2	Natural Gas	77,088	53.06	0.001	0.0001	28	265	4,090	0.1	0.01	4,094	4,513
DPHEAT3	DPHEAT3	Natural Gas	77,088	53.06	0.001	0.0001	28	265	4,090	0.1	0.01	4,094	4,513
DPHEAT4	DPHEAT4	Natural Gas	77,088	53.06	0.001	0.0001	28	265	4,090	0.1	0.01	4,094	4,513
DPHEAT5	DPHEAT5	Natural Gas	77,088	53.06	0.001	0.0001	28	265	4,090	0.1	0.01	4,094	4,513
DPHEAT6	DPHEAT6	Natural Gas	97,236	53.06	0.001	0.0001	28	265	5,159	0.1	0.01	5,165	5,693

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Appendix B-16: GHG Emission Calculations

I. Basis GHG emissions are calculated by taking the total natural gas and other fuel usage and emission factors for fuel combustion from 40-CFR 98. Global warming potentials from IPCC AR5 are utilized to calculated potential CO2 equivalent emissions.

FIN	EPN	Fuel Type	Usage (MMBtu)	CO_2 Emission Factor (kg CO_2/MMBtu)	CH_4 Emission Factor (kg CH_4/MMBtu)	N_2O Emission Factor (kg N_2O/MMBtu)	CH_4 GWP	N_2O GWP	CO_2 Metric Tonnes	CH_4 Metric Tonnes	N_2O Metric Tonnes	CO2e (Metric Tonnes)	CO2e (Short Tons)
DPHEAT7	DPHEAT7	Natural Gas	97,236	53.06	0.001	0.0001	28	265	5,159	0.1	0.01	5,165	5,693
DPHEAT8	DPHEAT8	Natural Gas	97,236	53.06	0.001	0.0001	28	265	5,159	0.1	0.01	5,165	5,693
DPHEAT9	DPHEAT9	Natural Gas	97,236	53.06	0.001	0.0001	28	265	5,159	0.1	0.01	5,165	5,693
DPHEAT10	DPHEAT10	Natural Gas	97,236	53.06	0.001	0.0001	28	265	5,159	0.1	0.01	5,165	5,693
DPHEAT11	DPHEAT11	Natural Gas	97,236	53.06	0.001	0.0001	28	265	5,159	0.1	0.01	5,165	5,693
DPHEAT12	DPHEAT12	Natural Gas	97,236	53.06	0.001	0.0001	28	265	5,159	0.1	0.01	5,165	5,693
DPHEAT13	DPHEAT13	Natural Gas	97,236	53.06	0.001	0.0001	28	265	5,159	0.1	0.01	5,165	5,693
DPHEAT14	DPHEAT14	Natural Gas	97,236	53.06	0.001	0.0001	28	265	5,159	0.1	0.01	5,165	5,693
DPHEAT15	DPHEAT15	Natural Gas	97,236	53.06	0.001	0.0001	28	265	5,159	0.1	0.01	5,165	5,693
DPHEAT16	DPHEAT16	Natural Gas	97,236	53.06	0.001	0.0001	28	265	5,159	0.1	0.01	5,165	5,693
DPHEAT17	DPHEAT17	Natural Gas	97,236	53.06	0.001	0.0001	28	265	5,159	0.1	0.01	5,165	5,693
DPHEAT18	DPHEAT18	Natural Gas	97,236	53.06	0.001	0.0001	28	265	5,159	0.1	0.01	5,165	5,693
DPHEAT19	DPHEAT19	Natural Gas	97,236	53.06	0.001	0.0001	28	265	5,159	0.1	0.01	5,165	5,693
FPUMP1	FPUMP1	Diesel	78	73.96	0.003	0.0006	28	265	6	2.33E-04	4.66E-05	6	6
FPUMP2	FPUMP2	Diesel	78	73.96	0.003	0.0006	28	265	6	2.33E-04	4.66E-05	6	6
EGEN1	EGEN1	Diesel	1,024	73.96	0.003	0.0006	28	265	76	0.003	0.00061	76	84
EGEN2	EGEN2	Diesel	1,024	73.96	0.003	0.0006	28	265	76	0.003	0.00061	76	84
EGEN3	EGEN3	Diesel	1,024	73.96	0.003	0.0006	28	265	76	0.003	0.00061	76	84
EGEN4	EGEN4	Diesel	1,024	73.96	0.003	0.0006	28	265	76	0.003	0.00061	76	84
EGEN5	EGEN5	Diesel	1,024	73.96	0.003	0.0006	28	265	76	0.003	0.00061	76	84
EGEN6	EGEN6	Diesel	1,024	73.96	0.003	0.0006	28	265	76	0.003	0.00061	76	84
EGEN7	EGEN7	Diesel	1,024	73.96	0.003	0.0006	28	265	76	0.003	0.00061	76	84
EGEN8	EGEN8	Diesel	1,024	73.96	0.003	0.0006	28	265	76	0.003	0.00061	76	84
EGEN9	EGEN9	Diesel	1,024	73.96	0.003	0.0006	28	265	76	0.003	0.00061	76	84
EGEN10	EGEN10	Diesel	1,024	73.96	0.003	0.0006	28	265	76	0.003	0.00061	76	84
EGEN11	EGEN11	Diesel	1,024	73.96	0.003	0.0006	28	265	76	0.003	0.00061	76	84
EGEN12	EGEN12	Diesel	1,024	73.96	0.003	0.0006	28	265	76	0.003	0.00061	76	84
EGEN13	EGEN13	Diesel	1,024	73.96	0.003	0.0006	28	265	76	0.003	0.00061	76	84
EGEN14	EGEN14	Diesel	1,024	73.96	0.003	0.0006	28	265	76	0.003	0.00061	76	84
EGEN15	EGEN15	Diesel	1,024	73.96	0.003	0.0006	28	265	76	0.003	0.00061	76	84
ENGINE-1	ENGINE-1	Natural Gas	64,217	53.06	0.001	0.0001	28	265	3,407	0.064	0.006	3,411	3,760
ENGINE-2	ENGINE-2	Natural Gas	64,217	53.06	0.001	0.0001	28	265	3,407	0.064	0.006	3,411	3,760
FUG-SF6	FUG-SF6	Sulfur Hexafluoride	--	--	--	--	--	--	--	--	--	13,282	14,641
MSSFUG	MSSFUG		--	--	--	--	28	265	1.62E-03	3.87E+00	0	108	119
NGFUG	NGFUG	--	--	--	--	--	28	265	0.01	24	0	670	738
Total												**30,129,678**	**33,212,285**

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Appendix B-17: Inherently Low Emitting (ILE) Maintenance Activities

HOURLY EMISSIONS

Maintenance Activity	Appendix Calculation Table	Estimated Hourly Emissions (lb/hr)									
		NOx	CO	PM	PM_{10}	$PM_{2.5}$	VOC	NH_3	H_2S	CO_2	CH_4
Air Intake Filter Maintenance	B-17a			1.52E-01	7.21E-02	1.09E-02					
CEMS Calibration	B-17b	4.18E-03	2.54E-03					1.55E-03			
Analytical Equipment	B-17c						1.02E-01				
Sludge Maintenance	B-17d						2.98E-01				
Small Equipment Maintenance – NH3	B-17e							1.25E-01			
Small Equipment Maintenance – Low VP	B-17f						1.21E+00				
Gaseous Fuel Venting	B-17g						9.83E-02		4.64E-03	2.34E-01	5.60E+02
Offline Turbine Washing	B-17h						6.85E+00				
	Totals	**4.18E-03**	**2.54E-03**	**1.52E-01**	**7.21E-02**	**1.09E-02**	**8.56E+00**	**1.27E-01**	**4.64E-03**	**2.34E-01**	**5.60E+02**

ANNUAL EMISSIONS

Maintenance Activity	Appendix Calculation Table	Estimated Annual Emissions (TPY)									
		NOx	CO	PM	PM_{10}	$PM_{2.5}$	VOC	NH_3	H_2S	CO_2	CH_4
Air Intake Filter Maintenance	B-17a			4.57E-04	2.16E-04	3.27E-05					
CEMS Calibration	B-17b	1.46E-03	8.91E-04					5.41E-04			
Analytical Equipment	B-17c						2.54E-04				
Sludge Maintenance	B-17d						5.80E-02				
Small Equipment Maintenance – NH3	B-17e							3.13E-04			
Small Equipment Maintenance – Low VP	B-17f						1.58E-02				
Gaseous Fuel Venting	B-17g						6.79E-04		3.20E-05	1.62E-03	3.87E+00
Offline Turbine Washing	B-17h						4.80E-01				
	Totals	**1.46E-03**	**8.91E-04**	**4.57E-04**	**2.16E-04**	**3.27E-05**	**5.55E-01**	**8.54E-04**	**3.20E-05**	**1.62E-03**	**3.87E+00**

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Appendix B-17a: Air Intake Filter Maintenance

I. Basis

During air intake filter maintenance, particulate emissions will be generated due to handling of particles dislodged from the filter. Emissions are calculated using EPA AP-42 Chapter 13.2.4 "Aggregate Handling and Storage Piles".

Variables			Source/Notes/Assumptions
E	**Emission Factor (lb PM/ton)**	**0.01742**	
E	**Emission Factor (lb PM_{10}/ton)**	**0.00824**	
E	**Emission Factor (lb $PM_{2.5}$/ton)**	**0.00125**	
$E(lb\ per\ ton) = k \times (0.0032) \times \frac{(\frac{U}{5})^{1.3}}{(\frac{M}{2})^{1.4}}$			Based on U.S. EPA AP-42, 13.2.4 "Aggregate Handling and Storage Piles" (Equation 1).
U	Mean Wind Speed (mph)	11	The mean wind speed is from the average windspeed for Midland, TX obtained from AP-42, Table 7.1-7.
M	Material Moisture Content (%)	1	Estimate based on process knowledge
K (PM)	TSP Particle Size Multiplier	0.74	Particle size multiplier taken from AP-42, Chapter 13.2.4.
K (PM_{10})	PM_{10} Particle Size Multiplier	0.35	Particle size multiplier taken from AP-42, Chapter 13.2.4.
K ($PM_{2.5}$)	$PM_{2.5}$ Particle Size Multiplier	0.05	Particle size multiplier taken from AP-42, Chapter 13.2.4.
CE	Control Efficiency	0%	Assumed Control Efficiency.
-	Material per filter change (lb)	1.00	Process knowledge estimate
-	Hourly Throughput (ton/hr)	8.75	Assumed hourly throughput and 500 filter changeouts/hour/turbine.
-	Annual Throughput (tons/yr)	52.50	Assumed 3,000 filters/yr/turbine.

Emission Summary		Source/Notes/Assumptions
Frequency Routine Maintenance (activity/hr/turbine)	**500**	Assume conservative 500 activities per hour per turbine.
Frequency Routine Maintenance (activity/yr/turbine)	**3000**	Assume maximum activity every year per turbine
Number of Turbines	**35**	

Misc. Filter	lb/hr	tpy
PM	1.52E-01	4.57E-04
PM_{10}	7.21E-02	2.16E-04
$PM_{2.5}$	1.09E-02	3.27E-05

Notes:
1. The emission calculations above represent the worst case emissions that could occur on a "per filter change" basis.

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Appendix B-17b: CEMS Calibration Maintenance

I. Basis

During CEMS calibration, various calibration gasses will be utilized. This calibration gas is released to the atmosphere as part of the activity. Emissions are calculated based on the concentration of the calibration gas as well as the quantity utilized.

Activity	Max Concentration[1] ppm	Flow Rate scfm	Duration Per Event min	Number of Turbines	Event Frequency		Emissions	
					per hr	per yr	lb/hr	tpy
NO_x Cal Gas	1,000	1	1	35	35	700	4.18E-03	1.46E-03
CO Cal Gas	1,000	1	1		35	700	2.54E-03	8.91E-04
NH_3 Cal Gas	1,000	1	1		35	700	1.55E-03	5.41E-04

Notes:

Sample Calculation: **NOx CEMS Calibration Hourly Emissions**

1000 lbmol NOx/1000000 lbmol Gas * 46 lb NOx/lbmol NOx * 1bmol Gas/385.1 scf * 1 scf/min * 1 min/event * 1 events/hr * 35 turbines = 0.00418 lb/hr

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Appendix B-17c: Analytical Equipment Maintenance

I. Basis

During maintenance of analytical equipment, emissions are generated by residual product clingage, liquid loading, and evaporation. Emissions are calculated using analytical equipment sizing based on historical information and process knowledge. As only non-water liquid handled is diesel, this has been used as the basis.

Step 1. Clingage Loss Calculation:

Variables			Source/Notes/Assumptions
L_C **Clingage Loss (lb/activity)**			
$L_C = A_S \times T_f \times D$			
A_s	Surface Area (feet)	0.31	Based on an average size of the equipment.
T_f	Clingage Film Thickness (feet)	8.33E-05	95ºF per TCEQ Guidance.
D	Density of Material (lb/feet^3)	52.46	Based on API Power Regression Analysis for a material with a vapor pressure of 0.15 psia.
	Emissions per Activity (lb/activity)	**0.00135**	

Step 2. Splash Loading Loss Calculation:

Variables			Source/Notes/Assumptions
L_l **Equipment Draining Loading Loss**			
$L_l = 12.46\left(\frac{SPM_v}{T}\right)$			Based on U.S. EPA AP-42, 5.2 "Transportation and Marketing of Petroleum Liquids" (Equation 1).
S	Loading Loss Factor	1.45	Per U.S. EPA AP-42 Table 5.2-1, based on splash loading per TCEQ Guidance.
P	Vapor Pressure of Liquid Loaded (psia)	0.02	Based on representative material.
M_V	Vapor molecular weight (lb/lb-mole)	130	Molecular Weight based on API Power Regression Analysis for a material with a vapor pressure of 0.15 psia.
T	Average daily temperature (ºR)	554.67	95ºF per TCEQ Guidance.
	Emissions per Volume (lb/1000 gal)	0.079	

Variables			Source/Notes/Assumptions
L_D **Equipment Draining Loading loss**			
$L_D = L_l \times V_t$			
L_l	Loading Loss (lb/10^3 gal loaded)	0.079	See calculation above.
V_t	Volume of liquid drained (gallon/activity)	0.0002	Assumed to be 1% of total volume (0.02244 gallons) is left in the equipment and drained to pan/enclosed drain.
	Emissions per Activity (lb/activity)	**1.77E-08**	

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Appendix B-17c: Analytical Equipment Maintenance

Step 3. Evaporative Loss Calculation:

Variables			Source/Notes/Assumptions
$L_E = 7920 \times A \times \left(\frac{P_a M_w}{RT}\right) \times \frac{D_{i,a}}{Z_2 - Z_1} \times ln\left(\frac{1}{1 - y_{c1}}\right) \times t$			Ajay Kumar, N.S. Vatcha, and John Schmelzle, "Estimate Emissions From Atmospheric Releases of Hazardous Substances," Environmental Engineering World, November-December 1996, pages 20-23
A	Vessel opening area (m^2)	0.07	Area for a 5 gal bucket (~11.75 in. dia.)
P_a	Atmospheric Pressure (Pa)	101,325	
M_W	Molecular weight (kg/kgmol)	103	Molecular Weight based on API Power Regression Analysis for a material with a vapor pressure of 0.15 psia
R	Universal Gas Constant (J/°K-kgmol)	8314	
T	Temperature (ºK)	308	95ºF per TCEQ Guidance.
$D_{i,a}$	Diffusivity of component through air (m^2/s)	6.28E-06	Assumed diffusivity of diesel fuel
Z_2-Z_1	Empty vapor space above liquid level in vessel (m)	0.37	Assumed 5 gal bucket (14.5 in)
y_{c1}	Volume fraction of component in air	0.010	
t	Time that material sits in pan before removed by vacuum truck (hr)	0.25	Based on past experience.
	Emissions per Activity (lb/activity)	**9.64E-05**	

Emission Summary		Source/Notes/Assumptions
Total Emissions per activity (lb/activity)	0.001	Summation of Steps 1 through 3.
Frequency Routine Maintenance Activity (activity/hour/turbine)	2	Based on process knowledge and historical information.
Frequency Routine Maintenance Activity (activity/yr/turbine)	10	Based on process knowledge and historical information.
Number of Turbines	35	

Total VOC Emissions	
lb/hr	**ton/yr**
1.02E-01	2.54E-04

Notes:
1. Calculation Basis: Electric Utility MSS Workgroup.
2. The emission calculations below represent the worst case emissions that could occur during routine maintenance or a unit turnaround.

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Appendix B-17d: Sludge Maintenance

I. Basis

During operation, sludge can build up in sumps and other collection points. On occasion, this sludge will need to be removed for treatment and disposal. Emissions are calculated on the estimated VOC content of the sludge and estimated handled quantity.

Activity 1. Sludge/Sediment Management

Description	Worst-Case VOC Concentration ppmw	Sludge Density [1] lb/ft^3	Worst-Case Annual Volume of Sludge Removed yd^3	Worst-Case Monthly Volume of Sludge Removed yd^3	Annual Total Mass of Sludge Removed lb/yr	Hourly Total Mass of Sludge Removed [2] lb/hr	VOC	
							lb/hr	ton/yr
Sludge/Sediment Management	5.00	45.01	19075.00	1960.00	23,181,275	59,548	0.30	0.06

Notes:
1. Engineering Estimate.
2. Assumes worst-case monthly volume of sludge removed in one 40-hour week.
3. The emission calculations below represent the worst case emissions that could occur during routine maintenance or a unit turnaround. For calculation purposes, sludge management via vacuum truck was considered, but emissions from an open pit are provided as more conservative.

Sample Calculations:
Annual Emissions (ton/yr) = Total Mass of Sludge (lbs/yr) x VOC Concentration (ppmw) / 1,000,000 / 2000 lb/ton
= (23,181,275 lbs/yr) * (5 ppmw) / 1,000,000 / 2000 lbs/ton = 0.06 tpy
Hourly Emissions (lb/hr) = Total Mass of Sludge (lbs/hr) x VOC Concentration (ppmw) / 1,000,000
= (59,548 lbs/hr) * (5 ppmw) / 1,000,000 = 0.30 lb/hr

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Appendix B-17e: Small Equipment Maintenance - NH3

I. Basis

Small equipment containing ammonia will require occasional opening and maintenance. After opening, residual ammonia within the equipment will be vented to atmosphere, resulting in emissions of ammonia. Emissions are calculated using the ideal gas law, and estimated equipment parameters.

Step 1. Equipment Opening Maintenance Vapor Space Calculation:

L_o Opening Loss			Source/Notes/Assumptions
			Based on the Ideal Gas Law with modification for VOC molecular weight.
P	Vapor Pressure of Material (psia)	14.70	Since the vapor pressure of anhydrous ammonia is greater than 14.7 the tank pressure prior to venting was used.
V	Vapor space volume ($feet^3$)	0.08522	Based on worst case equipment: 10 feet of 2 inch pipe
T	Average daily temperature (ºR)	554.67	95ºF per TCEQ Guidance.
R	Gas constant (psia ft^3 per lb-mole ºR)	10.73	
M_V	Vapor molecular weight (lb/lb-mole)	17	Molecular weight for ammonia.

Emission Summary		Source/Notes/Assumptions
Total Emissions per activity (lb/activity)	**0.00358**	
Frequency Routine Maintenance Activity (activity/hour/turbine)	**1**	Assumed
Frequency Routine Maintenance Activity (activity/yr/turbine)	**5**	Assumed
Duration Routine Maintenance (hours/activity)	**1**	Assumed
Number of Turbines	**35**	

Total NH_3 Emissions	
lb/hr	**ton/yr**
1.25E-01	3.13E-04

Notes:

1. The emission calculations above represent the worst case emissions that could occur during routine maintenance or a unit turnaround.
2. Calculation Basis: Electric Utility MSS Workgroup. Applicable section utilized for small volume.

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Appendix B-17f: Small Equipment Maintenance - Low VP

I. Basis

During maintenance of small equipment associated with the diesel generators, emissions are generated by residual product clingage, liquid draining, and evaporation. Emissions are calculated using small equipment sizing based on historical information and process knowledge.

Step 1. Clingage Loss Calculation:

Variables			Source/Notes/Assumptions
L_C Clingage Loss (lb/activity)			
$L_C = A_S \times T_f \times D$			
A_s	Surface Area (feet)	3.12	Based on an average size of the equipment.
T_f	Clingage Film Thickness (feet)	8.33E-05	95ºF per TCEQ Guidance.
D	Density of Material (lb/feet^3)	54.16	Based on API Power Regression Analysis for a material with a vapor pressure of 0.15 psia.
	Emissions per Activity (lb/activity)	**0.01408**	

Step 2. Splash Loading Loss Calculation:

Variables			Source/Notes/Assumptions
L_l Equipment Draining Loading Loss			
$L_l = 12.46\left(\frac{SPM_v}{T}\right)$			Based on U.S. EPA AP-42, 5.2 "Transportation and Marketing of Petroleum Liquids" (Equation 1).
S	Loading Loss Factor	1.45	Per U.S. EPA AP-42 Table 5.2-1, based on splash loading per TCEQ Guidance.
P	Vapor Pressure of Liquid Loaded (psia)	0.02	Based on representative material.
M_V	Vapor molecular weight (lb/lb-mole)	130	Molecular Weight based on API Power Regression Analysis for a material with a vapor pressure of 0.15 psia.
T	Average daily temperature (ºR)	554.67	95ºF per TCEQ Guidance.
	Emissions per Volume (lb/1000 gal)	0.079	

Variables			Source/Notes/Assumptions
L_D Equipment Draining Loading loss			
$L_D = L_l \times V_t$			
L_l	Loading Loss (lb/10^3 gal loaded)	0.079	See calculation above.
V_t	Volume of liquid drained (gallon/activity)	2.3200	Assumed to be 1% of total volume (0.02244 gallons) is left in the equipment and drained to pan/enclosed drain.
	Emissions per Activity (lb/activity)	**1.84E-04**	

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Appendix B-17f: Small Equipment Maintenance - Low VP

Step 3. Evaporative Loss Calculation:

Variables			Source/Notes/Assumptions
$L_E = 7920 \times A \times \left(\frac{P_a M_w}{RT}\right) \times \frac{D_{i,a}}{Z_2 - Z_1} \times ln\left(\frac{1}{1 - y_{c1}}\right) \times t$			Ajay Kumar, N.S. Vatcha, and John Schmelzle, "Estimate Emissions From Atmospheric Releases of Hazardous Substances," Environmental Engineering World, November-December 1996, pages 20-23
A	Vessel opening area (m^2)	0.02	Area for a 5 gal bucket (~11.75 in. dia.)
P_a	Atmospheric Pressure (Pa)	101,325	
M_W	Molecular weight (kg/kgmol)	130	Molecular Weight based on API Power Regression Analysis for a material with a vapor pressure of 0.15 psia
R	Universal Gas Constant (J/°K-kgmol)	8314	
T	Temperature (ºK)	308	95ºF per TCEQ Guidance.
$D_{i,a}$	Diffusivity of component through air (m^2/s)	6.28E-06	Assumed diffusivity of diesel fuel
Z_2-Z_1	Empty vapor space above liquid level in vessel (m)	0.15	Assumed 5 gal bucket (14.5 in)
y_{c1}	Volume fraction of component in air	0.001	
t	Time that material sits in pan before removed by vacuum truck (hr)	0.25	Based on past experience.
	Emissions per Activity (lb/activity)	**8.53E-06**	

Emission Summary		Source/Notes/Assumptions
Total Emissions per activity (lb/activity)	0.014	Summation of Steps 1 through 3.
Frequency Routine Maintenance Activity (activity/hour/engine)	5	Based on process knowledge and historical information.
Frequency Routine Maintenance Activity (activity/yr/engine)	130	Based on process knowledge and historical information.
Number of Engine	17	

Total VOC Emissions	
lb/hr	ton/yr
1.21E+00	1.58E-02

Notes:
1. Calculation Basis: Electric Utility MSS Workgroup.
2. The emission calculations below represent the worst case emissions that could occur during routine maintenance or a unit turnaround.

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Appendix B-17g: Gaseous Fuel Venting Maintenance Activity

I. Basis

During turbine maintenance, gaseous fuel lines may need to be purged to facilitate maintenance operations. The emissions associated with these activities are calculated using the ideal gas law, and fuel line sizing.

Piping Description	Initial Conditions					Final Conditions					Number of Turbines	Emissions	
Location	Max Hourly Volume[1] (ft^3)	Annual Volume[1] (ft^3)	Press. (psia)	Temp. (°Rank)	Z	Press. (psia)	Temp. (°F)	Max Hourly Volume[2] (scf)	Annual Volume[2] (scf)	Z		Hourly (lb/hr)	Annual (tpy)
Fuel Line	83	1,146	**64.7**	**510**	**98.68%**	14.7	**528**	382	5273	**99.65%**	**35**	5.71E+02	3.95E+00
Small Equipment	0.7	6.7	**64.7**	**510**	**98.68%**	14.7	**528**	3	31	**99.65%**		4.82E+00	2.31E-02

1. Initial volume is calculated by multiplying the cross sectional area by the length of pipe using the following formula: V_i = pi * [(diameter in inches/12)/2]^2 * length in feet = ft^3
2. Final volume calculated using ideal gas law [$(PV/ZT)_i = (PV/ZT)_f$]. $V_f = V_i (P_i/P_f) (T_f/T_i) (Z_f/Z_i)$, where Z is estimated using the following equation: $Z = 0.9994 - 0.0002P + 3E\text{-}08P^2$.
3. Additional Assumptions:

Nat Gas MW 16.48 lb/lbmol (From Natural Gas Analysis)
VOC Content of Nat Gas : 0.016% by mass (From Natural Gas Analysis)
H_2S Content of Nat Gas : 0.001% by mass (From Natural Gas Analysis)
CO_2 Content of Nat Gas : 0.04% by mass (From Natural Gas Analysis)
CH_4 Content of Nat Gas : 98.08% by mass (From Natural Gas Analysis)

Example calculation:

380 scf / hr	lbmole / 385.5 scf	16.48 lb Nat / lbmole Nat Gas	0.00016 lb VOC / lb Nat Gas	=	2.60E-03 lb/hr

Calculation Basis: Electric Utility MSS Workgroup.

Compound	Weight Fraction	Hourly (lb/hr)	Annual (tpy)
Methane	98.08%	560.49	3.87
Ethane	0.83%	4.77	0.03
Propane	0.015%	0.09	5.96E-04
Isobutane	0.001%	3.20E-03	2.21E-05
n-butane	0.001%	3.20E-03	2.21E-05
Carbon Dioxide	0.04%	0.23	1.62E-03
Nitrogen	1.027%	5.87	0.04
Hydrogen Sulfide	0.001%	4.64E-03	3.20E-05
Ethyl Mercaptan	0.001%	0.01	3.84E-05
Total VOC Emissions		**0.10**	**6.79E-04**

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Appendix B-17h: Offline Turbine Washing Maintenance Activity

I. Basis

Turbines require occasional washing, utilizing a VOC cleaner, diluted with water. Emissions are generated by the evaporation of VOC in the cleaner solution after application. Annual emissions are calculated based upon estimated usage.

Cleaning Solvent VOC Content (Undiluted)	1.37	lb/gal	Water Based Gas Turbine Compressor Blade Cleaner (CONNTECT 6000 Compound Cleaning Liquid)
As-Applied Cleaning Solvent	0.27	lb/gal	(VOC Content as mixed with water)
Maximum Hourly Usage	25	gal/hr	(As mixed)
Maximum Annual Usage	3,500	gal/year	(As mixed)

II. Short-Term Emissions:

$$25 \frac{gal}{hr} \times 0.274 \frac{lb}{gal} = \mathbf{6.85} \frac{\mathbf{lb}}{\mathbf{hr}}$$

III. Annual Emissions:

$$3{,}500 \frac{gal}{yr} \times 0.274 \frac{lb}{gal} \times \frac{1}{2000} \frac{ton}{lbs} = \mathbf{0.48} \frac{\mathbf{tons}}{\mathbf{yr}}$$

Compound	Weight Fraction	Hourly (lb/hr)	Annual (tpy)
Ethylene Glycol Monobutyl Ether	33.33%	2.28	0.16
Ethoxylated Alcohols C9-C11	66.67%	4.57	0.32

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Appendix B-17i: Online Turbine Washing Maintenance Activity

I. Basis

While the turbines are online, the blades require water washes to reduce gross accumulation of airborne particulates between offline washes and compressor maintenance. During online washes, water is sprayed at approximately 12 gallons per minute, dislodging any accumulated particulate on the blade surfaces. The water and dislodged material is pulled into the turbines, where it passes through the compressor. Any water will evaporate due to the high compressor temperature, but any residual particulates will exit through the turbine stack.

During online washing events, the turbine is not fired, but rather is in a maintenance mode. As such, normal/routine combustion emissions do not occur during this MSS activity. The particulate emissions generated by online washing are significantly less than during normal combustion operation, and therefore the hourly PM/PM10/PM2.5 emissions during normal/routine operations represent the Maximum Allowable Emission Rate (MAER). Likewise, the turbine annual MAER is conservatively based on 8760 hours of normal operation. Periods of online washing will offset a period of normal operation and therefore were not added to the annual PM/PM10/PM2.5 MAER limits.

Turbine Type	Turbine Blade Surface Area (ft^2)[1]	Fraction of turbine blade covered in dust (%)	Dust depth (inches)	Dust density (lb/ft^3)	Total Dust Dislodged (ft3)	Events per Year	Total Quantity of Dust Dislodged per Event PM/PM10/PM2.5 (lb/hr)	Total Quantity of Dust Dislodged per year PM/PM10/PM2.5 (tpy)
Siemens SGT800	850	5%	9.84E-05	66.16	3.49E-04	7665	2.31E-02	8.84E-02
Large Frame Turbine	1700	5%	9.84E-05	66.16	6.97E-04	5110	4.61E-02	1.18E-01

1. Surface area based on assumption of 17 4' blades for large frame turbines and 17 2' blades for Siemens SGT800 turbines

2. Dust density based on average from

http://www.powderandbulk.com/resources/bulk_density/material_bulk_density_chart_f.htm 54 lb/ft
http://www.simetric.co.uk/si_materials.htm
http://www.asiinstr.com/technical/Material_Bulk_Density_Chart_F.htm

3. Calculations assuming cleaning water contains no dissolved solids.

Example Siemens SGT800

$$\frac{850\ \text{ft2}}{}\ \frac{5\%}{}\ \frac{9.84\text{E-}05\ \text{inches}}{12\ \text{inches/ft}}\ \frac{66.16\ \text{lb}}{\text{ft3}} = \frac{2.31\text{E-}02\ \text{lb}}{\text{event}}$$

$$\frac{2.31\text{E-}02\ \text{lb}}{\text{event}}\ \frac{7665\ \text{events}}{\text{year}}\ \frac{\text{ton}}{2000\ \text{lbs}} = \frac{8.84\text{E-}02\ \text{tons}}{\text{year}}$$

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Appendix B-18: Speciated Emissions Summary

Hourly Speciated Emission Rate (lb/hr)

Pollutants	CAS	HOURLY (lb/hr)									
		SGT800 Turbines	Large Frame Turbines	Dew Point Heaters	Fugitives	Fire System Pumps	Emergency Generators	Supplemental Engines	Diesel Tanks	Oil Vents	Total
1,1,2,2-Tetrachloroethane	79-34-5	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.10E-02	0.00E+00	0.00E+00	1.10E-02
1,1,2-Trichloroethane	79-00-5	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.76E-03	0.00E+00	0.00E+00	8.76E-03
1,1-Dichloroethane	75-34-3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.50E-03	0.00E+00	0.00E+00	6.50E-03
1,2,3-Trimethylbenzene	526-73-8	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.34E-03	0.00E+00	0.00E+00	6.34E-03
1,2,4-Trimethylbenzene	95-63-6	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.94E-03	0.00E+00	0.00E+00	3.94E-03
1,2-Dichloroethane	107-06-2	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.50E-03	0.00E+00	0.00E+00	6.50E-03
1,2-Dichloropropane	78-87-5	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.41E-03	0.00E+00	0.00E+00	7.41E-03
1,3,5-Trimethylbenzene	108-67-8	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.31E-03	0.00E+00	0.00E+00	9.31E-03
2-Methylnaphthalene	91-57-6	0.00E+00	0.00E+00	4.20E-06	0.00E+00	0.00E+00	0.00E+00	9.15E-03	0.00E+00	0.00E+00	9.15E-03
3-Methylnaphthalene	91-10-1	0.00E+00	0.00E+00	3.15E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.15E-07
1,3 Butadiene	106-99-0	4.76E-03	2.30E-02	0.00E+00	0.00E+00	1.67E-04	1.65E-02	7.36E-02	0.00E+00	0.00E+00	1.18E-01
1,3-Dichloropropene	542-75-6	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.27E-03	0.00E+00	0.00E+00	7.27E-03
2,2,4-Trimethylpentane	540-84-1	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.89E-02	0.00E+00	0.00E+00	6.89E-02
7.12 Dimethylbenzanthracene	57-97-6	0.00E+00	0.00E+00	2.80E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.80E-06
Acenaphthene	83-32-9	0.00E+00	0.00E+00	3.15E-07	0.00E+00	6.06E-06	6.00E-04	3.44E-04	0.00E+00	0.00E+00	9.51E-04
Acenaphthylene	208-96-8	0.00E+00	0.00E+00	3.15E-07	0.00E+00	2.16E-05	2.14E-03	1.52E-03	0.00E+00	0.00E+00	3.68E-03
Acetaldehyde	75-07-0	4.43E-01	2.14E+00	0.00E+00	0.00E+00	3.28E-03	3.24E-01	2.30E+00	0.00E+00	0.00E+00	5.21E+00
Acrolein	107-02-8	7.08E-02	3.42E-01	0.00E+00	0.00E+00	3.95E-04	3.91E-02	1.42E+00	0.00E+00	0.00E+00	1.87E+00
Anthracene	120-12-7	0.00E+00	0.00E+00	4.20E-07	0.00E+00	7.98E-06	7.90E-04	0.00E+00	0.00E+00	0.00E+00	7.98E-04
Benz(a)anthracene	56-55-3	0.00E+00	0.00E+00	3.15E-07	0.00E+00	7.17E-06	7.10E-04	0.00E+00	0.00E+00	0.00E+00	7.17E-04
Benzene	71-43-2	1.33E-01	6.41E-01	3.67E-04	0.00E+00	3.98E-03	3.94E-01	1.21E-01	0.00E+00	0.00E+00	1.29E+00
Benzo(a)pyrene	50-32-8	0.00E+00	0.00E+00	2.10E-07	0.00E+00	8.03E-07	7.94E-05	0.00E+00	0.00E+00	0.00E+00	8.04E-05
Benzo(e)pyrene	192-97-2	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.14E-04	0.00E+00	0.00E+00	1.14E-04
Benzo(b)fluoranthene	205-99-2	0.00E+00	0.00E+00	3.15E-07	0.00E+00	4.23E-07	4.19E-05	4.57E-05	0.00E+00	0.00E+00	8.83E-05
Benzo(g,h,i)perylene	191-24-2	0.00E+00	0.00E+00	2.10E-07	0.00E+00	2.09E-06	2.07E-04	1.14E-04	0.00E+00	0.00E+00	3.23E-04
Benzo(k)fluoranthene	207-08-9	0.00E+00	0.00E+00	3.15E-07	0.00E+00	6.62E-07	6.55E-05	0.00E+00	0.00E+00	0.00E+00	6.65E-05
Biphenyl	92-52-4	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.84E-02	0.00E+00	0.00E+00	5.84E-02
Butane	106-97-8	0.00E+00	0.00E+00	3.67E-01	0.00E+00	0.00E+00	0.00E+00	1.49E-01	0.00E+00	0.00E+00	5.16E-01
Butyr/isobutyraldehyde	78-84-2	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.78E-02	0.00E+00	0.00E+00	2.78E-02
Carbon Tetrachloride	56-23-5	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.01E-02	0.00E+00	0.00E+00	1.01E-02
Chlorobenzene	108-90-7	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.38E-03	0.00E+00	0.00E+00	8.38E-03
Chloroethane	75-00-3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.15E-04	0.00E+00	0.00E+00	5.15E-04
Chloroform	67-66-3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.85E-03	0.00E+00	0.00E+00	7.85E-03
Chrysene	218-01-9	0.00E+00	0.00E+00	3.15E-07	0.00E+00	1.51E-06	1.49E-04	1.91E-04	0.00E+00	0.00E+00	3.42E-04
Cyclopentane	287-92-3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.25E-02	0.00E+00	0.00E+00	6.25E-02
Dibenzo(a,h)anthracene	53-70-3	0.00E+00	0.00E+00	2.10E-07	0.00E+00	2.49E-06	2.46E-04	0.00E+00	0.00E+00	0.00E+00	2.49E-04
Dichlorobenzene	25321-22-6	0.00E+00	0.00E+00	2.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.10E-04
Ethane	74-84-0	0.00E+00	0.00E+00	5.42E-01	4.82E+00	0.00E+00	0.00E+00	2.89E+01	0.00E+00	0.00E+00	3.43E+01
Ethylbenzene	100-41-4	3.54E-01	1.71E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.09E-02	0.00E+00	0.00E+00	2.08E+00
Ethyl Mercaptan	75-08-1	0.00E+00	0.00E+00	0.00E+00	5.63E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.63E-03
Ethylene Dibromide	106-93-4	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.22E-02	0.00E+00	0.00E+00	1.22E-02
Ethylene Glycol Monobutyl Ether	111-76-2	0.00E+00	0.00E+00	0.00E+00	2.28E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.28E+00
Ethoxylated Alcohols C9-C11	68439-46-3	0.00E+00	0.00E+00	0.00E+00	4.57E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.57E+00
Fluoranthene	206-44-0	0.00E+00	0.00E+00	5.25E-07	0.00E+00	3.25E-05	3.21E-03	3.06E-04	0.00E+00	0.00E+00	3.55E-03
Fluorene	86-73-7	0.00E+00	0.00E+00	4.90E-07	0.00E+00	1.25E-04	1.23E-02	1.56E-03	0.00E+00	0.00E+00	1.40E-02
Formaldehyde	50-00-0	2.42E+00	1.17E+01	1.31E-02	0.00E+00	5.04E-03	4.98E-01	9.27E+00	0.00E+00	0.00E+00	2.39E+01
Hexane	110-54-3	0.00E+00	0.00E+00	3.15E-01	0.00E+00	0.00E+00	0.00E+00	3.06E-01	0.00E+00	0.00E+00	6.21E-01
Hydrogen sulfide	7783-06-4	0.00E+00	0.00E+00	0.00E+00	4.69E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.69E-03
Indeno(1,2,3-cd)pyrene	193-39-5	0.00E+00	0.00E+00	3.15E-07	0.00E+00	1.60E-06	1.58E-04	0.00E+00	0.00E+00	0.00E+00	1.60E-04
Isobutane	75-28-5	0.00E+00	0.00E+00	0.00E+00	3.23E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.23E-03
n-butane	106-97-8	0.00E+00	0.00E+00	0.00E+00	3.23E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.23E-03
n-Nonane	111-84-2	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.03E-02	0.00E+00	0.00E+00	3.03E-02
n-Octane	111-65-9	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.67E-02	0.00E+00	0.00E+00	9.67E-02
Methanol	67-56-1	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.89E-01	0.00E+00	0.00E+00	6.89E-01
Methylcyclohexane	108-87-2	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.39E-01	0.00E+00	0.00E+00	3.39E-01
Methylene Chloride	75-09-2	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.51E-03	0.00E+00	0.00E+00	5.51E-03
Naphthalene	91-20-3	1.44E-02	6.95E-02	1.07E-04	0.00E+00	3.62E-04	3.58E-02	2.05E-02	0.00E+00	0.00E+00	1.41E-01
PAH		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.41E-03	0.00E+00	0.00E+00	7.41E-03
Pentane	109-66-0	0.00E+00	0.00E+00	4.55E-01	0.00E+00	0.00E+00	0.00E+00	7.16E-01	0.00E+00	0.00E+00	1.17E+00
Phenanthrene	85-01-8	0.00E+00	0.00E+00	2.97E-06	0.00E+00	1.26E-04	1.24E-02	2.87E-03	0.00E+00	0.00E+00	1.54E-02
Phenol	108-95-2	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.61E-03	0.00E+00	0.00E+00	6.61E-03
Propane	74-98-6	0.00E+00	0.00E+00	2.80E-01	8.73E-02	0.00E+00	0.00E+00	1.15E+01	0.00E+00	0.00E+00	1.19E+01
Propylene	115-07-1	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.10E-02	1.09E+00	0.00E+00	0.00E+00	0.00E+00	1.10E+00
Propylene Oxide	75-56-9	3.21E-01	1.55E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.87E+00
Pyrene	129-00-0	0.00E+00	0.00E+00	8.75E-07	0.00E+00	2.04E-05	2.02E-03	3.75E-04	0.00E+00	0.00E+00	2.42E-03
Styrene	100-42-5	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.50E-03	0.00E+00	0.00E+00	6.50E-03
Tetrachloroethane	79-34-5	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.83E-04	0.00E+00	0.00E+00	6.83E-04
Toluene	108-88-3	1.44E+00	6.95E+00	5.95E-04	0.00E+00	1.75E-03	1.73E-01	1.12E-01	0.00E+00	0.00E+00	8.67E+00
Vinyl Chloride	75-01-4	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.11E-03	0.00E+00	0.00E+00	4.11E-03
Xylene	1330-20-7	7.08E-01	3.42E+00	0.00E+00	0.00E+00	1.22E-03	1.20E-01	5.07E-02	0.00E+00	0.00E+00	4.30E+00
Sulfur Hexafluoride	2551-62-4	0.00E+00	0.00E+00	0.00E+00	1.42E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.42E-01
Nitrous Oxide	10024-97-2	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.65E-03	5.59E-01	0.00E+00	0.00E+00	0.00E+00	5.64E-01
Lube Oil	72623-86-0	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.35E-01	6.35E-01
Diesel	68334-30-5	0.00E+00	0.00E+00	0.00E+00	8.56E+00	0.00E+00	0.00E+00	0.00E+00	7.64E-01	0.00E+00	9.32E+00
Ammonia	7664-41-7	1.51E+02	7.28E+02	0.00E+00	1.42E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.79E+02

Pacifico GW LLC
NSR Air Permit Application
August 2025

Appendix B-18: Speciated Emissions Summary

Annual Speciated Emission Rate (tpy)

Pollutants	CAS	ANNUAL (TPY)									
		SGT800 Turbines	Large Frame Turbines	Dew Point Heaters	Fugitives	Fire System Pumps	Emergency Generators	Supplemental Engines	Diesel Tanks	Oil Vents	Total
1,1,2,2-Tetrachloroethane	79-34-5	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.51E-03	0.00E+00	0.00E+00	5.51E-03
1,1,2-Trichloroethane	79-00-5	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.38E-03	0.00E+00	0.00E+00	4.38E-03
1,1-Dichloroethane	75-34-3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.25E-03	0.00E+00	0.00E+00	3.25E-03
1,2,3-Trimethylbenzene	526-73-8	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.17E-03	0.00E+00	0.00E+00	3.17E-03
1,2,4-Trimethylbenzene	95-63-6	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.97E-03	0.00E+00	0.00E+00	1.97E-03
1,2-Dichloroethane	107-06-2	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.25E-03	0.00E+00	0.00E+00	3.25E-03
1,2-Dichloropropane	78-87-5	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.71E-03	0.00E+00	0.00E+00	3.71E-03
1,3,5-Trimethylbenzene	108-67-8	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.66E-03	0.00E+00	0.00E+00	4.66E-03
2-Methylnaphthalene	91-57-6	0.00E+00	0.00E+00	2.05E-05	0.00E+00	0.00E+00	0.00E+00	4.57E-03	0.00E+00	0.00E+00	4.59E-03
3-Methylnaphthalene	91-10-1	0.00E+00	0.00E+00	1.54E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.54E-06
1,3 Butadiene	106-99-0	2.08E-02	1.01E-01	0.00E+00	0.00E+00	8.35E-06	8.26E-04	3.68E-02	0.00E+00	0.00E+00	1.59E-01
1,3-Dichloropropene	542-75-6	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.64E-03	0.00E+00	0.00E+00	3.64E-03
2,2,4-Trimethylpentane	540-84-1	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.44E-02	0.00E+00	0.00E+00	3.44E-02
7.12 Dimethylbenzanthracene	57-97-6	0.00E+00	0.00E+00	1.37E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.37E-05
Acenaphthene	83-32-9	0.00E+00	0.00E+00	1.54E-06	0.00E+00	3.03E-07	3.00E-05	1.72E-04	0.00E+00	0.00E+00	2.04E-04
Acenaphthylene	208-96-8	0.00E+00	0.00E+00	1.54E-06	0.00E+00	1.08E-06	1.07E-04	7.62E-04	0.00E+00	0.00E+00	8.71E-04
Acetaldehyde	75-07-0	1.94E+00	9.36E+00	0.00E+00	0.00E+00	1.64E-04	1.62E-02	1.15E+00	0.00E+00	0.00E+00	1.25E+01
Acrolein	107-02-8	3.10E-01	1.50E+00	0.00E+00	0.00E+00	1.97E-05	1.95E-03	7.08E-01	0.00E+00	0.00E+00	2.52E+00
Anthracene	120-12-7	0.00E+00	0.00E+00	2.05E-06	0.00E+00	3.99E-07	3.95E-05	0.00E+00	0.00E+00	0.00E+00	4.20E-05
Benz(a)anthracene	56-55-3	0.00E+00	0.00E+00	1.54E-06	0.00E+00	3.59E-07	3.55E-05	0.00E+00	0.00E+00	0.00E+00	3.74E-05
Benzene	71-43-2	5.82E-01	2.81E+00	1.80E-03	0.00E+00	1.99E-04	1.97E-02	6.06E-02	0.00E+00	0.00E+00	3.47E+00
Benzo(a)pyrene	50-32-8	0.00E+00	0.00E+00	1.03E-06	0.00E+00	4.01E-08	3.97E-06	0.00E+00	0.00E+00	0.00E+00	5.04E-06
Benzo(e)pyrene	192-97-2	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.72E-05	0.00E+00	0.00E+00	5.72E-05
Benzo(b)fluoranthene	205-99-2	0.00E+00	0.00E+00	1.54E-06	0.00E+00	2.12E-08	2.09E-06	2.29E-05	0.00E+00	0.00E+00	2.65E-05
Benzo(g,h,i)perylene	191-24-2	0.00E+00	0.00E+00	1.03E-06	0.00E+00	1.04E-07	1.03E-05	5.70E-05	0.00E+00	0.00E+00	6.85E-05
Benzo(k)fluoranthene	207-08-9	0.00E+00	0.00E+00	1.54E-06	0.00E+00	3.31E-08	3.27E-06	0.00E+00	0.00E+00	0.00E+00	4.85E-06
Biphenyl	92-52-4	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.92E-02	0.00E+00	0.00E+00	2.92E-02
Butane	106-97-8	0.00E+00	0.00E+00	1.80E+00	0.00E+00	0.00E+00	0.00E+00	7.45E-02	0.00E+00	0.00E+00	1.87E+00
Butyr/isobutyraldehyde	78-84-2	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.39E-02	0.00E+00	0.00E+00	1.39E-02
Carbon Tetrachloride	56-23-5	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.06E-03	0.00E+00	0.00E+00	5.06E-03
Chlorobenzene	108-90-7	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.19E-03	0.00E+00	0.00E+00	4.19E-03
Chloroethane	75-00-3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.58E-04	0.00E+00	0.00E+00	2.58E-04
Chloroform	67-66-3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.93E-03	0.00E+00	0.00E+00	3.93E-03
Chrysene	218-01-9	0.00E+00	0.00E+00	1.54E-06	0.00E+00	7.54E-08	7.46E-06	9.55E-05	0.00E+00	0.00E+00	1.05E-04
Cyclopentane	287-92-3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.13E-02	0.00E+00	0.00E+00	3.13E-02
Dibenzo(a,h)anthracene	53-70-3	0.00E+00	0.00E+00	1.03E-06	0.00E+00	1.24E-07	1.23E-05	0.00E+00	0.00E+00	0.00E+00	1.35E-05
Dichlorobenzene	25321-22-6	0.00E+00	0.00E+00	1.03E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.03E-03
Ethane	74-84-0	0.00E+00	0.00E+00	2.65E+00	2.57E-01	0.00E+00	0.00E+00	1.45E+01	0.00E+00	0.00E+00	1.74E+01
Ethylbenzene	100-41-4	1.55E+00	7.49E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.47E-03	0.00E+00	0.00E+00	9.05E+00
Ethyl Mercaptan	75-08-1	0.00E+00	0.00E+00	0.00E+00	3.00E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.00E-04
Ethylene Dibromide	106-93-4	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.10E-03	0.00E+00	0.00E+00	6.10E-03
Ethylene Glycol Monobutyl Ether	111-76-2	0.00E+00	0.00E+00	0.00E+00	1.60E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.60E-01
Ethoxylated Alcohols C9-C11	68439-46-3	0.00E+00	0.00E+00	0.00E+00	3.20E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.20E-01
Fluoranthene	206-44-0	0.00E+00	0.00E+00	2.57E-06	0.00E+00	1.62E-06	1.61E-04	1.53E-04	0.00E+00	0.00E+00	3.18E-04
Fluorene	86-73-7	0.00E+00	0.00E+00	2.40E-06	0.00E+00	6.23E-06	6.17E-04	7.81E-04	0.00E+00	0.00E+00	1.41E-03
Formaldehyde	50-00-0	1.06E+01	5.12E+01	6.42E-02	0.00E+00	2.52E-04	2.49E-02	4.64E+00	0.00E+00	0.00E+00	6.65E+01
Hexane	110-54-3	0.00E+00	0.00E+00	1.54E+00	0.00E+00	0.00E+00	0.00E+00	1.53E-01	0.00E+00	0.00E+00	1.69E+00
Hydrogen sulfide	7783-06-4	0.00E+00	0.00E+00	0.00E+00	2.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.50E-04
Indeno(1,2,3-cd)pyrene	193-39-5	0.00E+00	0.00E+00	1.54E-06	0.00E+00	8.01E-08	7.92E-06	0.00E+00	0.00E+00	0.00E+00	9.54E-06
Isobutane	75-28-5	0.00E+00	0.00E+00	0.00E+00	1.72E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.72E-04
n-butane	106-97-8	0.00E+00	0.00E+00	0.00E+00	1.72E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.72E-04
n-Nonane	111-84-2	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.52E-02	0.00E+00	0.00E+00	1.52E-02
n-Octane	111-65-9	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.84E-02	0.00E+00	0.00E+00	4.84E-02
Methanol	67-56-1	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.44E-01	0.00E+00	0.00E+00	3.44E-01
Methylcyclohexane	108-87-2	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.69E-01	0.00E+00	0.00E+00	1.69E-01
Methylene Chloride	75-09-2	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.76E-03	0.00E+00	0.00E+00	2.76E-03
Naphthalene	91-20-3	6.30E-02	3.04E-01	5.22E-04	0.00E+00	1.81E-05	1.79E-03	1.02E-02	0.00E+00	0.00E+00	3.80E-01
PAH	0	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.71E-03	0.00E+00	0.00E+00	3.71E-03
Pentane	109-66-0	0.00E+00	0.00E+00	2.23E+00	0.00E+00	0.00E+00	0.00E+00	3.58E-01	0.00E+00	0.00E+00	2.58E+00
Phenanthrene	85-01-8	0.00E+00	0.00E+00	1.46E-05	0.00E+00	6.28E-06	6.21E-04	1.43E-03	0.00E+00	0.00E+00	2.07E-03
Phenol	108-95-2	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.31E-03	0.00E+00	0.00E+00	3.31E-03
Propane	74-98-6	0.00E+00	0.00E+00	1.37E+00	4.66E-03	0.00E+00	0.00E+00	5.77E+00	0.00E+00	0.00E+00	7.15E+00
Propylene	115-07-1	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.51E-04	5.45E-02	0.00E+00	0.00E+00	0.00E+00	5.50E-02
Propylene Oxide	75-56-9	1.41E+00	6.79E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.19E+00
Pyrene	129-00-0	0.00E+00	0.00E+00	4.28E-06	0.00E+00	1.02E-06	1.01E-04	1.87E-04	0.00E+00	0.00E+00	2.94E-04
Styrene	100-42-5	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.25E-03	0.00E+00	0.00E+00	3.25E-03
Tetrachloroethane	79-34-5	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.42E-04	0.00E+00	0.00E+00	3.42E-04
Toluene	108-88-3	6.30E+00	3.04E+01	2.91E-03	0.00E+00	8.73E-05	8.64E-03	5.62E-02	0.00E+00	0.00E+00	3.68E+01
Vinyl Chloride	75-01-4	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.05E-03	0.00E+00	0.00E+00	2.05E-03
Xylene	1330-20-7	3.10E+00	1.50E+01	0.00E+00	0.00E+00	6.08E-05	6.02E-03	2.53E-02	0.00E+00	0.00E+00	1.81E+01
Sulfur Hexafluoride	2551-62-4	0.00E+00	0.00E+00	0.00E+00	6.23E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.23E-01
Nitrous Oxide	10024-97-2	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.82E-04	2.79E-02	0.00E+00	0.00E+00	0.00E+00	2.82E-02
Lube Oil	72623-86-0	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.78E+00	2.78E+00
Diesel	68334-30-5	0.00E+00	0.00E+00	0.00E+00	5.55E-01	0.00E+00	0.00E+00	0.00E+00	3.31E-02	0.00E+00	5.88E-01
Ammonia	7664-41-7	3.30E+02	1.59E+03	0.00E+00	6.75E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.92E+03

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Appendix B-19: Hazardous Air Pollutant (HAP) Emissions Summary

Speciated Totals				
Chemical	**HAP Component**	**Vapor Mass Fraction (%)**	**Total from Speciation**	**Speciated HAP Total**
1,1,2,2-Tetrachloroethane	1,1,2,2-Tetrachloroethane	100%	5.51E-03	5.51E-03
1,1,2-Trichloroethane	1,1,2-Trichloroethane	100%	4.38E-03	4.38E-03
1,1-Dichloroethane	1,1-Dichloroethane	100%	3.25E-03	3.25E-03
1,2-Dichloroethane	1,2-Dichloroethane	100%	3.25E-03	3.25E-03
1,2-Dichloropropane	1,2-Dichloropropane	100%	3.71E-03	3.71E-03
2-Methylnaphthalene	POM	100%	4.59E-03	4.59E-03
3-Methylnaphthalene	POM	100%	1.54E-06	1.54E-06
2,2,4-Trimethylpentane	2,2,4-Trimethylpentane	100%	3.44E-02	3.44E-02
7.12 Dimethylbenzanthracene	POM	100%	1.37E-05	1.37E-05
1,3 butadiene	1,3 butadiene	100%	1.59E-01	1.59E-01
1,3-Dichloropropene	1,3-Dichloropropene	100%	3.64E-03	3.64E-03
Acenaphthene	POM	100%	2.04E-04	2.04E-04
Acenaphthylene	POM	100%	8.71E-04	8.71E-04
Acetaldehyde	Acetaldehyde	100%	1.25E+01	1.25E+01
Acrolein	Acrolein	100%	2.52E+00	2.52E+00
Anthracene	POM	100%	4.20E-05	4.20E-05
Benz(a)anthracene	POM	100%	3.74E-05	3.74E-05
Benzene	Benzene	100%	3.47E+00	3.47E+00
Benzo(a)pyrene	POM	100%	5.04E-06	5.04E-06
Benzo(e)pyrene	POM	100%	5.72E-05	5.72E-05
Benzo(b)fluoranthene	POM	100%	2.65E-05	2.65E-05
Benzo(g,h,i)perylene	POM	100%	6.85E-05	6.85E-05
Benzo(k)fluoranthene	POM	100%	4.85E-06	4.85E-06
Biphenyl	Biphenyl	100%	2.92E-02	2.92E-02
Carbon Tetrachloride	Carbon Tetrachloride	100%	5.06E-03	5.06E-03
Chloroethane	Chloroethane	100%	2.58E-04	2.58E-04
Chlorobenzene	Chlorobenzene	100%	4.19E-03	4.19E-03
Chloroform	Chloroform	100%	3.93E-03	3.93E-03
Chrysene	POM	100%	1.05E-04	1.05E-04
Dibenzo(a,h)anthracene	POM	100%	1.35E-05	1.35E-05
Dichlorobenzene	Dichlorobenzene	100%	1.03E-03	1.03E-03
Ethylbenzene	Ethylbenzene	100%	9.05E+00	9.05E+00
Ethylene Dibromide	Ethylene Dibromide	100%	6.10E-03	6.10E-03
Fluoranthene	POM	100%	3.18E-04	3.18E-04
Fluorene	POM	100%	1.41E-03	1.41E-03
Formaldehyde	Formaldehyde	100%	6.65E+01	6.65E+01
Hexane	Hexane	100%	1.69E+00	1.69E+00
Indeno(1,2,3-cd)pyrene	POM	100%	9.54E-06	9.54E-06
Methanol	Methanol	100%	3.44E-01	3.44E-01
Methylene Chloride	Methylene Chloride	100%	2.76E-03	2.76E-03
Naphthalene	POM	100%	3.80E-01	3.80E-01
PAH	POM	100%	3.71E-03	3.71E-03
Phenol	Phenol	100%	3.31E-03	3.31E-03
Phenanthrene	POM	100%	2.07E-03	2.07E-03
Propylene Oxide	Propylene Oxide	100%	8.19E+00	8.19E+00
Pyrene	POM	100%	2.94E-04	2.94E-04
Styrene	Styrene	100%	3.25E-03	3.25E-03
Tetrachloroethane	Tetrachloroethane	100%	3.42E-04	3.42E-04
Toluene	Toluene	100%	3.68E+01	3.68E+01
Vinyl Chloride	Vinyl Chloride	100%	2.05E-03	2.05E-03
Xylene	Xylene	100%	1.81E+01	1.81E+01

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Appendix B-19: Hazardous Air Pollutant (HAP) Emissions Summary

HAP	PTE (tpy)
POM	0.39
1,1,2,2-Tetrachloroethane	5.51E-03
1,1,2-Trichloroethane	4.38E-03
1,1-Dichloroethane	3.25E-03
1,2-Dichloroethane	3.25E-03
1,2-Dichloropropane	3.71E-03
1,3 butadiene	0.16
1,3-Dichloropropene	3.64E-03
2,2,4-Trimethylpentane	3.44E-02
Acetaldehyde	12.47
Acrolein	2.52
Benzene	3.47
Biphenyl	0.03
Carbon Tetrachloride	5.06E-03
Chloroethane	2.58E-04
Chlorobenzene	4.19E-03
Chloroform	3.93E-03
Dichlorobenzene	0.001
Ethylbenzene	9.05
Ethylene Dibromide	6.10E-03
Formaldehyde	66.54
Hexane	1.69
Methanol	0.34
Methylene Chloride	2.76E-03
Phenol	3.31E-03
Propylene Oxide	8.19
Styrene	3.25E-03
Tetrachloroethane	3.42E-04
Toluene	36.80
Vinyl Chloride	2.05E-03
Xylene	18.11
Highest Individual	**66.54**
Aggregate	**159.87**

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Appendix B-20: Modeling and Effects Review Applicability (MERA) Analysis

Compound Name	CAS No.	ST ESL (µg/m^3)	LT ESL (µg/m^3)	Ratio of Annual ESL to Short-Term ESL	Emission Increase (lb/hr)	Emission Increase (tpy)	MERA STEP 2		Further Analysis Required?
							Is the LT ESL ≥ 10% of the ST ESL?	Is ST increase within the de minimis levels and LT ESL ≧ 10% ST ESL	
Ethane	74-84-0	Simple Asphyxiant	Simple Asphyxiant	--	4.82E+00	2.57E-01	Yes	No	No
Ethyl Mercaptan	75-08-1	1.00	1.30	130.00%	5.63E-03	3.00E-04	Yes	No	**Yes**
Ethylene Glycol Monobutyl Ether	111-76-2	2900.00	3700.00	127.59%	2.28E+00	1.60E-01	Yes	No	**Yes**
Ethoxylated Alcohols C9-C11	68439-46-3	600.00	60.00	10.00%	4.57E+00	3.20E-01	Yes	No	**Yes**
Hydrogen sulfide	7783-06-4	Must Meet TCEQ Regulatory Standard	Must Meet TCEQ Regulatory Standard	--	4.69E-03	2.50E-04	Yes	Yes	No
Isobutane	75-28-5	23000.00	7100.00	30.87%	3.23E-03	1.72E-04	Yes	Yes	No
n-butane	106-97-8	66000.00	7100.00	10.76%	3.23E-03	1.72E-04	Yes	Yes	No
Propane	74-98-6	Simple Asphyxiant	Simple Asphyxiant	--	8.73E-02	4.66E-03	Yes	Yes	No
Sulfur Hexafluoride	2551-62-4	60000.00	6000.00	10.00%	1.42E-01	6.23E-01	Yes	Yes	No
Nitrous Oxide	10024-97-2	4500.00	450.00	10.00%	5.64E-01	2.82E-02	Yes	No	**Yes**
Lube Oil	72623-86-0	1000.00	100.00	10.00%	6.35E-01	2.78E+00	Yes	No	**Yes**
Diesel	68334-30-5	1000.00	100.00	10.00%	9.32E+00	5.88E-01	Yes	No	**Yes**
Ammonia	7664-41-7	180.00	92.00	51.11%	8.79E+02	1.92E+03	Yes	No	**Yes**

Appendix C
Best Available Control Technology (BACT) Analysis

Best Available Control Technology (BACT) Evaluation

Pacifico GW LLC
GW Ranch Energy Center

Pecos County, Texas

August 2025

11767 Katy Freeway, Suite 850 | Houston, TX 77079 | **t** 713.244.1000

TRCcompanies.com

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Section 1
Introduction

Pacifico GW LLC (Pacifico) is submitting this permit application to authorize the construction of a natural gas-fired simple cycle power plant at a greenfield site in Pecos County, Texas. The new power plant (the Project) will operate under the name GW Ranch Energy Center (GW Ranch). GW Ranch will provide electricity to an on-site hyperscale Artificial Intelligence (AI)-focused data center campus and will not be capable of selling electricity to, or receiving power from, the local utility power distribution system.

The Project will be a major source under the Prevention of Significant Deterioration (PSD) New Source Review (NSR) program found in the Texas State Regulations (30 TAC §116.160). As such, a consolidated permit application is being submitted for the NSR permit, non-GHG PSD permit, and GHG PSD permit. A more detailed description of the Project, as well as supporting calculations and TCEQ permit application forms, are contained in the consolidated application.

TCEQ regulations require new or modified stationary sources to determine and comply with the emission limits reflecting the use of Best Available Control Technology (BACT) for the control of air contaminants emitted from the Project as defined by the applicant. BACT must be evaluated for and applied to all facilities subject to the Texas Clean Air Act (TCAA).

The "top-down" BACT process was used to identify and evaluate all control technologies; eliminating technically infeasible options; evaluating and ranking the feasible controls that results in a selection of BACT, and determining the emission limits reflecting use of the selected BACT. This evaluation considers the following: recently issued/approved permits within the state of Texas, recently issued/approved permits in other states, and control technologies contained within the USEPA's RACT/BACT/LAER Clearinghouse (RBLC) database. This analysis aligns with TCEQ's three-tier approach to BACT, with consideration given to the technical practicability and economic reasonableness of reducing or eliminating the emissions from the facility.

BACT applies to all facilities in the Project. Non-GHG PSD pollutants evaluated include emissions of nitrogen oxides (NO_X), carbon monoxide (CO), particulate matter less than 10 microns (PM_{10}), particulate matter less than 2.5 microns ($PM_{2.5}$), sulfur dioxide (SO_2), and volatile organic compounds (VOC). Additionally, this analysis includes a BACT evaluation for sulfuric acid (H_2SO_4) and ammonia (NH_3), where applicable. For the GHG Permit, BACT was evaluated for GHGs represented as carbon dioxide equivalents (CO_2e).

Section 2
BACT Evaluation Methodology

The top-down BACT process requires that all available and applicable control technologies be ranked in descending order of control effectiveness. A permit applicant is first required to examine the most stringent or "top" alternative. The top alternative is established as BACT unless the applicant demonstrates that technical considerations, energy, environmental, or economic impacts justify a conclusion that the most stringent technology is not "achievable." If the most stringent technology is eliminated, then the next most stringent technology is considered and so on.

The top-down approach follows a 5-step format, as follows:

1. Identification of potential control technologies or techniques
2. Elimination of technologically infeasible options
3. Ranking of the remaining control technologies
4. Evaluation of the remaining control technologies
5. Selection of the control technology that constitutes BACT and then determining the emission limit reflecting the application of that technology to the project at hand

This five-step format was followed in this review; each step is discussed in further detail in the following sections. The minimum control efficiency to be considered in a BACT analysis must result in an emission rate less than or equal to any applicable New Source Performance Standard (NSPS) or National Emission Standard for Hazardous Air Pollutants (NESHAP).

In this BACT analysis, the most effective technically feasible controls were evaluated based on an analysis of their commercial availability, as well as energy, environmental and economic impacts. As part of the analysis, control options for potential emission reductions were identified by: researching the RBLC, TCEQ-published BACT, drawing from previous engineering experience, surveying available literature, and reviewing PSD permits for similar projects and processes.

The BACT evaluation for the NSR and non-GHG PSD pollutants is provided in Sections 3 through 12. The BACT evaluation for the GHG PSD Permit is provided in Section 13.

2.1 BACT Evaluation Summary

A summary of emission units and pollutants included in this analysis is shown in **Table 1-1**.

Table 1-1
Emission Units Requiring a BACT Analysis.

Emission Point Number (EPN)	Emission Unit Description	Pollutants Requiring BACT	Group
CT-1A – CT-21A	Siemens SGT-800 Combustion Turbines (1A through 21A)	NO_X, CO, PM_{10}, $PM_{2.5}$, SO_2, VOC, GHGs, H_2SO_4, and NH_3	Stationary Gas Combustion Turbines
CT-1B – CT-14B	Large-Frame Combustion Turbines (1B through 14B)	NO_X, CO, PM_{10}, $PM_{2.5}$, SO_2, VOC, GHGs, H_2SO_4, and NH_3	Stationary Gas Combustion Turbines
DPHEAT1 – DPHEAT19	Dewpoint Heaters (1 through 19)	NO_X, CO, PM_{10}, $PM_{2.5}$, SO_2, VOC, and GHGs	Dewpoint Heaters
EGEN1 – EGEN15	Emergency Engine Generators (1 through 15)	NO_X, CO, PM_{10}, $PM_{2.5}$, SO_2, VOC, and GHGs	Emergency Engines
FPUMP1 – FPUMP2	Fire Suppression System Pump Engines (1 and 2)	NO_X, CO, PM_{10}, $PM_{2.5}$, SO_2, VOC, and GHGs	Emergency Engines
ENGINE-1 – ENGINE-2	Supplemental Engine Generators (1 and 2)	NO_X, CO, PM_{10}, $PM_{2.5}$, SO_2, VOC, and GHGs	Supplemental Engine Generators
NGFUG	Natural Gas System Piping Fugitives	VOC and GHGs	Natural Gas Piping Fugitives
NH3FUG	SCR Delivery System Ammonia Fugitives	NH_3	Ammonia System Fugitives
CO-1 through CO-19	Wet Surface Air Cooler (WSAC) 1 through 19	PM_{10}, $PM_{2.5}$	Wet Surface Air Cooler
OILVENT1 – OILVENT35	Lube Oil Recirculation Vents (1 through 35)	PM_{10}, $PM_{2.5}$, and VOC	Lube Oil Recirculation Vents
TNK-DSL1 - TNK-DSL7	Ultra-low-sulfur diesel (ULSD) Tanks 1 through 7	VOC	Storage Tanks
MSSFUG	Inherently Low Emitting (ILE) Maintenance Activities	NO_X, CO, PM_{10}, $PM_{2.5}$, VOC, NH_3, H_2S, and GHGs	Maintenance Activities
CRTBRK	Circuit Breaker Insulated Electrical Equipment	GHGs	Circuit Breakers

Section 3
Combustion Turbines

In this section, BACT is addressed for NO_X, CO, PM_{10}, $PM_{2.5}$, SO_2, VOC, H_2SO_4, and NH_3 emissions from gas-fired combustion turbines. The Project will utilize simple cycle combustion turbines to meet the unique power requirements of a multi-gigawatt microgrid purpose built to serve hyperscale AI data centers. AI data centers require 24/7 reliability, high power quality, and responsiveness to dynamic loads. Simple cycle combustion turbines are uniquely well suited to meet these requirements. An environmental benefit of simple cycle combustion turbines is the relatively minimal amount of cooling water required, which will minimize the use of scarce water resources in the Project's geographic location.

A general search of the RBLC database was conducted for natural gas-fired combustion turbines of varying sizes and applications entered into the database in the last 10 years. The results of the RBLC search are included in the permit application Appendix D. The following sections outline the BACT analysis for each applicable pollutant. It is important to note, however, that the control technologies considered in the "top-down" analysis for combustion turbines were not limited to those found in the RBLC database.

3.1 NO_X BACT Analysis for Stationary Gas Combustion Turbines

NOx Formation

NO_X is formed during combustion by the following three mechanisms:

- **Thermal NOx:** Thermal NO_X results from the dissociation of nitrogen (N_2) and oxygen (O_2) molecules in the combustion air at high temperatures. The nitrogen and oxygen atoms recombine to form nitric oxide (NO) and nitrogen dioxide (NO_2). As the combustion temperature increases, thermal NO_X formation increases exponentially. Thermal NOx represents the predominant mechanism for NOx formation during operation of a natural gas-fired gas turbine.
- **Prompt NOx:** Prompt NO_X is formed within the flame by reactions of N_2 molecules in the combustion air and hydrocarbon **radicals** from the fuel. The amount of prompt NO_X formation in a turbine is negligible compared to the amount of thermal NO_X formed.
- **Fuel NOx:** Fuel NO_X results from the reaction of nitrogen-bound compounds in the fuel with O_2 in the combustion air. Fuel NO_X formation is largely independent of combustion temperature. The combustion turbines will combust gas that contains little or no nitrogen-bound compounds.

Identification of Potential Control Technologies

Based on review of RBLC search results and available literature, the following technologies are identified as potentially applicable for controlling NOx emissions from natural gas combustion turbines:

- Selective Non-Catalytic Reduction (SNCR);
- Selective Catalytic Reduction (SCR);
- Dry Low NOx Combustors (DLN);
- Water/Steam Injection;
- EMx (also known as SCONOx)
- Flue Gas Recirculation; and
- Good Combustion Practices.

These methods are discussed in greater detail below.

Selective Non-Catalytic Reduction (SNCR)

SNCR involves chemical reduction of NOx with a reduction agent at elevated temperatures. A nitrogen-based agent, such as ammonia or urea, is injected into the post combustion flue gas stream. The SNCR process chemically reduces NOx to molecular nitrogen and water vapor. SNCR has been shown to achieve NOx reductions in the range of 30 to 50 percent. Because it doesn't include catalysts and a reactor bed, SNCR is better suited for applications with higher levels of particulate in the exhaust gas stream. In general, the ammonia or urea must be injected at a location in the exhaust duct or combustion source where the gas temperature is between 1,550°F and 1,950°F. The temperature must remain in this range for at least one second. Higher NOx reduction efficiencies are attained when the gas temperature is between 1,600°F and 1,800°F and the residence time exceeds one second.

Selective Catalytic Reduction (SCR)

SCR involves chemical reduction of NOx with a reduction agent and a catalyst. The SCR process chemically reduces NOx into molecular nitrogen and water vapor by passing the hot exhaust gases across a catalyst bed. A nitrogen-based agent, such as ammonia or urea, is injected into ductwork downstream of the combustion source. The reagent and combustion exhaust enter a reactor bed containing the catalyst where the reagent reacts selectively with the NOx within a specific temperature range in the presence of the catalyst and oxygen. Typical temperature ranges from 480°F to 850°F where reduction of up to 90 percent can be achieved. The technology is best suited for clean burning fuels as high levels of sulfur and particulate matter can foul or poison the SCR catalyst rendering it ineffective.

Dry Low NOx Combustors (DLN)

Dry Low NOx (DLN) combustors are an inherent design feature to lower NOx emissions. In this combustion control technology, design consideration is given to the arrangement and mixing of combustion air and fuel. The technology uses a reduction in peak combustion temperature, internal recirculation and/or mixing to minimize thermal NOx formation. This technology is primarily used and is most applicable to gaseous fuel; e.g., natural gas, combustion sources.

Water/Steam Injection

Combustion tempering is an external combustion control method that utilizes the injection of water or steam into the combustion zone to reduce the firing temperature. Water or steam injection changes the stoichiometry of the fuel mixture and tempers the flame generated by combustion. Adding water or steam to the combustion zone can suppress NOx formation by up to 25%. There are several significant disadvantages with combustion tempering, including increases in carbon monoxide (CO) and un-burned hydrocarbon emitted as VOC. Additionally, fuel consumption will increase to account for the latent and sensible heat of the water/steam; however, because gas turbine output is based on mass throughput, the potential fuel consumption increase can be offset by turbine electrical output and a decrease in the heat rate.

EMx

The EMx, also known as SCONOx, is a post combustion catalytic NOx reduction technology that utilizes a precious metal catalyst and a NOx absorption/regeneration process for removal of NOx, CO, and VOCs. The operating temperature range of the catalyst is 300°F to 700°F. While EMx can achieve a high level of NOx control, it causes a significant pressure drop in the exhaust system, approximately twice that of other add-on NOx control devices, which decreases power output and overall efficiency, increases fuel consumption, and causes operational and maintenance issues. EMx has only been proven on small gas combustion turbines (less than 50 MW), and in those applications it has suffered from high operating cost and poor reliability. EMx has not proven effective on larger gas combustion turbines.

Flue Gas Recirculation

Flue gas recirculation (FGR) involves recirculating low oxygen flue gas and mixing it with combustion air entering the burner system. FGR reduces NOx formation by increasing the amount of inert gas through the burner. This recirculation reduces oxygen concentration and flame temperature, both of which help lower NOx formation. FGR is typically used for external combustion sources (i.e., boilers) and not for internal combustion machines like a gas turbine.

Good Combustion Practices

Good Combustion Practices include good equipment design, use of natural gas for consistent mixing, and proper combustion techniques such as optimizing the air to fuel ratio.

Elimination of Control Technologies

Selective Non-Catalytic Reduction (SNCR)

SNCR systems operate without a catalyst and therefore require higher flue gas temperatures to initiate a reaction with NOx, which is not feasible for the combustion turbine generators (CTG) in this Project. Specifically, the exhaust temperature associated with the combustion turbines is approximately 850°F, which is below the effective operating range of 1,550°F to 1,950°F. As a result, SNCR is not feasible for this Project.

EMx

This technology has been implemented in small gas-fired combustion turbines ranging from 5 to 43 megawatts (MW) in size. However, EMx has not been proven effective for larger gas combustion turbines like those to be used in the Project. Specifically, the largest combustion turbine project that employed this technology was the 43 MW Alstom GTX-100 at the Redding Electric Utility, installed in 2004 and later replaced with an SCR system. The Siemens SGT-800 turbines are rated at 62.5 MW and the large-frame CGTs nominal capacity ranges from 386 MW to 453 MW, exceed the size range for which EMx technology has proven effective. Additionally, the EMx system has a maximum catalyst inlet temperature of 700°F. The exhaust temperature associated with the CTGs in this Project is approximately 850°F, which is in excess of 700°F. Therefore, this technology is considered infeasible.

Rank Control Technologies

The remaining feasible NOx control technologies for stationary gas combustion turbines are ranked in **Table 1-2**.

Table 1-2
Ranks of Feasible Control Technologies for Stationary Gas Turbines

Rank	Control Technology	Control Effectiveness
1	Selective Catalytic Reduction (SCR)	2.5 ppmvd at 15% O_2
2	Dry Low NOx Combustors (DLN)	9-25 ppmvd at 15% O_2
3	Water/Steam Injection	25 ppmvd at 15% O_2
4	Flue Gas Recirculation	NA
5	Good Combustion Practices	NA

Evaluation of Remaining Control Technologies

Out of all the feasible NO_X control technologies, SCR has the highest NO_X reduction followed by DLN, Water/Steam Injection, FGR, and good combustion practices.

3.1.1 Selection of BACT

For the combustion turbines, the proposed BACT for NO_X is 2.5 parts per million by volume, dry basis (ppmvd) at 15% O_2, on a 3-hour average basis. This is a factor of two below the 5 ppm level identified as presumptive BACT for simple cycle turbines in the TCEQ default BACT spreadsheet included with its Form PI-1. This high level of control will be achieved using an aqueous ammonia-based SCR system in conjunction with DLN combustors, the top ranked and most effective control technologies, and the use of good combustion practices. Based on the search of the RBLC, this proposed limit is equivalent to the lowest BACT emission rate permitted for recent simple cycle projects both inside and outside Texas; therefore, the proposed emission rate satisfies BACT. Compliance with this emissions limit will be demonstrated on a three-hour averaging period basis during steady state operations and excludes periods of maintenance, startup, and shutdown (MSS). This proposed limit is more stringent than the applicable 40 CFR Part 60, NSPS Subpart KKKK for combustion turbines, which has a NOx limit of 15 ppm at 15% O_2. Pacifico will demonstrate that BACT for NOx has been achieved through the initial stack testing and through continuous monitoring of NOx emissions from the CTG stacks.

3.2 CO BACT Analysis for Stationary Gas Turbines

CO Formation

CO is formed due to the incomplete combustion of natural gas fuel in the combustion chamber. CO is produced when there is insufficient residence time and/or mixing at high temperature to complete the final step in hydrocarbon oxidation, the oxidation of CO to CO_2.

Identification of Potential Control Technologies

Based on review of RBLC search results and available literature, the following technologies are identified as potentially applicable for controlling CO emissions from natural gas combustion turbines:

- Oxidation Catalyst; and
- Good Combustion Practices.

These methods are discussed in greater detail below.

Oxidation Catalyst

Oxidation catalyst is a post-combustion technology used to promote more complete oxidation of CO in the turbine exhaust. The addition of a catalyst to the gas turbine exhaust lowers the oxidation reaction energy required to convert CO in the presence of stack gas oxygen to CO_2 and H_2O.

Good Combustion Practices

Good Combustion Practices include good equipment design, use of natural gas for good mixing, and proper combustion techniques such as optimizing the air to fuel ratio. While these control options are typically less efficient than other technologies, they have minimal environmental and energy impacts.

Elimination of Control Technologies

Based on review of RBLC search, both oxidation catalyst and good combustion practices are feasible for CO control from the stationary gas combustion turbines. Therefore, there are no control technologies that can be eliminated for technical reasons.

Rank Control Technologies

No ranking of control technologies is necessary as all technically feasible options are proposed as BACT.

Evaluation of Remaining Control Technologies

All technically feasible control technologies are being proposed as BACT for control of CO emissions from combustion turbines. Therefore, no evaluation of control technologies is required.

3.2.1 Selection of BACT

For the large-frame CTGs, the proposed BACT for CO is 9.0 ppmvd at 15% O_2, on a 3-hour average basis. This is consistent with the TCEQ's current Tier I BACT guidance for CO emissions from gas-fired simple cycle turbines, which specifies a limit of 9 to 25 ppmvd at 15% O_2 for turbines using good combustion practices and/or an oxidation catalyst, and 9.0 ppmvd at 15% O_2 is on the low, more stringent end of the Tier I control level range. This will be achieved using an oxidation catalyst; the top ranked and most effective control technology, and good combustion practices.

For the Siemens Energy SGT-800s, the proposed BACT for CO is 5.0 ppmvd at 15% O_2, on a 3-hour average. This level of CO control can be achieved for the Siemens Energy SGT-800s

without an oxidation catalyst and will be achieved using operating procedures directed at the most efficient levels of operation, i.e., good combustion practices such as controlled fuel/air mixing and sufficient temperature and residence time. Compliance with these emissions limits will be demonstrated on a three-hour average period basis during steady state operations and excludes periods of MSS. Pacifico will demonstrate that BACT for CO has been achieved through the initial stack testing and through continuous monitoring of CO emissions from the CTG stacks.

3.3 $PM_{10}/PM_{2.5}$ BACT Analysis for Stationary Gas Turbines

$PM_{10}/PM_{2.5}$ Formation

Combustion of natural gas in gas turbine generators results in both filterable and condensable particulate matter emissions. Filterable particulate matter is from trace amounts of inert material in the natural gas and any ambient particulates that enter with the turbine air inlet. Condensable particulate emissions are primarily due to the formation of sulfates, nitrates, and possibly organic compounds. The main sources of measured PM emissions are as follows:

- Formation of sulfur trioxide (SO3) from trace sulfur in the fuel;
- Formation of condensable particulate matter from the incomplete combustion of the hydrocarbon constituents of fuel gas;
- Formation of ammonium sulfate or ammonium bisulfate from NH3 in the SCR system and trace sulfur in the fuel; and
- PM in the ambient air that gets past the inlet filtration systems.

Identification of Potential Control Technologies

Based on review of RBLC search results and available literature, the following technologies are identified as potentially applicable for controlling $PM_{10}/PM_{2.5}$ emissions from natural gas combustion turbines:

- Good Combustion Practices;
- Low Sulfur Fuel; and
- Post-Combustion Controls.

These methods are discussed in greater detail below:

Good Combustion Practices

Good Combustion Practices include good equipment design, use of natural gas for good mixing, and proper combustion techniques such as optimizing the air to fuel ratio. Proper maintenance of inlet air filters will minimize the amount of particulate entering the combustion process.

Low Sulfur Fuel

Natural gas fuel has one of the lowest sulfur contents. Low sulfur contents result in lower $PM_{10}/PM_{2.5}$ emissions. Hence the use of low sulfur fuel as pipeline quality natural gas is considered as a control technology.

Post-Combustion Controls

Post-combustion controls such as cyclones, baghouses, and electrostatic precipitators (ESP) can be used to control $PM_{10}/PM_{2.5}$ emissions.

Elimination of Control Technologies

Post-Combustion Controls

Post-combustion controls are eliminated from consideration. The federal New Source Performance Standard found in 40 CFR Part 60, Subpart KKKK, Standards of Performance for Stationary Combustion Turbine regulates emissions from new combustion turbines. In the preamble to that rule promulgated in 2005, USEPA declined to establish emission limits on particulate matter because particulate matter emissions are negligible with natural gas firing due to the low sulfur content of natural gas.

Rank Control Technologies

No ranking of control technologies is necessary as all technically feasible options are proposed as BACT.

Evaluation of Remaining Control Technologies

All technically feasible control technologies are being proposed as BACT for control of $PM_{10}/PM_{2.5}$ emissions from combustion turbines. Therefore, no evaluation of control technologies is required.

3.3.1 Selection of BACT

Pacifico proposes good combustion practices and the use of pipeline quality natural gas as $PM_{10}/PM_{2.5}$ BACT for the gas-fired combustion turbines. The most stringent $PM_{10}/PM_{2.5}$ control method demonstrated for gas turbines is the use of clean burning natural gas. No add-on control technologies are listed in the TCEQ BACT guidelines or EPA RBLC database for natural gas-fired combustion turbines. Therefore, the proposed use of pipeline-quality natural gas, the application of good combustion practices, and compliance with the permit Maximum Allowable Emission Rates (MAER) of 3.25 lb/hr and 11.10 lb/hr for the Siemens SGT-800s and large-frame CTGs, respectively, satisfies BACT for the Project. Pacifico will demonstrate that BACT has been achieved through the initial stack testing for PM_{10} and proper operation of the CTGs.

3.4 SO_2 BACT Analysis for Stationary Gas Turbines

SO_2 Formation

SO_2 is the product of oxidation of sulfur compounds in the fuel.

Identification of Potential Control Technologies

Based on review of RBLC search results and available literature, the following technologies are identified as potentially applicable for controlling SO_2 emissions from natural gas combustion turbines:

- Low Sulfur Fuel;
- Wet Scrubber; and
- Good Combustion Practices.

These methods are discussed in greater detail below:

Low Sulfur Fuel

Natural gas fuel has one of the lowest sulfur contents amongst fuels. Since SO_2 is produced by the oxidation of sulfur compounds in the fuel, burning low sulfur pipeline quality natural gas is the most effective control technology for controlling SO_2 emissions.

Wet Scrubber

Removal of SO_2 by inertial or diffusional impaction, reaction with a sorbent or reagent slurry, or absorption into liquid solvent.

Good Combustion Practices

Good combustion practices include maintaining and operating combustion turbines in accordance with manufacturers' specifications. This will enable the most efficient turbine operation and minimize SO_2 emissions.

Elimination of Control Technologies

Wet Scrubber

The exhaust concentration of SO_2 from combustion of natural gas in a gas turbine is less than one (1) ppm, and it is impractical to get meaningful control of SO_2 in dilute gas streams. In addition, the optimal temperature range for the design of a SO_2 wet scrubbing system is between 40°F and 100°F, which is outside the temperature range of the inlet stream from the combustion turbines to a wet scrubbing system. Therefore, this technology is considered technically infeasible.

Rank Control Technologies

No ranking of control technologies is necessary as all technically feasible options are proposed as BACT.

Evaluation of Remaining Control Technologies

All technically feasible control technologies are being proposed as BACT for control of SO_2 emissions from combustion turbines. Therefore, no evaluation of control technologies is required.

3.4.1 Selection of BACT

Pacifico proposes good combustion practices and the use of pipeline quality natural gas fuel as SO_2 BACT for stationary gas combustion turbines. Consistent with recent turbine permits for which the TCEQ and EPA have determined that firing pipeline quality natural gas is BACT for sulfur compounds, the Project will minimize the formation and emission of SO_2 and other sulfur oxide compounds by using pipeline-quality natural gas. The sulfur content of this natural gas will not exceed 0.5 grains per 100 standard cubic feet (gr/100 scf). This is significantly below the limit of 20 gr/100 scf specified in 40 CFR Part 60 Subpart KKKK 60.4365(a) where monitoring of fuel sulfur is required. Therefore, the proposed use of pipeline-quality natural gas, the application of good combustion practices, and compliance with the permit MAER of 0.74 lb/hr and 5.35 lb/hr for the Siemens SGT-800s and large-frame CTGs, respectively, satisfies BACT for the Project.

Pacifico's proposed use of low sulfur fuel reflects the BACT determination identified previously for combustion turbines and satisfies TCEQ's Tier I BACT requirements. Pacifico will demonstrate that BACT has been achieved for sulfur compounds through the maintenance of records of contractual limits on sulfur content, such as valid purchase contracts, tariff sheets, or transportation contracts showing the sulfur content of the fuel, or through annual fuel sampling of the natural gas, in accordance with 40 CFR Part 60 Subpart KKKK.

3.5 VOC BACT Analysis for Stationary Gas Turbines

VOC Formation

VOCs are formed due to the incomplete combustion of the fuel in the combustion chamber and depend in varying degrees on the extent of fuel mixing, resulting air-to-fuel ratios, combustion temperature, and residence time. The majority of VOCs in the exhaust are due to unburned fuel, although some VOCs are formed as combustion products.

Identification of Potential Control Technologies

Based on review of RBLC search results and available literature, the following technologies are identified as potentially applicable for controlling VOC emissions from natural gas-fired combustion turbines:

- Oxidation Catalyst; and
- Good Combustion Practices.

These methods are discussed in greater detail below.

Oxidation Catalyst

Oxidation catalyst is a post-combustion technology wherein the products of combustion are introduced to a catalytic bed. The catalyst promotes the oxidation of VOC as well as CO, reducing emissions of both.

Good Combustion Practices

Good Combustion Practices include good equipment design, use of natural gas for good mixing, and proper combustion techniques such as optimizing the air to fuel ratio. While these control options are typically less efficient than other technologies, they have minimal environmental and energy impacts.

Elimination of Control Technologies

Based on review of RBLC search, both oxidation catalyst and good combustion practices are feasible for VOC control from the stationary gas combustion turbines. Therefore, there are no control technologies that can be eliminated.

Rank Control Technologies

No ranking of control technologies is necessary as all technically feasible options are proposed as BACT.

Evaluation of Remaining Control Technologies

All technically feasible control technologies are being proposed as BACT for control of VOC emissions from combustion turbines. Therefore, no evaluation of control technologies is required.

3.5.1 Selection of BACT

For the combustion turbines, the proposed BACT for VOC is 2.0 ppmvd at 15% O_2, on a 3-hour average basis. This will be achieved using an oxidation catalyst; the top ranked and most effective control technology, and the use of good combustion practices. A search of the RBLC showed VOC emission limits for natural gas-fired simple cycle CTGs ranging from 1.4 ppmvd at 15% O_2 to 2.5 ppmvd at 15% O_2, with the majority of limits set at 2.0 ppmvd. Good combustion practices and an oxidation catalyst were the controls identified. In addition, TCEQ's current Tier I BACT guidance for VOC emissions from gas-fired simple cycle turbines specifies a limit of 2 ppmvd at 15% O_2.

Compliance with this emissions limit will be demonstrated on a three-hour averaging period basis during steady state operations and excludes periods of MSS. Pacifico will demonstrate that BACT for VOC is achieved through the initial stack testing, with use of an oxidation catalyst, and with the proper operation of the combustion turbine.

3.6 H_2SO_4 BACT Analysis for Stationary Gas Turbines

H_2SO_4 emissions from the combustion turbines occur as a result of oxidation of SO_2 to SO_3 as high temperature exhaust gas passes across the surfaces of the SCR and oxidation catalyst. The SO_3 then hydrates to form H_2SO_4 in the presence of water vapor. Use of clean fuels with low sulfur content and good combustion practices are identified as potentially applicable for controlling H_2SO_4 emissions from stationary gas combustion turbines. Both these control technologies are feasible for the stationary gas combustion turbines.

Pacifico proposes good combustion practices and the use of pipeline quality natural gas fuel as BACT for H_2SO_4 from the stationary gas combustion turbines. Consistent with recent CTG permits, for which the TCEQ and EPA have determined that firing pipeline quality natural gas is BACT for sulfur compounds, the Project will minimize the formation and emission of SO_2 and other sulfur oxide compounds by using pipeline-quality natural gas. The sulfur content of this natural gas will not exceed 0.5 gr/100 scf. Therefore, the proposed use of pipeline-quality natural gas, the application of good combustion practices, and compliance with the permit MAER of 0.11 lb/hr and 0.82 lb/hr for the Siemens SGT-800s and large-frame CTGs, respectively, satisfies BACT for the Project. The use of low sulfur fuel demonstrates BACT as the MAER limits were calculated based on a 10% molar conversion of SO_2 to SO_3^- and subsequent complete conversion of SO_3^- to H_2SO_4 in the SCR.

3.7 NH_3 BACT Analysis for Stationary Gas Turbines

Pacifico will operate the SCR systems to minimize ammonia slip (i.e., the emission of unreacted ammonia to the atmosphere) while ensuring that the NO_X emissions limits are met. The ammonia injection systems and associated operating parameters will be carefully controlled to limit ammonia slip in the exhaust streams of the gas combustion turbines to no more than 10.0 ppmvd at 15% O_2 on a rolling 3-hour average and 5.0 ppmvd at 15% O_2 on an annual average basis. This level of emissions control meets Tier I BACT (7.0 to 10.0 ppmvd at 15% O_2) as outlined in the TCEQ *Combustion Sources – Current Tier I BACT Requirements* spreadsheet for gas-fired, simple-cycle combustion turbines.

Section 4
Dewpoint Heaters

In this section, BACT is addressed for NO_X, CO, PM_{10}, $PM_{2.5}$, SO_2, and VOC emissions from dewpoint heaters. A general review of the RBLC database has been performed for the last 10 years for heaters of varying sizes and applications. The results of the RBLC search are included in Appendix D. The following sections outline the BACT analysis for each applicable pollutant. It is important to note, however, that the control technologies considered in the "top-down" analysis for heaters were not limited to those found in the RBLC database.

4.1 NO_X BACT Analysis for Heaters

NO_X Formation

NO_X emissions from the dewpoint heaters can be formed via three mechanisms (Thermal NO_X, Fuel NO_X, and Prompt NO_X) previously discussed in Section 3.

Identification of Potential Control Technologies

Based on review of RBLC search results and available literature, the following technologies are identified as potentially applicable for controlling NO_X emissions from heaters:

- Selective Non-Catalytic Reduction (SNCR);
- Selective Catalytic Reduction (SCR);
- Low NOx Burners (LNB);
- Ultra Low NOx Burners (ULNB);
- Flue Gas Recirculation and
- Good Combustion Practices.

These methods are discussed in greater detail below:

Selective Non-Catalytic Reduction (SNCR)

SNCR technology is discussed in Section 3.

Selective Catalytic Reduction (SCR)

SCR technology is discussed in Section 3.

Low NOx Burners (LNB)

The fuel and air mixture at the burners is controlled to expand the flame's surface area, which reduces the peak flame temperature and lowers NOx emissions. This approach enhances the overall combustion process and further decreases NOx emissions. Additionally, it improves heat transfer efficiency and flame stability.

Ultra Low NOx Burners (ULNB)

ULNB achieved NOx emission reductions through internal flue gas recirculation and fuel staging. By recirculating flue gas within the burner, peak flame temperatures and average oxygen concentrations are reduced which limits thermal NOx formation. The effectiveness of this process depends on the specific burner type and combustion system design.

Flue Gas Recirculation

Flue gas recirculation technology is discussed in Section 3.

Good Combustion Practices

Good Combustion Practices include good equipment design, use of natural gas for good mixing, and proper combustion techniques such as optimizing the air to fuel ratio. While these control options are typically less efficient than other technologies, they have minimal environmental and energy impacts

Elimination of Control Technologies

Selective Non-Catalytic Reduction (SNCR)

SNCR systems operate without a catalyst and therefore require higher flue gas temperatures to initiate a reaction with NOx. The exhaust temperature associated with heaters is approximately 760°F, which is below the effective operating range of 1,550°F to 1,950°F. As a result, SNCR is not feasible for this Project.

Rank Control Technologies

The remaining feasible NO_x control technologies for heaters are ranked in **Table 1-3**.

Table 1-3
Ranks of Feasible Control Technologies for Heaters

Rank	Control Technology	Control Effectiveness
1	Selective Catalytic Reduction (SCR)	0.01 lb/MMBtu
1	Ultra Low NOx Burners (ULNB)	0.01 lb/MMBtu
2	Low NOx Burners (LNB)	0.04 lb/MMBtu
3	Flue Gas Recirculation (FGR)	NA
4	Good Combustion Practices	NA

Evaluation of Remaining Control Technologies

The SCR and ULNB technology will reduce NO_x emissions to 0.01 lb/MMBtu. ULNB control technology is considered more cost effective compared to SCR technology. LNB technology and FGR are a less stringent control option than ULNB technology. Therefore, these control technologies are not considered further.

4.1.1 Selection of BACT

Based on the equipment vendor emissions guarantee, the proposed BACT for NO_x is 0.011 lb/MMBtu on a 3-hour rolling average, which is equivalent to 9.0 ppmvd. This will be achieved using ULNB, the top ranked and most effective control technology, and the use of good combustion practices. A review of the RBLC for natural gas-fired heaters showed NOx BACT determinations ranging from 0.01 lb/MMBtu to 0.1 lb/MMBtu, and the proposed emissions for the dewpoint heaters fall within the recent RBLC BACT determinations for natural gas-fired heaters.

4.2 CO BACT Analysis for Heaters

CO Formation

CO formation for heaters is similar to combustion turbines and is described in Section 3.

Identification of Potential Control Technologies

Based on review of RBLC search results and available literature, the following technologies are identified as potentially applicable for controlling CO emissions from heaters:

- Oxidation Catalyst; and
- Good Combustion Practices.

These methods are discussed in greater detail below:

Oxidation Catalyst

Oxidation catalyst is a post-combustion technology that is used to oxidize CO in heaters. The addition of a catalyst to the oxidation process accelerates the rate of oxidation by absorbing oxygen from the air stream and CO in the waste stream onto the catalyst surface to react to form CO_2 and H_2O.

Good Combustion Practices

Good Combustion Practices include good equipment design, use of natural gas for good mixing, and proper combustion techniques such as optimizing the air to fuel ratio. While these control options are typically less efficient than other technologies, they have minimal environmental and energy impacts.

Elimination of Control Technologies

Based on review of RBLC search, both oxidation catalyst and good combustion practices are feasible for CO control from the heaters. Therefore, no control technologies are eliminated.

Rank Control Technologies

Although an oxidation catalyst is a feasible emissions control technology for heaters, the Project heaters are small in size (five heaters at 8.8 MMBtu/hr each and fourteen heaters at 11.1 MMBtu/hr each), and a review of the RBLC database indicates good combustion practices and use of pipeline quality natural gas fuel are BACT for heaters in this size range. Therefore, good combustion practices are proposed as BACT for the Project heaters.

Evaluation of Remaining Control Technologies

Good combustion practices are proposed as BACT for control of CO emissions from heaters. Therefore, no evaluation of control technologies is required.

4.2.1 Selection of BACT

Based on the equipment vendor emissions guarantee, the proposed BACT for CO is 50.0 ppmvd at 3% O_2 (0.037 lb/MMBtu), on a 3-hour average. This will be achieved with the use of good combustion practices and natural gas fuel. A review of the RBLC for natural gas-fired heaters sized less than 40 MMBtu/hr showed BACT determinations for CO ranging from 0.037 lb/MMBtu to 0.087 lb/MMBtu, and the proposed emissions for the dewpoint heaters fall within the recent RBLC BACT determinations for natural gas-fired heaters.

4.3 $PM_{10}/PM_{2.5}$ BACT Analysis for Heaters

$PM_{10}/PM_{2.5}$ Formation

$PM_{2.5}/PM_{10}$ formation from natural gas combustion is described in Section 3.

Identification of Potential Control Technologies

Based on review of RBLC search results and available literature, the following technologies are identified as potentially applicable for controlling $PM_{10}/PM_{2.5}$ emissions from heaters:

- Good Combustion Practices;
- Low Sulfur Fuel; and
- Post-Combustion Controls.

These methods are discussed in greater detail below:

Good Combustion Practices

Good Combustion Practices include good equipment design, use of natural gas for good mixing, and proper combustion techniques such as optimizing the air to fuel ratio. Proper maintenance of inlet air filters will minimize the amount of particulate entering the combustion process.

Low Sulfur Fuel

Natural gas fuel has one of the lowest sulfur contents amongst fuels. Low sulfur content results in lower $PM_{10}/PM_{2.5}$ emissions. Hence the use of low sulfur fuel as pipeline quality natural gas is considered as a control technology.

Post-Combustion Controls

Post-combustion controls such as cyclones, baghouses, and ESP can be used to control $PM_{10}/PM_{2.5}$ emissions.

Elimination of Control Technologies

Post-Combustion Controls

Post-combustion controls such as cyclones, baghouses, and ESP are not feasible because of the high exhaust volumetric flow rates and low particulate concentrations.

Rank Control Technologies

No ranking of control technologies is necessary as all technically feasible options are proposed as BACT.

Evaluation of Remaining Control Technologies

All technically feasible control technologies are being proposed as BACT for control of $PM_{10}/PM_{2.5}$ emissions from heaters. Therefore, no evaluation of control technologies is required.

4.3.1 Selection of BACT

For the Project dewpoint heaters, the proposed BACT for $PM_{10}/PM_{2.5}$ is 0.0075 lb/MMBtu, on a 12-month rolling average. This will be achieved with good combustion practices and use of pipeline quality natural gas. A review of the RBLC for natural gas-fired heaters sized less than 40 MMBtu/hr showed BACT determinations ranging from 0.005 lb/MMBtu to 0.01 lb/MMBtu, and the proposed emissions for the dewpoint heaters fall within the recent RBLC BACT determinations for natural gas-fired heaters.

4.4 SO_2 BACT Analysis for Heaters

SO_2 Formation

SO_2 is the product of oxidation of sulfur compounds in the fuel.

Identification of Potential Control Technologies

Based on review of RBLC search results and available literature, the following technologies are identified as potentially applicable for controlling SO_2 emissions from heaters:

- Low Sulfur Fuel and
- Good Combustion Practices.

These methods are discussed in greater detail below:

Low Sulfur Fuel

Natural gas fuel has one of the lowest sulfur contents. Since SO_2 is produced by the oxidation of sulfur compounds in the fuel, burning low sulfur fuel is the most effective control technology for controlling SO_2 emissions.

Good Combustion Practices

Good combustion practices include maintaining and operating heaters in accordance with manufacturers' specifications. This will enable the most efficient heater operation and minimize SO_2 emissions.

Elimination of Control Technologies

Based on review of RBLC search, both low sulfur fuel and good combustion practices are feasible for SO_2 control from the heaters. Therefore, no control technologies are eliminated.

Rank Control Technologies

No ranking of control technologies is necessary as all technically feasible options are proposed as BACT.

Evaluation of Remaining Control Technologies

All technically feasible control technologies are proposed as BACT for control of SO_2 emissions from heaters. Therefore, no evaluation of control technologies is required.

4.4.1 Selection of BACT

Pacifico proposes good combustion practices and the use of pipeline quality natural gas fuel as SO_2 BACT for the dewpoint heaters. The sulfur content of the natural gas will not exceed 0.5 gr/100 scf on a 12-month rolling average basis. The use of low sulfur fuel reflects the BACT determination identified in the RBLC search and satisfies TCEQ's Tier I BACT requirements.

4.5 VOC BACT Analysis for Heaters

VOC Formation

VOC formation is described in Section 3.

Identification of Potential Control Technologies

Based on review of RBLC search results and available literature, the following technologies are identified as potentially applicable for controlling VOC emissions from heaters:

- Oxidation Catalyst; and
- Good Combustion Practices.

These methods are discussed in greater detail below:

Oxidation Catalyst

Oxidation catalyst is a post-combustion technology wherein the products of combustion are introduced to a catalytic bed. The catalyst promotes the oxidation of VOC as well as CO, reducing emissions of both.

Good Combustion Practices

Good Combustion Practices include good equipment design, use of natural gas for good mixing, and proper combustion techniques such as optimizing the air to fuel ratio. While these control options are typically less efficient than other technologies, they have minimal environmental and energy impacts.

Elimination of Control Technologies

Based on review of RBLC search, both oxidation catalyst and good combustion practices are feasible for VOC control from the heaters. Therefore, no control technologies are eliminated.

Rank Control Technologies

Although an oxidation catalyst is a feasible emissions control technology for heaters, the Project heaters are small in size (five heaters at 8.8 MMBtu/hr each and fourteen heaters at 11.1 MMBtu/hr each), and a review of the RBLC database indicates good combustion practices and use of pipeline quality natural gas fuel are BACT for heaters in this size range. Therefore, good combustion practices are proposed as BACT for the Project heaters.

Evaluation of Remaining Control Technologies

Good combustion practices are proposed as BACT for the control of VOC emissions from heaters. Therefore, no evaluation of control technologies is required.

4.5.1 Selection of BACT

For the Project dewpoint heaters, the proposed BACT for VOC is 0.0054 lb/MMBtu on a 3-hour average. This will be achieved with the use of good combustion practices and natural gas fuel. A review of the RBLC for natural gas-fired heaters sized less than 40 MMBtu/hr showed BACT determinations for VOC ranging from 0.005 lb/MMBtu to 0.01 lb/MMBtu, and the proposed emissions for the dewpoint heaters fall within the recent RBLC BACT determinations for natural gas-fired heaters.

Section 5
Emergency Engines and Fire Pumps

In this section, BACT is addressed for NO_X, CO, PM_{10}, $PM_{2.5}$, SO_2, and VOC emissions from the emergency engines and fire suppression system pumps. A general review of the RBLC database has been performed for the last 10 years for engines of varying sizes and applications. The results of the RBLC search are included in Appendix D. The following sections outline the BACT analysis for each applicable pollutant. It is important to note, however, that the control technologies considered in the "top-down" analysis for engines were not limited to those found in the RBLC database.

5.1 NO_X BACT Analysis for Emergency Engines and Fire System Pumps

NO_X Formation

NOx is formed in ultra-low-sulfur diesel (ULSD) engines by the oxidation of atmospheric nitrogen found in the combustion air (thermal NOx) and the conversion of nitrogen chemically bound in the fuel (fuel NOx). Thermal NOx is the dominant NOx formation mechanism in ULSD engines because fuel nitrogen levels are typically low. Formation of thermal NOx is highly dependent on the combustion temperature, with the majority of the thermal NOx formed in the high temperature region of the flame.

Identification of Potential Control Technologies

Based on review of RBLC search results and available literature, the following technologies are identified as potentially applicable for controlling NO_X emissions from engines:

- Selective Non-Catalytic Reduction (SNCR);
- Selective Catalytic Reduction (SCR);
- Use of Clean, Low Sulfur Diesel Fuel;
- Limit Operating Hours and
- Proper Engine Design and Good Combustion Practices.

These methods are discussed in greater detail below:

Selective Non-Catalytic Reduction (SNCR)

SNCR technology is discussed in Section 3.

Selective Catalytic Reduction (SCR)

SCR technology is discussed in Section 3.

Use of Clean, ULSD Fuel

Use of clean, ULSD improves combustion efficiency; thus, reducing NOx emissions.

Limit Operating Hours

Limiting the hours of operation for each emergency engine and fire suppression system pump can lower NOx emissions.

Proper Engine Design and Good Combustion Practices

Good Combustion Practices include good equipment design, proper combustion techniques such as optimizing the air to fuel ratio. While these control options are typically less efficient than other technologies, they have minimal environmental and energy impacts.

Elimination of Control Technologies

Selective Non-Catalytic Reduction (SNCR)

The exhaust temperature associated with the emergency engines and fire suppression system pumps is approximately 825°F and 960°F, respectively, which are below the effective operating range of 1,550°F to 1,950°F. As a result, SNCR is not feasible for this application.

Selective Catalytic Reduction (SCR)

The SCR system requires long periods of operating time in order to reach a minimum temperature before the system can operate efficiently. Moreover, the SCR system operates efficiently under steady state conditions. Since the emergency ULSD generator engines and fire suppression system pumps will operate on standby for a maximum of 100 hours per year and will vary loads based on the demand, the operating conditions are not feasible for efficient operation of the SCR system. Hence, this control technology is deemed technically infeasible.

Rank Control Technologies

No ranking of control technologies is necessary as all technically feasible options are proposed as BACT.

Evaluation of Remaining Control Technologies

All technically feasible control technologies are being proposed as BACT for control of NOx emissions from emergency generators and fire suppression system pumps. Therefore, no evaluation of control technologies is required.

5.1.1 Selection of BACT

Pacifico proposes the use of clean, ULSD, limit operating hours, and proper engine design and good combustion practices as NOx BACT for emergency generators and fire suppression system pumps. Based on the equipment vendor emissions guarantee, the NOx BACT limit for emergency generators is 5.21 g/hp-hr, which is EPA Tier 2 Emissions Certified. The NOx BACT limit for fire suppression system pumps is 2.69 g/hp-hr, which is EPA Tier 3 Emissions Certified. The engines will be limited to 100 hours per year of non-emergency operation.

5.2 CO BACT Analysis for the Emergency Engines and Fire System Pumps

CO Formation

CO is formed by the incomplete combustion of ULSD fuel in the combustion chamber. Its formation is influenced by factors such as fuel-air mixing, air-to-fuel ratio, combustion temperature, and residence time. CO is an intermediate product of hydrocarbon combustion, typically generated in hot, oxygen-deficient regions of the combustion chamber and at the cooler edges of lean flame zones.

Identification of Potential Control Technologies

Based on review of RBLC search results and available literature, the following technologies are identified as potentially applicable for controlling CO emissions from engines:

- Oxidation Catalyst;
- Limit Operating Hours and
- Proper Engine Design and Good Combustion Practices.

These methods are discussed in greater detail below:

Oxidation Catalyst

Oxidation catalyst is a post-combustion technology that is used to oxidize CO. The addition of a catalyst to the oxidation process accelerates the rate of oxidation by absorbing oxygen from the air stream and CO in the waste stream onto the catalyst surface to react to form CO_2 and H_2O.

Limit Operating Hours

Limiting the hours of operation for each emergency engine and fire suppression system pump can lower CO emissions.

Proper Engine Design and Good Combustion Practices

Good Combustion Practices include good equipment design, proper combustion techniques such as optimizing the air to fuel ratio. While these control options are typically less efficient than other technologies, they have minimal environmental and energy impacts.

Elimination of Control Technologies

Oxidation Catalyst

Due to the intermittent use of the emergency engines and fire suppression system pumps, the oxidation catalyst does not have sufficient time to warm up to the effective operating temperature. Therefore, this control technology is deemed infeasible.

Rank Control Technologies

No ranking of control technologies is necessary as all technically feasible options are proposed as BACT.

Evaluation of Remaining Control Technologies

All technically feasible control technologies are being proposed as BACT for control of CO emissions from emergency generators and fire suppression system pumps. Therefore, no evaluation of control technologies is required.

5.2.1 Selection of BACT

Pacifico proposes limiting operating hours and proper engine design and good combustion practices as CO BACT for emergency generators and fire suppression system pumps. Based on the equipment vendor emissions guarantee, the CO BACT limit for emergency generators is 0.58 g/hp-hr, which is EPA Tier 2 Emissions Certified. The CO BACT limit for fire suppression system pumps is 0.40 g/hp-hr, which is EPA Tier 3 Emissions Certified. The engines will be limited to 100 hours per year of non-emergency operation.

5.3 $PM_{10}/PM_{2.5}$ BACT Analysis for Emergency Engines and Fire System Pumps

$PM_{10}/PM_{2.5}$ Formation

Internal combustion engines may emit white, blue, and/or black smoke. White smoke in the exhaust typically represents liquid particulates in the exhaust and often occurs during an engine cold start, idling, or low load operation. Blue smoke typically is generated when lubricating oil leaks into the combustion chamber and is partially combusted. Soot is the primary constituent of black smoke. For these various smoke types, proper maintenance is the most effective prevention method.

Identification of Potential Control Technologies

Based on review of RBLC search results and available literature, the following technologies are identified as potentially applicable for controlling $PM_{10}/PM_{2.5}$ emissions from engines:

- Use of Clean, Low Sulfur Diesel Fuel;
- Limit Operating Hours and
- Proper Engine Design and Good Combustion Practices.

These methods are discussed in greater detail below:

Use of Clean, Low Sulfur Diesel Fuel

Use of clean, ULSD fuel improves the combustion efficiency; thus, reducing $PM_{10}/PM_{2.5}$ emissions.

Limit Operating Hours

Limiting the hours of operation for each emergency engine and fire suppression system pump can lower $PM_{10}/PM_{2.5}$ emissions.

Proper Engine Design and Good Combustion Practices

Good Combustion Practices include proper engine design and good combustion practices, such as optimizing the air to fuel ratio.

Elimination of Control Technologies

Based on review of RBLC search results, use of clean, ULSD, limiting operating hours, and proper engine design and good combustion practices are feasible for $PM_{10}/PM_{2.5}$ control from the emergency engines and fire suppression system pumps. Therefore, no control technologies are eliminated.

Rank Control Technologies

No ranking of control technologies is necessary as all technically feasible options are proposed as BACT.

Evaluation of Remaining Control Technologies

All technically feasible control technologies are being proposed as BACT for control of $PM_{10}/PM_{2.5}$ emissions from emergency generators and fire suppression system pumps. Therefore, no evaluation of control technologies is required.

5.3.1 Selection of BACT

Pacifico proposes the use of clean, ULSD, limit operating hours, and proper operation and good combustion practices as $PM_{10}/PM_{2.5}$ BACT for the emergency generators and fire suppression system pumps. Based on the equipment vendor emissions guarantee, the $PM_{10}/PM_{2.5}$ BACT limit for emergency generators is 0.19 g/hp-hr, which is EPA Tier 2 Emissions Certified. The $PM_{10}/PM_{2.5}$ BACT limit for the fire suppression system pumps is 0.06 g/hp-hr, which is EPA Tier 3 Emissions Certified. The engines will be limited to 100 hours per year of non-emergency operation.

5.4 SO_2 BACT Analysis for the Emergency Engines and Fire System Pumps

SO_2 Formation

Oxidation of sulfur in the fuel is the primary cause of SO_2 emissions from the emergency engines and firewater pumps. During combustion, most of the sulfur is emitted as SO_2. The remaining sulfur is further oxidized into sulfur trioxide and then to sulfuric acid.

Identification of Potential Control Technologies

Based on review of RBLC search results and available literature, the following technologies are identified as potentially applicable for controlling SO_2 emissions from engines:

- Use of Clean, Low Sulfur Diesel Fuel;
- Limit Operating Hours and
- Proper Engine Design and Good Combustion Practices.

These methods are discussed in greater detail below:

Use of Clean, Low Sulfur Diesel Fuel

Use of clean, ULSD improves combustion efficiency; thus, reducing SO_2 emissions. In addition, the sulfur content of the ULSD used to operate the engines will be limited to 15 ppm by weight or less.

Limit Operating Hours

Limiting the hours of operation for each emergency engine and firewater pump can lower SO_2 emissions.

Proper Engine Design and Good Combustion Practices

Good Combustion Practices include good equipment design and proper combustion techniques such as optimizing the air to fuel ratio. While these control options are typically less efficient than other technologies, they have minimal environmental and energy impacts.

Elimination of Control Technologies

Based on review of RBLC search, use of ULSD, limiting operating hours, and proper engine design and good combustion practices are feasible for SO_2 control from emergency engines and firewater pumps. Therefore, no control technologies are eliminated.

Rank Control Technologies

No ranking of control technologies is necessary as all technically feasible options are proposed as BACT.

Evaluation of Remaining Control Technologies

All technically feasible control technologies are being proposed as BACT for control of SO_2 emissions from emergency generators and fire suppression system pumps. Therefore, no evaluation of control technologies is required.

5.4.1 Selection of BACT

Pacifico proposes use of ULSD, limit operating hours, and proper engine design and good combustion practices as SO_2 BACT for emergency generators and fire suppression system pumps. Based on the equipment vendor emissions guarantee, the SO_2 BACT limit for emergency generators is 0.006 g/hp-hr, which is EPA Tier 2 Emissions Certified. The SO2 BACT limit for the fire system pumps is limited to a fuel sulfur content of 15 ppm based on 40 CFR Part 60, Subpart IIII. The engines will be limited to 100 hours per year of non-emergency operation.

5.5 VOC BACT Analysis for the Emergency Engines and Fire System Pumps

VOC Formation

VOCs formation is caused by incomplete combustion of the ULSD fuel in the combustion chamber, and depends, to varying degrees, on the extent of fuel mixing, resulting air-to-fuel ratios, combustion temperature, and residence time.

Identification of Potential Control Technologies

Based on review of RBLC search results and available literature, the following technologies are identified as potentially applicable for controlling VOC emissions from engines:

- Oxidation Catalyst;
- Use of Clean, Low Sulfur Diesel Fuel
- Limit Operating Hours and
- Proper Engine Design and Good Combustion Practices.

These methods are discussed in greater detail below:

Oxidation Catalyst

Oxidation catalyst is a post-combustion technology wherein the products of combustion are introduced to a catalytic bed. The catalyst promotes the oxidation of VOC as well as CO, reducing emissions of both.

Use of Clean, Low Sulfur Diesel Fuel

Use of clean, ULSD improves combustion efficiency; thus, reducing VOC emissions.

Limit Operating Hours

Limiting the hours of operation for each emergency engine and fire suppression system pump can lower VOC emissions.

Proper Engine Design and Good Combustion Practices

Good Combustion Practices include good equipment design and proper combustion techniques such as optimizing the air to fuel ratio. While these control options are typically less efficient than other technologies, they have minimal environmental and energy impacts.

Elimination of Control Technologies

Oxidation Catalyst

Due to the intermittent use of the emergency engines and fire suppression system pumps, the oxidation catalyst does not have sufficient time to warm up to the effective operating temperature. Therefore, this control technology is deemed infeasible.

Rank Control Technologies

No ranking of control technologies is necessary as all technically feasible options are proposed as BACT.

Evaluation of Remaining Control Technologies

All technically feasible control technologies are being proposed as BACT for control of VOC emissions from emergency generators and fire suppression system pumps. Therefore, no evaluation of control technologies is required.

5.5.1 Selection of BACT

Pacifico proposes use of ULSD, limit operating hours, and proper engine design and good combustion practices as VOC BACT for emergency generators and fire suppression system pumps. Based on the equipment vendor emissions guarantee, the VOC BACT limit for emergency generators is 0.30 g/hp-hr, which is EPA Tier 2 Emissions Certified. The VOC BACT limit for the fire suppression system pumps is 0.06 g/hp-hr, which is EPA Tier 3 Emissions Certified. The engines will be limited to 100 hours per year of non-emergency operation.

Section 6
Supplemental Engine Generators

In this section, BACT is addressed for NO_X, CO, PM_{10}, $PM_{2.5}$, SO_2, and VOC emissions from the supplemental engine generators. The supplemental generators are natural gas-fired reciprocating internal combustion engine (RICE) units. A review of the RBLC database has been performed for the last 10 years for RICE units of varying sizes and applications. The results of the RBLC search are included in Appendix D. The following sections outline the BACT analysis for each applicable pollutant. It is important to note, however, that the control technologies considered in the "top-down" analysis for engines were not limited to those found in the RBLC database.

6.1 NO_X BACT Analysis for Supplemental Engine Generators

NO_X Formation

NO_X emissions from the supplemental engine generators can be formed via three mechanisms (Thermal NO_X, Fuel NO_X, and Prompt NO_X) previously discussed in Section 3.

Identification of Potential Control Technologies

Based on review of RBLC search results and available literature, the following technologies are identified as potentially applicable for controlling NO_X emissions from supplemental engine generator:

- Selective Non-Catalytic Reduction (SNCR);
- Selective Catalytic Reduction (SCR);
- Limit Operating Hours and
- Proper Engine Design and Good Combustion Practices.

These methods are discussed in greater detail below:

Selective Non-Catalytic Reduction (SNCR)

SNCR technology is discussed in Section 3.

Selective Catalytic Reduction (SCR)

SCR technology is discussed in Section 3.

Limit Operating Hours

Limiting the hours of operation for each supplemental engine generator can lower NOx emissions.

Proper Engine Design and Good Combustion Practices

Good Combustion Practices include use of natural gas, good equipment design, and proper combustion techniques such as optimizing the air to fuel ratio. While these control options are typically less efficient than other technologies, they have minimal environmental and energy impacts.

Elimination of Control Technologies

Selective Non-Catalytic Reduction (SNCR)

The exhaust temperature associated with the supplemental engine generator is approximately 700°F, which is below the effective operating range of 1,550°F to 1,950°F. As a result, SNCR is not feasible for this Project.

Selective Catalytic Reduction (SCR)

The SCR system requires long periods of operating time in order to reach a minimum temperature before the system can operate efficiently. Moreover, the SCR system operates efficiently under steady state conditions. The supplemental engine generators do not operate continuously for extended periods and will only operate for a maximum of 1,000 hours per year each (less than 12% of the year), to support the combustion turbine startup activities and charging the battery energy storage system (BESS), which is used intermittently to support the variable and ramping nature of the data center load. Due to the intermittent use of the supplemental engine generators, an SCR system is not feasible for this application.

Rank Control Technologies

No ranking of control technologies is necessary as all technically feasible options are proposed as BACT.

Evaluation of Remaining Control Technologies

All technically feasible control technologies are being proposed as BACT for control of NOx emissions from supplemental engine generators. Therefore, no evaluation of control technologies is required.

6.1.1 Selection of BACT

Pacifico proposes the use of natural gas, limited operating hours, proper engine operation and good combustion practices as NOx BACT for the supplemental engine generators. The NOx BACT limit for the supplemental engine generators is 0.70 g/hp-hr on a 3-hour average basis, based on equipment vendor guarantee. The proposed NOx BACT limit is more stringent than the applicable 40 CFR Part 60 NSPS Subpart JJJJ emissions standards for stationary RICE (HP>500), which has a NOx limit of 1.0 g/hp-hr. The RICE units will be limited to 1,000 hours per year of operation.

6.2 CO BACT Analysis for Supplemental Engine Generators

CO Formation

CO formation is described in Section 3.

Identification of Potential Control Technologies

Based on review of RBLC search results and available literature, the following technologies are identified as potentially applicable for controlling CO emissions from the supplemental engine generators:

- Oxidation Catalyst;
- Limit Operating Hours and
- Proper Engine Design and Good Combustion Practices.

These methods are discussed in greater detail below:

Oxidation Catalyst

Oxidation catalyst is a post-combustion technology that is used to oxidize CO. The addition of a catalyst to the oxidation process accelerates the rate of oxidation by absorbing oxygen from the air stream and CO in the waste stream onto the catalyst surface to react to form CO_2 and H_2O.

Limit Operating Hours

Limiting the hours of operation for each supplemental engine generator can lower CO emissions.

Proper Engine Design and Good Combustion Practices

Good Combustion Practices include good equipment design and proper combustion techniques such as optimizing the air to fuel ratio. While these control options are typically less efficient than other technologies, they have minimal environmental and energy impacts.

Elimination of Control Technologies

Oxidation Catalyst

The supplemental engine generators operate intermittently and will only operate for a maximum of 1,000 hours per year, which is less than 12% of the time. Due to the intermittent use of the supplemental engine generators, the oxidation catalyst does not have sufficient time to warm up to the effective operating temperature. Therefore, this control technology is deemed infeasible.

Rank Control Technologies

No ranking of control technologies is necessary as all technically feasible options are proposed as BACT.

Evaluation of Remaining Control Technologies

All technically feasible control technologies are being proposed as BACT for control of CO emissions from the supplemental engine generators. Therefore, no evaluation of control technologies is required.

6.2.1 Selection of BACT

Pacifico proposes limited operating hours, proper engine operation and good combustion practices as CO BACT for the supplemental engine generators. The CO BACT limit for supplemental engine generators is 2.0 g/hp-hr on a 3-hour average basis, which is based on 40 CFR Part 60, Subpart JJJJ § 60.4233 (e) emission standards. The RICE units will be limited to 1,000 hours per year of operation.

6.3 $PM_{10}/PM_{2.5}$ BACT Analysis for Supplemental Engine Generators

$PM_{10}/PM_{2.5}$ Formation

$PM_{2.5}/PM_{10}$ formation is described in Section 3.

Identification of Potential Control Technologies

Based on review of RBLC search results and available literature, the following technologies are identified as potentially applicable for controlling $PM_{10}/PM_{2.5}$ emissions from the supplemental engine generators:

- Use of Clean, Low Sulfur Fuel;
- Post-Combustion Controls;
- Limit Operating Hours and
- Proper Engine Design and Good Combustion Practices.

These methods are discussed in greater detail below:

Use of Clean, Low Sulfur Fuel

Use of clean, low-sulfur fuel improves the combustion efficiency; thus, reducing $PM_{10}/PM_{2.5}$ emissions.

Post-Combustion Controls

Post-combustion controls such as cyclones, baghouses, and ESP can be used to control $PM_{10}/PM_{2.5}$ emissions.

Limit Operating Hours

Limiting the hours of operation for each supplemental engine generator can lower $PM_{10}/PM_{2.5}$ emissions.

Proper Engine Design and Good Combustion Practices

Good Combustion Practices include good equipment design, proper combustion techniques such as optimizing the air to fuel ratio. While these control options are typically less efficient than other technologies, they have minimal environmental and energy impacts.

Elimination of Control Technologies

Post-Combustion Controls

Post-combustion controls such as cyclones, baghouses, and ESP are not feasible because of the high exhaust volumetric flow rates and low particulate concentrations.

Rank Control Technologies

No ranking of control technologies is necessary as all technically feasible options are proposed as BACT.

Evaluation of Remaining Control Technologies

All technically feasible control technologies are proposed as BACT for control of $PM_{10}/PM_{2.5}$ emissions from the supplemental engine generators. Therefore, no evaluation of control technologies is required.

6.3.1 Selection of BACT

Pacifico proposes the use of clean, pipeline quality natural gas, limited operating hours, proper operation and good combustion practices as $PM_{10}/PM_{2.5}$ BACT for the supplemental engine generators. The $PM_{10}/PM_{2.5}$ BACT limit for supplemental engine generators is 0.012 g/hp-hr (0.01 lb/MMBtu) on a 12-month rolling average, based on use of pipeline quality natural gas. A review of the RBLC database for natural gas-fired RICE showed BACT determinations ranging from 0.0075 lb/MMBtu to 0.0194 lb/MMBtu, and the proposed emissions for the RICE fall within the recent RBLC listed BACT determinations. The RICE units will be limited to 1,000 hours per year of operation.

6.4 SO_2 BACT Analysis for Supplemental Engine Generators

SO_2 Formation

Oxidation of sulfur in the fuel is the primary cause of SO_2 emissions from the supplemental engine generators. During combustion, most of the sulfur is emitted as SO_2. The remaining sulfur is further oxidized into sulfur trioxide and then to sulfuric acid.

Identification of Potential Control Technologies

Based on review of RBLC search results and available literature, the following technologies are identified as potentially applicable for controlling SO_2 emissions from supplemental engine generators:

- Use of Clean, Low Sulfur Fuel;
- Limit Operating Hours and
- Proper Engine Design and Good Combustion Practices.

These methods are discussed in greater detail below:

Use of Clean, Low Sulfur Fuel

Use of clean, low-sulfur fuel improves the combustion efficiency; thus, reducing SO_2 emissions.

Limit Operating Hours

Limiting the hours of operation for each supplemental engine generator can lower SO_2 emissions.

Proper Engine Design and Good Combustion Practices

Good Combustion Practices include good equipment design and proper combustion techniques such as optimizing the air to fuel ratio. While these control options are typically less efficient than other technologies, they have minimal environmental and energy impacts.

Elimination of Control Technologies

Based on review of RBLC search, use of clean, low sulfur fuel, limiting operating hours, and proper engine design and good combustion practices are feasible for SO_2 control from the supplemental engine generators. Therefore, no control technologies are eliminated.

Rank Control Technologies

No ranking of control technologies is necessary as all technically feasible options are proposed as BACT.

Evaluation of Remaining Control Technologies

All technically feasible control technologies are proposed as BACT for control of SO_2 emissions from the supplemental engine generators. Therefore, no evaluation of control technologies is required.

6.4.1 Selection of BACT

Pacifico proposes use of low sulfur natural gas, limited operating hours, proper operation and good combustion practices as SO_2 BACT for the supplemental engine generators. The SO_2 BACT limit for supplemental engine generators is 0.0017 g/hp-hr on a 12-month rolling average based on use of pipeline quality natural gas. The RICE units will be limited to 1,000 hours per year of operation.

6.5 VOC BACT Analysis for Supplemental Engine Generators

VOC Formation

VOCs formation is caused by incomplete combustion of the fuel in the combustion chamber, and depends, to varying degrees, on the extent of fuel mixing, resulting air-to-fuel ratios, combustion temperature, and residence time.

Identification of Potential Control Technologies

Based on review of RBLC search results and available literature, the following technologies are identified as potentially applicable for controlling VOC emissions from supplemental engine generators:

- Oxidation Catalyst;
- Use of Clean, Low Sulfur Fuel
- Limit Operating Hours and
- Proper Engine Design and Good Combustion Practices.

These methods are discussed in greater detail below:

Oxidation Catalyst

Oxidation catalyst is a post-combustion technology wherein the products of combustion are introduced to a catalytic bed. The catalyst promotes the oxidation of VOC as well as CO, reducing emissions of both.

Use of Clean, Low Sulfur Fuel

Use of clean, low-sulfur fuel improves the combustion efficiency; thus, reducing VOC emissions.

Limit Operating Hours

Limiting the hours of operation for each supplemental engine generator can lower VOC emissions.

Proper Engine Design and Good Combustion Practices

Good Combustion Practices include good equipment design and proper combustion techniques such as optimizing the air to fuel ratio. While these control options are typically less efficient than other technologies, they have minimal environmental and energy impacts.

Elimination of Control Technologies

Oxidation Catalyst

Due to the intermittent use of the supplemental engine generators, the oxidation catalyst does not have sufficient time to warm up to the effective operating temperature. Therefore, this control technology is deemed infeasible.

Rank Control Technologies

No ranking of control technologies is necessary as all technically feasible options are proposed as BACT.

Evaluation of Remaining Control Technologies

All technically feasible control technologies are being proposed as BACT for control of VOC emissions from the supplemental engine generators. Therefore, no evaluation of control technologies is required.

6.5.1 Selection of BACT

Pacifico proposes using clean, pipeline quality natural gas, limited operating hours, proper operation and good combustion practices as VOC BACT for the supplemental engine generators. The VOC BACT limit for supplemental engine generators is 0.70 g/hp-hr, on a 3-hour average basis, which is based on 40 CFR 60, Subpart JJJJ § 60.4233(e) emission standards. The RICE units will be limited to 1,000 hours per year of operation.

Section 7
Natural Gas Piping Fugitives

In this section, BACT is addressed for VOC emissions from natural gas piping fugitives. A review of the RBLC database has been performed for the last 10 years for VOC fugitives. The results of the RBLC search are included in Appendix D. The following sections outline the BACT analysis for each applicable pollutant. It is important to note, however, that the control technologies considered in the "top-down" analysis for combustion turbines were not limited to those found in the RBLC database.

7.1 VOC BACT Analysis for Fugitives

VOC Formation

Natural gas fuel contains trace amounts of VOC and as such, the Project will emit fugitive VOC emissions that originate from the natural gas metering, compression, and piping components such as valves, pumps, flanges, and connectors. The VOC content from natural gas fuel shows trace quantities of VOCs (less than 1%). VOC fugitive emissions were estimated using EPA's Protocol for Equipment Leak Emission Estimates (453/R-95-017), Table 2-4, Oil and Gas Operation Average Emission Factors. Component counts and average natural gas composition calculated from process flow diagrams and engineering data using a conservative safety factor.

Identification of Potential Control Technologies

Based on review of RBLC search results and available literature, the following technologies are identified as potentially applicable for controlling VOC emissions from fugitives:

- Proper Piping Design and Installation;
- Leak Detection and Repair (LDAR) Program and
- Good Work Practices.

These methods are discussed in greater detail below:

Proper Piping Design and Installation

This control technology assists with ensuring a leak-tight system and can include the following:

- Ensure correct bracing;
- Manual Confirmation that all joints are tight;

- Manual visual verification that all pipes are correctly assembled;
- Ensure proper piping design for adequate/desired pressure, including minimization of buried components;
- Ensure correct seal design/selection.

Leak Detection and Repair (LDAR) Program

An LDAR program is intended to identify and repair equipment leaks. Several types of LDAR programs may be utilized to detect leaks to minimize emissions of VOCs.

Good Work Practices

Good work practices can be developed to minimize leaks at the facility.

Elimination of Control Technologies

No control technologies are eliminated.

Rank Control Technologies

No ranking of control technologies is required because all control technologies are technically feasible.

Evaluation of Remaining Control Technologies

Due to low VOC emissions from the natural gas piping fugitives, it is not economically feasible to incorporate an LDAR program to control fugitive emissions. The TCEQ Piping Fugitives, Current Tier I BACT Requirements spreadsheet states that no control is required if uncontrolled VOC emissions are less than 10 tons per year of VOC emissions. Given the VOC emissions are less than one (1) ton per year, the LDAR program is eliminated from any further consideration.

7.1.1 Selection of BACT

Pacifico proposes to use proper piping design and installation and use of good work practices as BACT to control VOC fugitive emissions from natural gas piping components. The proposed VOC BACT limit is 0.01 tpy on a 12-month rolling average basis. Because the fugitive VOC emissions from the natural gas piping components will be less than 10 tons per year, and in this instance, less than one (1) ton per year, a LDAR program will not result in a significant emission reduction and will not be implemented for BACT purposes.

Section 8
Ammonia Fugitives

To ensure that fugitive emissions from piping components in ammonia service are adequately controlled, Pacifico will implement an Audio, Visual, and Olfactory (AVO) Leak Detection and Repair (LDAR) program for control of NH_3 fugitive emissions. Pressure relief valves will be installed on the ammonia system for safety purposes and will be monitored in accordance with the AVO program. These relief valves are designed to activate only in the event of an overpressure condition.

The ammonia storage tank will be designed to prevent pressure buildup due to solar heating, ensuring that sunlight alone will not cause the tank pressure to reach the relief valve set point. This inspection and maintenance program will comply with the TCEQ's technical guidance for chemical source equipment leak fugitives, and therefore meets or exceeds the requirements for BACT.

8.1 Selection of BACT

Pacifico proposes an AVO LDAR program for control of fugitive ammonia emissions from the piping and valves in NH_3 service. Pacifico will perform daily AVO checks and will maintain records of all AVO inspections and maintenance activities to demonstrate that BACT for fugitive NH_3 emissions is achieved.

Section 9
Wet Surface Air Coolers

In this section, BACT is addressed for PM_{10} and $PM_{2.5}$ emissions from the hybrid wet surface air coolers (WSAC). A review of the RBLC database has been performed for the last 10 years for cooling towers. While cooling towers are the closest approximation in the RBLC database to this Project's WSAC, the WSAC design results in a substantial reduction in both water and energy usage in comparison to traditional cooling tower systems. Specifically, the WSAC system recirculates recycled water and can operate at significantly higher cycles of concentration in comparison to cooling towers, thus reducing the evaporation rate and amount of makeup water. Additionally, the wet surface technology is compact and allows for low power consumption due to its high cooling efficiency. The co-current flow design and direct evaporative cooling maximize heat transfer efficiency, allowing for lower fan and pump power consumption to achieve the same cooling capacity.

The WSAC systems have lower PM_{10} and $PM_{2.5}$ emissions in comparison to cooling towers because the hybrid cooling systems have the ability to operate in dry mode, without water spray and subsequent drift, during the cooler months. The results of the RBLC search are included in Appendix D. The following sections outline the BACT analysis for each applicable pollutant.

9.1 $PM_{10}/PM_{2.5}$ BACT Analysis for Wet Surface Air Coolers

$PM_{10}/PM_{2.5}$ Formation

Particulate matter is formed most commonly from wet or evaporative cooling towers. Typically, warm air passes through the cooling tower and causes the liquid water from the towers to be entrained in the air stream as "drift" droplets. The drift droplets evaporate and produce PM_{10} emissions because of the dissolved solids left behind in the droplets.

Identification of Potential Control Technologies

Based on the RBLC review, drift eliminators are the most common PM control option available for wet or evaporative cooling towers.

Elimination of Control Technologies

There are no control technologies that can be eliminated.

Rank Control Technologies

No ranking of control technologies is required because there is only one technically feasible control technology.

Evaluation of Remaining Control Technologies

All technically feasible control technologies are proposed as BACT for control of $PM_{10}/PM_{2.5}$ emissions from coolers. Therefore, no evaluation of control technologies is required.

9.1.1 Selection of BACT

Pacifico proposes drift eliminators with a drift rate of 0.001-percent as $PM_{10}/PM_{2.5}$ BACT for the WSAC on a 12-month rolling average basis, which is consistent with the TCEQ's current Tier I BACT control level for cooling towers. A review of the RBLC for cooling towers showed $PM_{10}/PM_{2.5}$ BACT determinations ranging from 0.0005-percent to 0.005-percent drift loss, and the proposed drift rate for the WSAC falls within the recent RBLC BACT determinations for cooling towers.

Section 10
Lube Oil Recirculation Vents

In this section, BACT is addressed for PM_{10}, $PM_{2.5}$, and VOC emissions from the lube oil recirculation system vents. The following sections outline the BACT analysis for each applicable pollutant.

10.1 $PM_{10}/PM_{2.5}$ and VOC BACT Analysis for Lube Oil Vents

$PM_{10}/PM_{2.5}$ and VOC Formation

The combustion turbines will be equipped with dedicated closed-loop lube oil recirculation systems to lubricate the moving parts. Lubricating oil will be recirculated through the combustion turbines' machinery from the oil sump, and the heating of recirculating lube oil in the turbine and generator housings will create oil vapor and oil droplets in the oil reservoir compartments.

Identification of Potential Control Technologies

An available control technology to control PM_{10}, $PM_{2.5}$ and VOC emissions from lube oil vents is the use of mist eliminators. Oil mist eliminators work by capturing and removing fine oil droplets from air or gas streams, typically using a series of filters or coalescing elements. As the mist-laden air passes through the eliminator, small oil droplets coalesce into larger ones, which are then collected and drained away.

Elimination of Control Technologies

All identified control technologies discussed above are technically feasible. Therefore, no control technologies are eliminated.

Rank Control Technologies

No ranking of control technologies is necessary as all technically feasible options are being implemented by the Project.

Evaluation of Remaining Control Technologies

All technically feasible control technologies are being proposed as BACT for control of PM_{10}, $PM_{2.5}$ and VOC emissions from lube oil vents. Therefore, no evaluation of control technologies is required.

10.1.1 Selection of BACT

Pacifico proposes to use mist eliminators as BACT to control PM_{10}, $PM_{2.5}$ and VOC emissions from lube oil vents. Compliance with the permit MAER of 0.08 tpy on a 12-month rolling basis, which is the annual limit for PM_{10}, $PM_{2.5}$ and VOC each is proposed as BACT for the lube oil recirculation system vents.

Section 11
Diesel Storage Tanks

In this section, BACT is addressed for VOC emissions from the ULSD storage tanks. A review of the RBLC database has been performed for the last 10 years for storage tanks. The results of the RBLC search are included in Appendix D. The following sections outline the BACT analysis for each applicable pollutant. It is important to note, however, that the control technologies considered in the "top-down" analysis for ULSD storage tanks were not limited to those found in the RBLC database.

11.1 VOC BACT Analysis for Diesel Storage Tanks

VOC Formation

The storage tanks will emit VOCs through the tank pressure relief vents, which allow air to enter and exit the tank to prevent tank failure. Breathing losses occur via natural variations in temperature of the tank contents throughout the day, which are caused by radiant heat from the sun as well as atmospheric temperature changes. Working losses occur when the tank is filled and displaced air is vented.

Identification of Potential Control Technologies

Based on review of RBLC search results and available literature, the following technologies are identified as potentially applicable for controlling VOC emissions from storage tanks:

- Fixed Rook Tanks;
- Submerged Fill Pipes;
- White Paint and
- Good Work Practices.

These methods are discussed in greater detail below:

Fixed Roof Tanks

This type of tank features a cylindrical steel shell with a permanently attached roof, which can be cone-shaped, dome-shaped, or flat in design. Vapor losses from fixed roof tanks occur due to fluctuations in temperature, pressure, and liquid level.

Fixed roof tanks are either freely vented or equipped with a pressure/vacuum relief valve. The latter allows the tank to maintain a slight internal pressure or vacuum, minimizing vapor release during very small changes in temperature, pressure, or liquid level.

Submerged Fill Pipes

The fill pipe extends almost to the bottom of the cargo tank. The fill pipe opening is below the liquid surface level. Liquid turbulence is controlled significantly during submerged loading, resulting in much lower vapor generation than encountered during splash loading.

White Paint

The appropriate condition and color of the tank's shell and roof can significantly reduce evaporative losses. Since temperature drives evaporative losses, reducing the temperature of the stored liquid can reduce evaporative losses. Solar radiation will heat the liquid in a storage tank, but the extent of heating is determined by the color and condition of the paint on the tank walls and roof. Paints with a low solar absorptance (i.e., light colored tanks) will heat up less than dark paint with high solar absorptance. White paint is highly reflective and commonly used to minimize tanks' ambient temperature thus reducing evaporative losses.

Good Work Practices

Good work practices to minimize VOC emissions from the diesel storage tanks include regular inspections and maintenance on the tanks.

Elimination of Control Technologies

All identified control technologies discussed above are technically feasible. Therefore, no control technologies are eliminated.

Rank Control Technologies

No ranking of control technologies is necessary as all technically feasible options are being implemented by the Project.

Evaluation of Remaining Control Technologies

All technically feasible control technologies are being proposed as BACT for control of VOC emissions from storage tanks. Therefore, no evaluation of control technologies is required.

11.1.1 Selection of BACT

Pacifico proposes the use of fixed roof tanks, submerged fill pipes, white paint, and good work practices as VOC BACT for the ULSD storage tanks, which meets TCEQ Tier I BACT for storage tanks with a capacity of less than 25,000 gallons or containing a material with a true vapor pressure of less than 0.5 psia. Diesel fuel has a low vapor pressure, which is less than 0.5 pounds per square inch absolute (psia), and the proposed VOC BACT limit is 0.01 tpy for EPNs TNK-DSL1 through TNK-DSL4, and <0.01 tpy for EPNs TNK-DSL5 through TNK-DSL7. Pacifico proposes that BACT is satisfied for the diesel tanks by meeting the Tier I BACT based on the vapor pressure of diesel and the capacity of the diesel storage tanks. Compliance with the annual VOC limits will be based on a 12-month rolling average period.

Section 12
MSS BACT Analysis

In this section, BACT is addressed for Maintenance Startup and Shutdown (MSS) activity emissions from the Project.

12.1 BACT Analysis for Maintenance Activities

Emissions associated with EPN MSSFUG result from routine maintenance activities conducted to ensure the proper operability and monitoring of equipment. The frequency and duration of the identified maintenance activities will be limited such that the calculated emissions will be low enough to be classified as Inherently Low Emitting (ILE) activities. The emissions associated with these ILE maintenance activities are so low that alternative work practices would not result in meaningful emission reductions. The limited duration and frequency of the identified ILE maintenance activities result in insignificant emissions, which satisfies BACT.

12.2 BACT Analysis for Startup and Shutdown Activities

Startup and Shutdown (SUSD) of the combustion turbines will be part of the planned operations of the Project. During planned SUSD periods, emissions may be released from the combustion turbines at higher rates than during normal operations. Each combustion turbine will be started and shutdown in a manner that minimizes the emissions during these events. BACT will be achieved by minimizing the number of startup and shutdown events and limiting their duration such that a startup or shutdown will not exceed 60 minutes each.

Section 13
Greenhouse Gas (GHG) BACT

In this section, BACT is addressed for CO_2e emissions associated with the GHG PSD Permit application. The following sections outline the BACT analysis for each applicable equipment group or activity.

13.1 GHG BACT Analysis for Stationary Gas Turbines

GHG Formation

GHG emissions from natural gas-fired combustion turbines result from the combustion of natural gas and are directly correlated with the amount of fuel burned.

Identification of Potential Control Technologies

Based on review of RBLC search results and available literature, the following technologies are identified as potentially applicable for controlling GHG emissions from combustion turbines:

- Use of Clean, Low-Carbon Fuels;
- Good Combustion, Operating, and Maintenance Practices and
- Carbon Capture and Sequestration (CCS).

These methods are discussed in greater detail below.

As discussed in Section 3, the Project will utilize simple cycle combustion turbines to meet the unique power requirements of the hyperscale AI data center that demands a highly reliable and responsive power envelope due to the dynamic data center load requirements. Alternative turbine configurations such as combined cycle units are not required to be considered as BACT since that would fundamentally redefine the source by requiring the permit applicant to switch to equipment other than the type of equipment that the applicant proposes to install for its site-specific power generation requirements. As such, the use of combined cycle combustion turbines instead of simple cycle combustion turbines is not a potential control technology option that can be applied to the selected process.

Use of Clean Low-Carbon Fuels

Fuels with a lower carbon-to-energy ratio produce fewer CO_2 emissions per unit of energy output. Among commonly used fossil fuels, natural gas emits less CO_2 for the same energy

output compared to coal or fuel oil and is the lowest carbon content fossil fuel. Alternative fuels for turbines including hydrogen and ammonia are currently under investigation through USDOE grants; however, these fuels are not commercially available and are not considered in this evaluation. The Project is designed to utilize pipeline quality natural gas, which is an effective and practical way to minimize CO_2 emissions from stationary gas combustion turbines.

Good Combustion, Operating, and Maintenance Practices

Good combustion, operating, and maintenance practices are integral to the Project and are identified as control methods for the control of CO_2, CH_4, and N_2O. As the gas combustion turbines are operated, they will inevitably experience performance degradation and efficiency loss over time. To mitigate this, the combustion turbines will be equipped with a high efficiency air filtration system which helps reduce the intake of contaminants that cause compressor fouling, one of the primary causes of efficiency loss. To address the compressor fouling that does occur, the combustion turbines will be equipped with a water wash system to clean the compressors while on- or off-line.

Additionally, the combustion turbines will be maintained under a maintenance program developed and implemented by the turbine manufacturer. These programs are crucial, not only for maintaining operational efficiency, but also for ensuring long-term reliability. Maintenance activities will follow a schedule based on operating hours and/or the number of turbine starts. Typically, the maintenance program includes three levels: combustion inspections, hot gas path inspections, and major overhauls. Combustion inspections are performed most frequently and include combustor tuning to ensure continued low-emissions and high-efficiency operation. Hot gas path inspections and major overhauls occur at longer intervals, as prescribed by the manufacturer, and involve the examination and, if needed, replacement of internal components such as turbine or compressor blades to recover performance losses.

Carbon Capture and Sequestration

Carbon capture and sequestration (CCS) is a set of technologies that can greatly reduce CO_2 emissions from certain fossil-fuel-fired power plants and large industrial sources. CCS is a three-step process that includes capture of CO_2, transport of the captured and compressed CO_2, and underground injection and geologic sequestration of the CO_2 into deep underground rock formations. These formations are often a mile or more beneath the surface and consist of porous rock that holds the CO_2.

Elimination of Control Technologies

Carbon Capture and Sequestration

CCS is a comprehensive set of technologies designed to work together to capture CO_2 emissions from stationary sources, compress and transport the CO_2 to an appropriate site, and then inject it deep underground into geologic formations for safe, secure, and permanent storage. The geologic storage process ensures CO_2 is securely trapped in rock layers, preventing its release into the atmosphere. In some cases, captured CO_2 can also be transported and pumped into oil fields and used in enhanced oil recovery (EOR).

For CCS to be considered technically feasible, each stage (capture and compression, transportation, and storage) must be technically feasible. The integrated suite of components must also be technically feasible in the sense that components have been demonstrated to work together without interfering with the essential operation of the units. Accordingly, any potential barriers to the successful integration of these components must be considered in determining whether CCS is technically feasible.

Post-combustion carbon capture technology typically involves the use of scrubbing exhaust gases with an amine solvent. This technology has not been effectively demonstrated on gas combustion turbines. Because combustion turbines take in additional ambient air for functions other than combustion, such as cooling of turbine compressor blades, the exhaust CO_2 concentrations are low due to the air dilution, making carbon capture by way of amine solvent difficult and less effective. Other technologies for carbon capture are currently under development, including polymeric membranes and combined use of membranes and solvents. However, these technologies are either still under development or are not suitable for combustion turbines due to lower CO_2 concentrations in the exhaust stream.

Some degree of capture of CO_2 in flue gas streams has been demonstrated on coal-fired power plants in North America, including for Boundary Dam in Saskatchewan, Canada, and Petra Nova in Texas; however, both projects experienced significant carbon capture equipment issues and downtime, resulting in both facilities underperforming when compared to their target goals, and neither project has been demonstrated as an economically viable control method for CO_2 emissions. The Petra Nova demonstration project was on a slipstream of exhaust from the generating unit. Issues associated with Petra Nova's CCS facility had a significant impact on the plant reliability. It is reported that the Petra Nova CCS system contributed to over 25% of the plant's 367 outage days during its first three years of operation.

Storage and transport must also be technically and economically viable for CCS to be considered technically feasible as potential BACT. Infrastructure must exist to transport

captured CO_2 to a location with suitable geology to be used for storage. While Texas has a network of CO_2 pipelines, primarily to support EOR, none are in close proximity to the Project. Thus, CCS would require a new pipeline to connect the Project to the existing CO_2 transport pipeline, which would result in higher capital investment.

Due to the challenges with carbon capture technology when applied to gas combustion turbines, CCS is not considered technically feasible for the Project.

Rank Control Technologies

No ranking of control technologies is necessary as all technically feasible options are proposed as BACT.

Evaluation of Remaining Control Technologies

All technically feasible control technologies are being proposed as BACT for control of GHG emissions from combustion turbines. Therefore, no evaluation of control technologies is required.

13.1.1 Selection of BACT

For the combustion turbines, the proposed BACT for GHG is 117 lb CO_2e/MMBtu based on 12-month rolling average. This will be achieved with the use of low-carbon fuel, and the use of good combustion, operating, and maintenance practices. Based on the RBLC search conducted for natural gas-fired simple-cycle projects within the last 10 years, the BACT limits either listed a fuel-based limit of 117 lb CO_2e/MMBtu (or greater); listed a turbine output-based limit in terms of lb CO_2e/MWh; or listed an annual mass emissions limit for CO_2e. Natural gas is the lowest carbon content fossil fuel, and good combustion and operating practices with routine combustion turbine tune-ups are proven to improve the fuel efficiency of the combustion equipment.

The combustion turbine gross or net energy output-based standards (in lb CO_2e/MWh) as specified in 40 CFR Part 60 Subpart TTTTa are applicable to Electric Generating Units (EGUs) that serve as generators capable of selling electricity to a utility power distribution system. This Project will not have electric sales, and the electricity produced will be used solely on-site to power an associated data center campus. The Project will be constructed as fully independent, operating in islanding mode. As such, 40 CFR Part 60 Subpart TTTTa is not applicable to this Project because the Project will not be capable of selling electricity to, or purchasing it from, the local utility power grid.

Furthermore, in the proposed rule dated June 17, 2025, 40 CFR Part 60 – Repeal of Greenhouse Gas Emissions Standards for Fossil Fuel-Fired Electric Generating Units, EPA is proposing to repeal all GHG emissions standards for fossil fuel-fired EGUs. As an alternative, EPA is also reconsidering its technical conclusions regarding specific portions of 40 CFR Part 60, Subpart TTTTa. Specifically, EPA is proposing to repeal CCS-based requirements for new base load combustion turbine EGUs because the EPA is proposing that it has not been adequately demonstrated and the costs are not reasonable. Likewise, EPA is reconsidering the Best System of Emission Reduction (BSER) determinations or standards of performance and related requirements for new base load fossil fuel-fired stationary combustion turbines regarding limited dispatch of simple cycle turbines, and use of combined cycle units. Beyond the proposed rule's regulatory implications, EPA's proposal to repeal the GHG standards explicitly cites broader economic and infrastructure needs and links the potential repeal to supporting the construction of AI data processing centers such as this Project.

13.2 GHG BACT Analysis for Heaters

GHG Formation

GHG emissions from heaters result from the combustion of fuel and are related to the type and amount of fuel burned. The less fuel burned per unit of energy produced, the lower the GHG emissions.

Identification of Potential Control Technologies

Based on review of RBLC search results and available literature, the following technologies are identified as potentially applicable for controlling GHG emissions from heaters:

- Use of Clean Fuels;
- Good Combustion Practices,
- Proper Operating and Maintenance Practices and
- Carbon Capture and Sequestration (CCS).

These methods are discussed in greater detail below:

Use of Clean Fuels

Fuels with a lower carbon-to-energy ratio produce fewer CO_2 emissions per unit of energy output. Among commonly used fossil fuels, natural gas emits less CO_2 for the same energy output. The Project is designed to utilize pipeline-quality natural gas, which is an effective and practical way to reduce CO_2 emissions from heaters.

Good Combustion Practices

Good combustion practices include good equipment design, use of natural gas for good mixing, and proper combustion techniques such as optimizing the air to fuel ratio.

Proper Operating and Maintenance Practices

Implementing good operating and maintenance practices to improve the combustion efficiency of the unit. Increasing combustion efficiency reduces fuel consumption, which results in lower GHG emissions.

Carbon Capture and Sequestration

The carbon capture and sequestration control technology is discussed in Section 13.1.

Elimination of Control Technologies

Carbon Capture and Sequestration

Consistent with the gas-fired combustion turbines GHG BACT analysis in Section 13.1, CCS is also not available for the heaters.

Rank Control Technologies

No ranking of control technologies is necessary as all technically feasible options are proposed as BACT.

Evaluation of Remaining Control Technologies

All technically feasible control technologies are being proposed as BACT for control of GHG emissions from heaters. Therefore, no evaluation of control technologies is required

13.2.1 Selection of BACT

For the Project heaters, the proposed BACT for GHG is 117 lb CO_2e/MMBtu on a 12-month rolling average. This will be achieved with the use of low-carbon fuel, and the use of good combustion, operating, and maintenance practices. Based on the RBLC search conducted for heaters within the last 10 years, the BACT limits either listed a fuel-based limit of 117 lb CO2e/MMBtu (or greater), or listed an annual mass emissions limit for CO_2e. Natural gas is the lowest carbon content fossil fuel, and good combustion and operating practices demonstrate BACT for the dewpoint heaters.

13.3 GHG BACT Analysis for Emergency Engines and Fire System Pumps

GHG Formation

GHG emissions from the emergency generators and fire suppression system pumps result from the combustion of ULSD fuel and are directly correlated with the amount of fuel burned. Therefore, the less fuel burned per unit of energy produced, the lower the GHG emissions.

Identification of Potential Control Technologies

Based on review of RBLC search results and available literature, the following technologies are identified as potentially applicable for controlling GHG emissions from emergency generators and fire suppression system pumps:

- Use of Clean Fuels;
- Good Combustion Practices;
- Proper Operating and Maintenance Practices; and
- Carbon Capture and Sequestration.

These methods are discussed in greater detail below:

Use of Clean, ULSD Fuel

Use of clean, ULSD improves combustion efficiency; thus, reducing GHG emissions.

Good Combustion Practices

Good Combustion Practices include good equipment design, and proper combustion techniques such as optimizing the air to fuel ratio. While these control options are typically less efficient than other technologies, they have minimal environmental and energy impacts.

Proper Operating and Maintenance Practices

Implementing good operating and maintenance practices improves the combustion efficiency of the unit. Increasing combustion efficiency reduces fuel consumption, which results in lower GHG emissions.

Carbon Capture and Sequestration

The carbon capture and sequestration control technology analysis is discussed in Section 13.1.

Elimination of Control Technologies

Carbon Capture and Sequestration

Carbon capture and sequestration is not considered a viable control option for emergency equipment that operates intermittently. This type of equipment must be readily available during plant emergencies without the constraint of waiting to start up the carbon capture and sequestration system.

Rank Control Technologies

No ranking of control technologies is necessary as all technically feasible options are proposed as BACT.

Evaluation of Remaining Control Technologies

All technically feasible control technologies are being proposed as BACT for control of GHG emissions from emergency generators and fire suppression system pumps. Therefore, no evaluation of control technologies is required

13.3.1 Selection of BACT

For the Project emergency generator engines and fire suppression system pumps, the proposed BACT for GHG is 84 tpy and 6 tpy of CO_2e on a 12-month rolling basis, respectively. This will be achieved through the use of good combustion practices and use of proper operating and maintenance practices.

13.4 GHG BACT Analysis for Supplemental Engine Generators

GHG Formation

GHG emissions from the supplemental engine generators result from the combustion of fuel and are directly correlated with the amount of fuel burned. The less fuel burned per unit of energy produced, the lower the GHG emissions.

Identification of Potential Control Technologies

Based on review of RBLC search results and available literature, the following technologies are identified as potentially applicable for controlling GHG emissions from supplemental engine generators:

- Use of Clean Fuels;
- Good Combustion Practices;

- Proper Operating and Maintenance Practices and
- Carbon Capture and Sequestration.

These methods are discussed in greater detail below:

Use of Clean Fuels

Fuels with a lower carbon-to-energy ratio produce fewer CO_2 emissions per unit of energy output. Among commonly used fossil fuels, natural gas emits less CO_2 for the same energy output compared to coal or fuel oil. The Project is designed to utilize pipeline-quality natural gas which is an effective and practical way to reduce CO_2 emissions from supplemental engine generators.

Good Combustion Practices

Good Combustion Practices include good equipment design, and proper combustion techniques such as optimizing the air to fuel ratio. While these control options are typically less efficient than other technologies, they have minimal environmental and energy impacts.

Proper Operating and Maintenance Practices

Implementing good operating and maintenance practices improves the combustion efficiency of the unit. Increasing combustion efficiency reduces fuel consumption, which results in lower GHG emissions.

Carbon Capture and Sequestration

The carbon capture and sequestration control technology is discussed in Section 13.1.

Elimination of Control Technologies

Carbon Capture and Sequestration

Carbon capture and sequestration is not considered a viable control option for equipment that operates intermittently. This type of equipment must be readily available during plant emergencies without the constraint of waiting to start up the carbon capture and sequestration system. Further CCS has never been demonstrated on engines of any kind.

Rank Control Technologies

No ranking of control technologies is necessary as all technically feasible options are proposed as BACT.

Evaluation of Remaining Control Technologies

All technically feasible control technologies are being proposed as BACT for control of GHG emissions from the supplemental engine generators. Therefore, no evaluation of control technologies is required

13.4.1 Selection of BACT

For the Project's supplemental engine generators, the proposed BACT for GHG is 117 lb CO_2e/MMBtu on a 12-month rolling average, which is the lowest fuel-based BACT limit in the RBLC database search, and 3,760 tpy of CO_2e on a 12-month rolling basis. This will be achieved with the use of clean fuels, use of good combustion practices and use of proper operating and maintenance practices.

13.5 GHG BACT Analysis for Natural Gas Fugitives

GHG Formation

The Project will emit fugitive GHG emissions that originate from metering, compression, and piping components such as valves, pumps, flanges, and connectors. GHG fugitive emissions were estimated using EPA's Protocol for Equipment Leak Emission Estimates (453/R-95-017), Table 2-4, Oil and Gas Operation Average Emission Factors. Component counts and average natural gas composition were calculated from process flow diagrams and engineering data using a conservative safety factor.

Identification of Potential Control Technologies

Based on review of RBLC search results and available literature, the following technologies are identified as potentially applicable for controlling GHG emissions from fugitives:

- Proper Piping Design and Installation;
- Leak Detection and Repair (LDAR) Program and
- Good Work Practices.

These methods are discussed in greater detail below:

Proper Piping Design and Installation

This control technology assists with ensuring a leak-tight system and can include the following:

- Ensure correct bracing;
- Manual Confirmation that all joints are tight;

- Manual visual verification that all pipes are correctly assembled;
- Ensure proper piping design for adequate/desired pressure, including minimization of buried components;
- Ensure correct seal design/selection.

Leak Detection and Repair (LDAR) Program

An LDAR program is intended to identify and repair equipment leaks. Several types of LDAR programs may be utilized to detect leaks to minimize emissions of GHGs.

Good Work Practices

Good work practices can be developed to minimize leaks at the facility.

Elimination of Control Technologies

No control technologies are eliminated.

Rank Control Technologies

No ranking of control technologies is required because all control technologies are technically feasible.

Evaluation of Remaining Control Technologies

Due to low GHG emissions from the natural gas piping fugitives, it is not economically feasible to incorporate an LDAR program to control fugitive emissions. As such, the LDAR program is eliminated from any further consideration.

13.5.1 Selection of BACT

Pacifico proposes to use proper piping design and installation and use of good work practices as BACT to control GHG emissions from natural gas piping fugitives. The proposed GHG BACT limit is 726 tpy CO_2e on a 12-month rolling average basis.

13.6 GHG BACT Analysis for Circuit Breakers

GHG Formation

Sulfur Hexafluoride (SF_6) is a potent GHG widely used for electrical insulation in high-voltage equipment. Its exceptional dielectric properties make it valuable for voltage insulation, current

interruption, and arc quenching, making it a critical component for electric utilities. SF_6 emissions primarily result from equipment leaks, which are expected to be minimal. SF_6 is only used in sealed and safe systems, which under normal circumstances do not leak gas. According to the International Electrotechnical Commission Standard 62271-1, the allowable leak rate for new high-voltage equipment is 0.5% per year.

Identification of Potential Control Technologies

An effective control technology for limiting fugitive SF_6 emissions is the use of state-of-the-art circuit breakers with leak detection systems. In comparison to older SF_6 circuit breakers, modern breakers are designed as a fully enclosed-pressure system with far lower potential for SF_6 emissions. The use of state-of-the-art circuit breakers and leak detection to control the release of SF_6 is considered technically feasible and is inherent to the Project. USEPA also recommends the use of new and/or upgraded equipment, which feature tighter seals and reduced leaks, as well as the use of leak detection to ensure any leaks can be repaired immediately.

Elimination of Control Technologies

No control technologies are eliminated.

Rank Control Technologies

No ranking of control technologies is necessary as all technically feasible options are being implemented by the Project.

Evaluation of Remaining Control Technologies

All technically feasible control technologies are being proposed as BACT for control of SF_6 emissions from circuit breakers. Therefore, no evaluation of control technologies is required.

13.6.1 Selection of BACT

Pacifico proposes the use of state-of-the-art enclosed-pressure circuit breakers with leak detection system as GHG BACT. The circuit breakers will be designed to meet the latest American National Standards Institute (ANSI) C37.013 standard for high voltage circuit breakers. The proposed SF_6 circuit breakers will have a low-pressure alarm and a low-pressure lockout. This alarm will function as an early leak detector that will bring potential fugitive SF_6 emissions leaks to the attention of the operations staff before a substantial portion of the SF_6 escapes. The lockout prevents any operation of the breaker due to lack of "quenching and cooling" SF_6 gas.

Section 14
Summary of BACT Analyses

The summary of the selected BACT and associated emission limits are summarized in **Table 1-4** and **Table 1-5**.

Table 1-4
BACT Summary for Gas Combustion Turbines

Emission Point Number (EPN)	Pollutant	BACT Limit	Averaging Time	Control Technology
Combustion Turbines, EPNs: CT-1A – CT-21A and CT-1B – CT-14B	NO_X	2.5 ppmvd at 15% O_2	3-hr average	SCR, DLN combustors, and good combustion practices
	CO	5.0 ppmvd at 15% O_2 for Siemens SGT-800	3-hr average	Good combustion practices and clean natural gas (NG) fuel
		9.0 ppmvd at 15% O_2 for Large-frame CGTs	3-hr average	Oxidation catalyst, good combustion practices, clean NG fuel
	$PM_{10}/PM_{2.5}$	Compliance with MAER[1] 3.25 lb/hr for Siemens SGT-800 11.10 lb/hr Large-frame CGTs	1-hr	Good combustion practices and use of pipeline quality natural gas (low sulfur fuel). Fuel sulfur content limited to 0.5 grains per 100 scf
	SO_2	Compliance with MAER[1] 0.74 lb/hr for Siemens SGT-800 5.35 lb/hr for Large-frame CTGs	1-hr	
	VOC	2.0 ppmvd at 15% O_2	3-hr average	Oxidation catalyst and good combustion practices
	GHG	117 lb CO_2e/MMBtu	12-month rolling average	Use of clean low carbon fuel, good combustion practices, proper operating, and maintenance practices
	H_2SO_4	Compliance with MAER[1] 0.11 lb/hr for Siemens SGT-800 0.82 lb/hr for Large-frame CTGs	1-hr	Use of clean fuels with low sulfur content and good combustion practices. Fuel sulfur content limited to 0.5 grains per 100 scf
	NH_3	10.0 ppmvd at 15% O_2 (3-hr) 5.0 ppmvd at 15% O_2 (Annual)	3-hr average	Controlling the ammonia injection system to minimize ammonia slip

[1] Maximum Allowable Emission Rates (MAER)

Table 1-5
BACT Summary for Ancillary Equipment

Emission Point Number (EPN)	Pollutant	BACT Limit	Averaging Time	Control Technology
Dewpoint Heaters, EPNs: DPHEAT1 – DPHEAT19	NO_X	0.011 lb/MMBtu	3-hr average	ULNB and good combustion practices
	CO	50.0 ppmvd at 3% O_2	3-hr average	Good combustion practices
	$PM_{10}/PM_{2.5}$	0.0075 lb/MMBtu	12-month rolling average	Good combustion practices and use of pipeline quality natural gas (low sulfur fuel).
	SO_2	Fuel sulfur content limited to 0.5 grains per 100 scf	12-month rolling average	
	VOC	0.0054 lb/MMBtu	3-hr average	Good combustion practices
	GHG	117 lb CO_2e/MMBtu	12-month rolling average	Use of clean low carbon fuel, good combustion practices, proper operating, and maintenance practices
Emergency Engines, EPNs: EGEN1 – EGEN15	NO_X	5.21 g/hp-hr	12-month rolling average	Use of clean, ULSD fuel, limit operating hours, and proper engine design and good combustion practices
	CO	0.58 g/hp-hr	12-month rolling average	Limit operating hours, proper engine design, and good combustion practices
	$PM_{10}/PM_{2.5}$	0.19 g/hp-hr	12-month rolling average	Use of clean, ULSD, limit operating hours, and proper engine design and good combustion practices
	SO_2	0.006 g/hp-hr	12-month rolling average	
	VOC	0.30 g/hp-hr	12-month rolling average	
	GHG	Compliance with MAER[1] 84 tpy (each)	12-month rolling average	Use of clean low carbon fuel, good combustion practices, proper operating, and maintenance practices
Emergency Fire System Pump Engines, EPNs: FPUMP1 – FPUMP2	NO_X	2.69 g/hp-hr	12-month rolling average	Use of clean, ULSD, limit operating hours, and proper engine design and good combustion practices
	CO	0.40 g/hp-hr	12-month rolling average	Limit operating hours, proper engine design, and good combustion practices

Emission Point Number (EPN)	Pollutant	BACT Limit	Averaging Time	Control Technology
	$PM_{10}/PM_{2.5}$	0.06 g/hp-hr	12-month rolling average	Use of clean, ULSD, limit operating hours, and proper engine design and good combustion practices
	SO_2	Fuel sulfur content of 15 ppm	12-month rolling average	
	VOC	0.06 g/hp-hr	12-month rolling average	
	GHG	Compliance with MAER[1] 6 tpy (each)	12-month rolling average	Use of clean low carbon fuel, good combustion practices, proper operating, and maintenance practices
Supplemental Engine Generators, EPNs: ENGINE-1 – ENGINE-2	NO_X	0.70 g/hp-hr	3-hr average	Use of natural gas, limit operating hours, proper engine design and good combustion practices
	CO	2.0 g/hp-hr	3-hr average	Limit operating hours and proper engine design and good combustion practices
	$PM_{10}/PM_{2.5}$	0.012 g/hp-hr	12-month rolling average	Use of clean, pipeline quality low sulfur natural gas, limit operating hours, proper engine design and good combustion practices
	SO_2	0.0017 g/hp-hr	12-month rolling average	
	VOC	0.70 g/hp-hr	3-hr average	
	GHG	Compliance with MAER[1] 3,760 tpy (each)	12-month rolling average	Use of clean low carbon fuel, good combustion practices, proper operating, and maintenance practices
Natural Gas Piping System Fugitives, EPN: NGFUG	VOC	Compliance with MAER[1] 0.01 tpy	12-month rolling average	Use proper piping design and installation and use of good work practices
	GHG	Compliance with MAER[1] 726 tpy	12-month rolling average	
Ammonia System Fugitives, EPN: NH3FUG	NH_3	Compliance with MAER[1] 0.07 tpy	12-month rolling average	AVO Leak Detection and Repair (LDAR) program
WSAC, EPNs: CO-1 through CO-19	$PM_{10}/PM_{2.5}$	0.001-percent drift rate	12-month rolling average	Drift eliminators maintained and inspected at least annually.

Emission Point Number (EPN)	Pollutant	BACT Limit	Averaging Time	Control Technology
Lube Oil Recirculation Vents, EPNs: OILVENT1 – OILVENT35	$PM_{10}/PM_{2.5}$	Compliance with MAER[1] 0.08 tpy	12-month rolling average	Mist eliminators
	VOC	Compliance with MAER[1] 0.08 tpy	12-month rolling average	Mist eliminators
USLD Storage Tanks EPNs: TNK-DSL1 - TNK-DSL7	VOC	Compliance with MAER[1] 0.01 tpy for TNK-DSL1 – 4 and <0.01 tpy for TNK-DSL5 – 7	12-month rolling average	Fixed roof tanks with submerged fill pipes, white paint; proper work practices
Insulated Electrical Equipment, EPN: CRTBRK	GHG (SF_6)	Compliance with MAER[1] 0.62 tpy	12-month rolling average	Use of state-of-the-art circuit breakers with leak detection system

[1] Maximum Allowable Emission Rates (MAER)

Appendix D
BACT Supporting Documents

RBLC Entries for Nitrogen Oxides Control from Turbines

Date	Facility Name	RBLC ID	PROCESS NAME	THROUGHPUT	THROUGHPUT UNIT	Control Method	Limit No. 1	Unit	Averaging Period
2/2/2015	INDECK WHARTON ENERGY CENTER	TX-0694	(3) combustion turbines	220	MW	DLN combustors	9	PPMVD	@15% O2, 3-HR ROLLING AVERAGE
5/8/2015	CLEAR SPRINGS ENERGY CENTER (CSEC)	TX-0734	Simple Cycle Turbine	183	MW	dry low-NOx (DLN) burners	9	PPMVD @ 15% O2	3-HR AVERAGE
5/12/2015	ANTELOPE ELK ENERGY CENTER	TX-0733	Simple Cycle Turbine; Generator	202	MW	Dry Low NOx burners	9	PPMVD AT 15% O2	
8/25/2015	LAUDERDALE PLANT	FL-0354	Five 200-MW combustion turbines	2100	MMBtu/hr (approx)	Dry-low-NOx combustion system. Wet injection when firing ULSD.	9	PPMVD@15%O2	24-HR BLOCK AVERAGE
9/10/2015	FORT MYERS PLANT	FL-0355	Combustion Turbines	2262.4	MMBtu/hr gas	DLN and wet injection (for ULSD operation)	9	PPMVD@15% O2	GAS FIRING, 24-HR BLOCK AVG
10/9/2015	SHAWNEE ENERGY CENTER	TX-0768	Simple cycle turbines greater than 25 megawatts (MW)	230	MW	Dry Low NOx burners	9	PPMVD @ 15% O2	
10/14/2015	NACOGDOCHES POWER ELECTRIC GENERATING PLANT	TX-0764	Natural Gas Simple Cycle Turbine (25 MW)	232	MW	Dry Low NOx burners, good combustion practices, limited operations	9	PPMVD @ 15% O2	
10/27/2015	VAN ALSTYNE ENERGY CENTER (VAEC)	TX-0769	Simple Cycle Turbine	183	MW	DLN burners	9	PPMVD @ 15% O2	3-HR AVERAGE
12/9/2015	UNION VALLEY ENERGY CENTER	TX-0777	Simple Cycle Turbine	183	MW	dry low NOX burners	9	PPMVD @ 15% O2	3-HR ROLLING AVERAGE PEAK
3/21/2016	MAGNOLIA LNG FACILITY	LA-0307	Gas Turbines (8 units)	333	mm btu/hr	Dry Low NOX burners and good combustion practices	25	PPMVD	@15 %O2
3/24/2016	NECHES STATION	TX-0788	Large Combustion Turbines; 25 MW	232	MW	Dry low-NOx burners (DLN), good combustion practices	9	PPM	
4/7/2016	HILL COUNTY GENERATING FACILITY	TX-0794	Simple cycle turbine	171	MW	Emission controls consist of dry low-NOx combustors (DLN). DLN combustors use two stages of combustion, transitioning from initial startup with fuel and flame in the primary nozzles only, through a lean lean stage with fuel and flame in the primary and secondary nozzles, to fuel in the secondary stage only, extinguishing the primary flame, and in full operation, premix mode, with fuel to both nozzles, but flame only in the second stage. When natural gas and air are well-mixed before combustion, the flame temperature and resulting NOx emissions are greatly reduced compared to conventional diffusion flame combustion.	9	PPMVD @ 15% O2	3-HR ROLLING AVERAGE
8/26/2016	BAYONNNE ENERGY CENTER	NJ-0086	Simple Cycle Stationary Turbines firing Natural gas	2143980	MMBTU/YR	Selective Catalytic Reduction, water injection, use of natural gas a low NOx emitting fuel	2.5	PPMVD@15%O2	3 H ROLLING AV BASED ON ONE H BLOCK AV
9/7/2016	GREENIDGE STATION	NY-0106	Turbine - natural gas	107	MW	Advanced low NOx burners, closed-coupled and staged over-fire air, Selective Non-Catalytic Reduction, and Selective Catalytic Reduction.	0.03	LB/MMBTU	12 MO
9/27/2016	INVENERGY NELSON EXPANSION LLC	IL-0121	Two Simple Cycle Combustion Turbines	190	MW	Dry low-NOx combustion technology for natural gas and low-NOx combustion technology and water injection for ULSD.	0.033	LB/MMBTU	
10/4/2016	DOSWELL ENERGY CENTER	VA-0326	Two (2) GE 7FA simple cycle combustion turbines	1961	MMBTU/HR	Low NOx Burners/Combustion Technology	9	PPM	VD/12 MO ROLLING TOTAL
10/13/2016	PUENTE POWER	CA-1238	Gas turbine	262	MW		2.5	PPMVD	1 HOUR@15%O2
1/6/2017	MONTPELIER GENERATING STATION	IN-0264	PRATT; TWIN-PAC SIMPLE CYCLE TURBINES	270.9	MMBTU/H	WATER INJECTION	25	PPMV	AT 15% O2 FOR NATURAL GAS
1/23/2017	WAVERLY FACILITY	WV-0026	GE Model 7FA Turbine	1571	mmbtu/hr	Dry Low-NOx Combustion System (DLNB), Water Injection	9	PPM	NATURAL GAS
2/14/2017	CORPUS CHRISTI LIQUEFACTION	TX-0816	Refrigeration compressor turbines	40000	HP	Dry low emission burners	25	PPMDV	@ 15% O2
2/17/2017	CAMERON LNG FACILITY	LA-0316	Gas turbines (9 units)	1069	mm btu/hr	good combustion practices and dry low nox burners	15	PPMVD	@15%O2
2/28/2017	VERMILLION GENERATING STATION	IN-0261	SIMPLE CYCLE, NATURAL GAS FIRED COMBUSTION TURBINES	80	MW	GOOD COMBUSTION PRACTICES	250	LB/H	EACH TURBINE
4/28/2017	GAINES COUNTY POWER PLANT	TX-0819	Simple Cycle Turbine	227.5	MW	Dry Low NOx burners (control), natural gas, good combustion practices, limited operating hours (prevention)	9	PPMV	15% O2 3-H AVG
8/16/2017	MUSTANG STATION	TX-0826	Simple Cycle Turbine	162.8	MW	Dry low-NOx burners	9	PPMVD	
1/26/2018	JACKSON COUNTY GENERATORS	TX-0833	Combustion Turbines	920	MW	Dry low NOx burners	9	PPMVD	
1/26/2018	JACKSON COUNTY GENERATORS	TX-0833	Combustion Turbines MSS	0		Minimizing duration of startup/shutdown, using good air pollution control practices and safe operating practices.	0.01	TON/YR	
3/13/2018	WAVERLY POWER PLANT	WV-0028	GE 7FA.004 Turbine	167.8	MW	Dry LNB	69	LB/HR	
5/23/2018	WASHINGTON PARISH ENERGY CENTER	*LA-0327	CTG01 CO - Simple-Cycle Combustion Turbine 1 (Commissioning) [SCN0005]	2201	MM BTU/hr	Pipeline quality natural gas & dry-low-NOX burners	240	LB/HR	HOURLY MAXIMUM
5/23/2018	WASHINGTON PARISH ENERGY CENTER	*LA-0327	CTG02 CO - Simple-Cycle Combustion Turbine 2 (Commissioning) [SCN0006]	2201	MM BTU/hr	Pipeline quality natural gas & dry-low-NOX burners	240	LB/HR	HOURLY MAXIMUM
5/23/2018	WASHINGTON PARISH ENERGY CENTER	*LA-0327	CTG01 SUSD - Simple-Cycle Combustion Turbine 1 (Startup/Shutdown/ Maintenance/Tuning/Runback) [EQT0019]	2201	MM BTU/hR	Pipeline quality natural gas & dry-low-NOX burners	86.38	LB/HR	HOURLY MAXIMUM
5/23/2018	WASHINGTON PARISH ENERGY CENTER	*LA-0327	CTG02 SUSD - Simple-Cycle Combustion Turbine 2 (Startup/Shutdown/ Maintenance/Tuning/Runback) [EQT0020]	2201	MM BTU/hr	Pipeline quality natural gas & dry-low-NOX burners	86.38	LB/HR	HOURLY MAXIMUM

RBLC Entries for Nitrogen Oxides Control from Turbines

Date	Facility Name	RBLC ID	PROCESS NAME	THROUGHPUT	THROUGHPUT UNIT	Control Method	Limit No. 1	Unit	Averaging Period
5/23/2018	WASHINGTON PARISH ENERGY CENTER	*LA-0327	CTG01 NO - Simple-Cycle Combustion Turbine 1 (Normal Operations) [EQT0017]	2201	MM BTU/hr	Pipeline quality natural gas & dry-low-NOX burners	9	PPMVD @15%O2	30-DAY ROLLING AVERAGE
5/23/2018	WASHINGTON PARISH ENERGY CENTER	*LA-0327	CTG02 NO - Simple-Cycle Combustion Turbine 2 (Normal Operations) [EQT0018]	2201	MM BTU/hr	Pipeline quality natural gas & dry-low-NOX burners	9	PPMVD @15%O2	30-DAY ROLLING AVERAGE
7/10/2018	DRIFTWOOD LNG FACILITY	LA-0349	Compressor Turbines (20)	540	mm btu/hr	DLN and SCR	5	PPMVD	@ 15% O2
9/21/2018	CALCASIEU PASS LNG PROJECT	LA-0331	Simple Cycle Combustion Turbines (SCCT1 to SCCT3)	927	MM BTU/h	Dry Low NOx Combustor Design, Good Combustion Practices, and Natural Gas Combustion.	9	PPMV	30 DAY ROLLING AVERAGE
12/17/2018	RIO BRAVO PIPELINE FACILITY	TX-0851	Refrigeration Compression Turbines	967	MMBTU/HR	Dry Low NOx burners. Good combustion practices	9	PPMVD	15% O2
12/21/2018	LBWL--ERICKSON STATION	MI-0441	EUCTGSC1-A nominally rated 667 MMBTU/hr natural gas-fired simple cycle CTG	667	MMBTU/H	Dry low NOx burners (DLNB) and good combustion practices.	25	PPM	AT 15%O2;4-HR ROLL AVG; SEE NOTES BELOW
9/6/2019	SABINE PASS LNG TERMINAL	LA-0343	gas turbines during startups, shutdowns, and maintenance	0		good combustion practices	96	PPMV	@ 15% O2
8/13/2020	GAS TREATMENT PLANT	AK-0085	Six (6) Simple Cycle Gas-Turbines (Power Generation)	386	MMBtu/hr	DLN combustors and Good Combustion Practices	15	PPMV @ 15% O2	3-HOUR AVERAGE
8/17/2020	ECTOR COUNTY ENERGY CENTER	TX-0900	Simple Cycle Turbines	0		Equipped with dry-low NOx burners with best management practices and good combustion practices. Minimize the duration of startup and shutdown events to less than 60 minutes per event. Limit MSS by 140 lb/hr maximum allowable emission rate for each turbine.	9	PPMVD	3% O2 3 HR AVG
9/3/2020	LAKE CHARLES LNG EXPORT TERMINAL	LA-0383	Turbines (EQT0020 - EQT0031)	0		LNB + SCR	3.1	PPMVD @15%O2	3-HOUR AVERAGE
1/7/2021	LBWL--ERICKSON STATION	MI-0447	EUCTGSC1-natural gas fired simple cycle CTG	667	MMBTU/H	DLNB and good combustion practices.	25	PPM	4-HR ROLL AVG EXCEPT LESS THAN 75% PEAK
9/21/2021	COLBERT COMBUSTION TURBINE PLANT	AL-0329	Three 229 MW Simple Cycle Combustion Turbines	229	MW		9	PPMVD	3 HOUR AVG @ 15% O2
11/17/2021	NACERO PENWELL FACILITY	TX-0933	TURBINE	0		LOW NOX BURNERS AND SCR	9	PPMVD	15% O2
7/7/2022	LIQUEFACTION PLANT	AK-0088	Six Simple Cycle Gas-Fired Turbines	1113	MMBtu/hr	SCR, DLN combustors, and good combustion practices	2	PPMV @ 15% O2	3-HOURS
8/31/2022	TENNESSEE VALLEY AUTHORITY - JOHNSONVILLE COMBUSTION TURBINE	*TN-0187	Ten Simple Cycle NG Turbines	465.8	MMBtu/hr	dry low-NOx burners selective catalytic reduction	5	PPMVD @ 15% O2	4-HOUR ROLLING AVERAGE EXCLUDING STA/SHU
12/20/2022	LBWL-ERICKSON STATION	MI-0454	EUCTGSC1--A nominally rated 667 MMBTU/H natural gas-fired simple cycle CTG	667	MMBTU/H	DLNB and good combustion practices.	25	PPM	4-HR ROLLING AVG EXCEPT <75% PEAK LOAD
3/28/2023	COMMONWEALTH LNG FACILITY	LA-0324	Refrigeration Turbines and Generator Turbines (EQT0001 - EQT0006 and EQT0013 - EQT0015)	575	mm btu/hr	Good combustion practices and use clean fuel. Dry low-NOx and selective catalytic reduction.	2.5	PPMVD	@15% O2
6/13/2024	FREESTONE PEAKERS PLANT	TX-0975	Simple Cycle Gas Turbines	221	MW	Dry low-NOx burners (DLNB) and good combustion practices.	9	PPMVD	15% O2
12/27/2024	JACK COUNTY GENERATION FACILITY	TX-0986	COMBUSTION TURBINES	180.2	MW	Each turbine is limited to 15 ppmvd concentration at 15% O2 on a 3-hour average through an upgrade to â€¯HR3â Dry Low-NOx (DLN) burners. 14 ppmvd at 15% O2 is achieved on an annual average and also includes during periods when wet compression (evaporative air cooling) is applied. MSS - Limited to 50 startups and 50 shutdowns per year for each turbine. Startup and shutdown events are each expected to last less than an hour in duration.	15	PPMVD	15% O2
3/17/2025	LONE STAR POWER STATION	*TX-0989	Simple Cycle Gas Turbines	0		Dry-low NOx (DLN) combustors and an aqueous ammonia-based SCR system	2.5	PPMVD	15% O2 1-HR
3/31/2025	SYCAMORE RIVERSIDE ENERGY LLC	IN-0384	Four GE 7FA.05 simple cycle combustion turbines	240	MW Each	dry low-NOx combustors, water injection when using ULSD, good combustion practices, clean fuels	9	PPMVD	@ 15% O2 (NG) STEADY STATE OPERATIONS

RBLC Entries for Carbon Monoxide Control from Turbines

Date	Facility Name	RBLC ID	PROCESS NAME	THROUGHPUT	THROUGHPUT UNIT	Control Method	Limit No. 1	Unit	Averaging Period
2/2/2015	INDECK WHARTON ENERGY CENTER	TX-0694	(3) combustion turbines	220	MW	DLN combustors	4	PPMVD	@15% O2, 3-HR ROLLING AVG - SIEMENS
5/8/2015	CLEAR SPRINGS ENERGY CENTER (CSEC)	TX-0734	Simple Cycle Turbine	183	MW	DLN burners and good combustion practices	9	PPMVD @ 15% O2	ALL LOADS
5/12/2015	ANTELOPE ELK ENERGY CENTER	TX-0733	Simple Cycle Turbine; Generator	202	MW	Good combustion practices; limited operating hours	9	PPMVD @ 15% O2	3-HR AVERAGE
8/25/2015	LAUDERDALE PLANT	FL-0354	Five 200-MW combustion turbines	2100	MMBtu/hr (approx)	Good combustion minimizes CO formation	4	PPMVD@15%O2	NAT GAS, THREE 1-HR RUNS
10/9/2015	SHAWNEE ENERGY CENTER	TX-0768	Simple cycle turbines greater than 25 megawatts (MW)	230	MW	dry low NOx burners and limited operation, clean fuel	9	PPMVD @ 15% O2	
10/14/2015	NACOGDOCHES POWER ELECTRIC GENERATING PLANT	TX-0764	Natural Gas Simple Cycle Turbine (25 MW)	232	MW	dry low NOx burners, good combustion practices, limited operation	9	PPMVD @ 15% O2	
10/27/2015	VAN ALSTYNE ENERGY CENTER (VAEC)	TX-0769	Simple Cycle Turbine	183	MW	DLN burners and good combustion practices	9	PPMVD @ 15% O2	
12/9/2015	UNION VALLEY ENERGY CENTER	TX-0777	Simple Cycle Turbine	183	MW	dry low NOx burners and good combustion practices	9	PPMVD @ 15% O2	ALL LOADS
3/21/2016	MAGNOLIA LNG FACILITY	LA-0307	Gas Turbines (8 units)	333	mm btu/hr	good combustion practices and fueled by natural gas	0.062	LB/MM BTU	THREE ONE-HOUR TEST AVERAGE
3/24/2016	NECHES STATION	TX-0788	Large Combustion Turbines; 25 MW	232	MW	good combustion practices	9	PPM	
4/7/2016	HILL COUNTY GENERATING FACILITY	TX-0794	Simple cycle turbine	171	MW	Premixing of fuel and air enhances combustion efficiency and minimizes emissions.	9	PPMVD @ 15% O2	3-HR AVERAGE
8/26/2016	BAYONNNE ENERGY CENTER	NJ-0086	Simple Cycle Stationary Turbines firing Natural gas	2143980	MMBTU/YR	Add-on control is CO Oxidation Catalyst, and use of natural gas as fuel for pollution prevention	5	PPMVD@15%O2	3 H ROLLING AV BASED ON ONE H BLOCK AV
9/7/2016	GREENIDGE STATION	NY-0106	Turbine - natural gas	107	MW		0.095	LB/MMBTU	12 MO
10/4/2016	DOSWELL ENERGY CENTER	VA-0326	Two (2) GE 7FA simple cycle combustion turbines	1961	MMBTU/HR	Pipeline Quality Natural Gas	13.99	LB	H/12 MO ROLLING TOTAL
1/6/2017	MONTPELIER GENERATING STATION	IN-0264	PRATT; TWIN-PAC SIMPLE CYCLE TURBINES	270.9	MMBTU/H	NATURAL GAS AS PRIMARY FUEL; GOOD COMBUSTION PRACTICES	0.2	LB/MMBTU	NATURAL GAS
1/23/2017	WAVERLY FACILITY	WV-0026	GE Model 7FA Turbine	1571	mmbtu/hr	Good Combustion Practices	9	PPM	NATURAL GAS
2/14/2017	CORPUS CHRISTI LIQUEFACTION	TX-0816	Refrigeration compressor turbines	40000	HP	Dry low emission burners	29	PPMDV	@ 15% O2
2/17/2017	CAMERON LNG FACILITY	LA-0316	Gas turbines (9 units)	1069	mm btu/hr	good combustion practices and fueled by natural gas	15	PPMVD	@15%O2
2/28/2017	VERMILLION GENERATING STATION	IN-0261	SIMPLE CYCLE, NATURAL GAS FIRED COMBUSTION TURBINES	80	MW	GOOD COMBUSTION PRACTICES	525	LB/H	EACH TURBINE
4/28/2017	GAINES COUNTY POWER PLANT	TX-0819	Simple Cycle Turbine	227.5	MW	Good combustion practices; limited operating hours	9	PPMVD	3% O2 3-H AVG
1/26/2018	JACKSON COUNTY GENERATORS	TX-0833	Combustion Turbines	920	MW	Dry low NOx burners	9	PPMVD	
1/26/2018	JACKSON COUNTY GENERATORS	TX-0833	Combustion Turbines MSS	0		Minimizing duration of startup/shutdown, using good air pollution control practices and safe operating practices.	0.01	TON/YR	
3/13/2018	WAVERLY POWER PLANT	WV-0028	GE 7FA.004 Turbine	167.8	MW	Combustion Controls	33.9	LB/HR	
5/23/2018	WASHINGTON PARISH ENERGY CENTER	*LA-0327	CTG01 CO - Simple-Cycle Combustion Turbine 1 (Commissioning) [SCN0005]	2201	MM BTU/hr	Good combustion practices & use of pipeline quality natural gas	2000	LB/HR	HOURLY MAXIMUM
5/23/2018	WASHINGTON PARISH ENERGY CENTER	*LA-0327	CTG02 CO - Simple-Cycle Combustion Turbine 2 (Commissioning) [SCN0006]	2201	MM BTU/hr	Good combustion practices & use of pipeline quality natural gas	2000	LB/HR	HOURLY MAXIMUM
5/23/2018	WASHINGTON PARISH ENERGY CENTER	*LA-0327	CTG01 SUSD - Simple-Cycle Combustion Turbine 1 (Startup/Shutdown/ Maintenance/Tuning/Runback) [EQT0019]	2201	MM BTU/hR	Good combustion practices & use of pipeline quality natural gas	800.08	LB/HR	HOURLY MAXIMUM
5/23/2018	WASHINGTON PARISH ENERGY CENTER	*LA-0327	CTG02 SUSD - Simple-Cycle Combustion Turbine 2 (Startup/Shutdown/ Maintenance/Tuning/Runback) [EQT0020]	2201	MM BTU/hr	Good combustion practices & use of pipeline quality natural gas	800.08	LB/HR	HOURLY MAXIMUM
5/23/2018	WASHINGTON PARISH ENERGY CENTER	*LA-0327	CTG01 NO - Simple-Cycle Combustion Turbine 1 (Normal Operations) [EQT0017]	2201	MM BTU/hr	Good combustion practices & use of pipeline quality natural gas	6	PPMVD AT 15% OXYGEN	ANNUAL AVERAGE
5/23/2018	WASHINGTON PARISH ENERGY CENTER	*LA-0327	CTG02 NO - Simple-Cycle Combustion Turbine 2 (Normal Operations) [EQT0018]	2201	MM BTU/hr	Good combustion practices & use of pipeline quality natural gas	6	PPMVD AT 15% O2	ANNUAL AVERAGE
7/10/2018	DRIFTWOOD LNG FACILITY	LA-0349	Compressor Turbines (20)	540	mm btu/hr	Good Combustion Practices	25	PPMVD	@ 15% O2
9/21/2018	CALCASIEU PASS LNG PROJECT	LA-0331	Simple Cycle Combustion Turbines (SCCT1 to SCCT3)	927	MM BTU/h	Proper Equipment Design, Proper Operation, and Good Combustion Practices.	25	PPMV	30 DAY ROLLING AVERAGE
12/17/2018	RIO BRAVO PIPELINE FACILITY	TX-0851	Refrigeration Compression Turbines	967	MMBTU/HR	Dry Low NOx burners. Good combustion practices	25	PPMVD	15% O2
12/21/2018	LBWL--ERICKSON STATION	MI-0441	EUCTGSC1-A nominally rated 667 MMBTU/hr natural gas-fired simple cycle CTG	667	MMBTU/H	Dry low NOx burners and good combustion practices.	9	LB/H	HOURLY EXCEPT DURING STARTUP/SHUTDOWN
8/13/2020	GAS TREATMENT PLANT	AK-0085	Six (6) Simple Cycle Gas-Turbines (Power Generation)	386	MMBtu/hr	Good Combustion Practices and burning clean fuels (NG)	15	PPMV @ 15% O2	3-HOUR AVERAGE
9/3/2020	LAKE CHARLES LNG EXPORT TERMINAL	LA-0383	Turbines (EQT0020 - EQT0031)	0		catalytic oxidation and carbon monoxide turndown	10	PPMVD @15%O2	3-HOUR AVERAGE, @ LOAD =>50%
1/7/2021	LBWL--ERICKSON STATION	MI-0447	EUCTGSC1-natural gas fired simple cycle CTG	667	MMBTU/H	Dry low NOx burners and good combustion practices	9	LB/H	HOURLY; EXCEPT DURING STARTUP/SHUTDOWN
9/21/2021	COLBERT COMBUSTION TURBINE PLANT	AL-0329	Three 229 MW Simple Cycle Combustion Turbines	229	MW		9	PPMVD	3 HOUR AVG / @15% O2
11/17/2021	NACERO PENWELL FACILITY	TX-0933	TURBINE	0		Oxidization catalyst, good combustion practices and the use of gaseous fuel	9	PPMVD	15% O2
7/7/2022	LIQUEFACTION PLANT	AK-0088	Six Simple Cycle Gas-Fired Turbines	1113	MMBtu/hr	Oxidation Catalyst and good combustion practices	5	PPMV @ 15% O2	3-HOURS
8/31/2022	TENNESSEE VALLEY AUTHORITY - JOHNSONVILLE COMBUSTION TURBINE	*TN-0187	Ten Simple Cycle NG Turbines	465.8	MMBtu/hr	oxidation catalyst	5	PPMVD @ 15% O2	4-HOUR ROLLING AVERAGE EXCLUDING STA/SHU
12/20/2022	LBWL-ERICKSON STATION	MI-0454	EUCTGSC1--A nominally rated 667 MMBTU/H natural gas-fired simple cycle CTG	667	MMBTU/H	Dry low NOx burners and good combustion practices.	9	LB/H	HOURLY EXCEPT DURING SU/SD
3/28/2023	COMMONWEALTH LNG FACILITY	LA-0324	Refrigeration Turbines and Generator Turbines (EQT0001 - EQT0006 and EQT0013 - EQT0015)	575	mm btu/hr	Good combustion practices and use of clean fuel.	1.7	PPMVD	@15% O2
6/13/2024	FREESTONE PEAKERS PLANT	TX-0975	Simple Cycle Gas Turbines	221	MW	Good combustion practices	9	PPMVD	15% O2

RBLC Entries for Carbon Monoxide Control from Turbines

Date	Facility Name	RBLC ID	PROCESS NAME	THROUGHPUT	THROUGHPUT UNIT	Control Method	Limit No. 1	Unit	Averaging Period
12/27/2024	JACK COUNTY GENERATION FACILITY	TX-0986	COMBUSTION TURBINES	180.2	MW	Each turbine is limited to 9 ppmvd at 15% O2 on a 3-hour average, which meets Tier I BACT. Good combustion practices are used. MSS - Limited to 50 startups and 50 shutdowns per year for each turbine. Startup and shutdown events are each expected to last less than an hour in duration.	9	PPMVD	15% O2, 3-HR AVG
3/31/2025	SYCAMORE RIVERSIDE ENERGY LLC	IN-0384	Four GE 7FA.05 simple cycle combustion turbines	240	MW Each		9	PPMVD	@ 15% O2 (NG) STEADY STATE OPERATIONS

RBLC Entries for PM_{10} Control from Turbines

Date	Facility Name	RBLC ID	PROCESS NAME	THROUGHPUT	THROUGHPUT UNIT	Control Method	Limit No. 1	Unit	Averaging Period
5/12/2015	ANTELOPE ELK ENERGY CENTER	TX-0733	Simple Cycle Turbine; Generator	202	MW	Pipeline quality natural gas; limited hours; good combustion practices.	0		
5/12/2015	ANTELOPE ELK ENERGY CENTER	TX-0733	Simple Cycle Turbine; Generator	202	MW	Pipeline quality natural gas; limited hours; good combustion practices.	0		
8/25/2015	LAUDERDALE PLANT	FL-0354	Five 200-MW combustion turbines	2100	MMBtu/hr (approx)	Clean fuel prevents PM formation	2	GR. S / 100 SCF GAS	FUEL RECORD KEEPING
8/25/2015	LAUDERDALE PLANT	FL-0354	Five 200-MW combustion turbines	2100	MMBtu/hr (approx)	Clean fuel prevents PM formation	2	GR. S / 100 SCF	FUEL RECORD KEEPING
9/10/2015	FORT MYERS PLANT	FL-0355	Combustion Turbines	2262.4	MMBtu/hr gas	Use of clean fuels, and annual VE test	2	GR S / 100 SCF GAS	FOR NATURAL GAS
9/10/2015	FORT MYERS PLANT	FL-0355	Combustion Turbines	2262.4	MMBtu/hr gas	Use of clean fuels	2	GR S / 100 SCF GAS	FOR NATURAL GAS
10/9/2015	SHAWNEE ENERGY CENTER	TX-0768	Simple cycle turbines greater than 25 megawatts (MW)	230	MW	Pipeline quality natural gas; limited hours; good combustion practices.	84.1	LB/HR	
10/14/2015	NACOGDOCHES POWER ELECTRIC GENERATING PLANT	TX-0764	Natural Gas Simple Cycle Turbine (25 MW)	232	MW	Pipeline quality natural gas; limited hours; good combustion practices.	12.09	LB/HR	
10/14/2015	NACOGDOCHES POWER ELECTRIC GENERATING PLANT	TX-0764	Natural Gas Simple Cycle Turbine (25 MW)	232	MW	Pipeline quality natural gas; limited hours; good combustion practices.	12.09	LB/HR	
10/27/2015	VAN ALSTYNE ENERGY CENTER (VAEC)	TX-0769	Simple Cycle Turbine	183	MW	Pipeline Quality Natural Gas	8.6	LB/H	
12/9/2015	UNION VALLEY ENERGY CENTER	TX-0777	Simple Cycle Turbine	183	MW	pipeline quality natural gas, good combustion practices	8.6	LB/H	
3/21/2016	MAGNOLIA LNG FACILITY	LA-0307	Gas Turbines (8 units)	333	mm btu/hr	good combustion practices and fueled by natural gas	0		
3/24/2016	NECHES STATION	TX-0788	Large Combustion Turbines; 25 MW	232	MW	good combustion practices, low sulfur fuel	13.4	LB/H	
4/7/2016	HILL COUNTY GENERATING FACILITY	TX-0794	Simple cycle turbine	171	MW	Premixing of fuel and air enhances combustion efficiency and minimizes emissions.	14	LB/H	
8/26/2016	BAYONNNE ENERGY CENTER	NJ-0086	Simple Cycle Stationary Turbines firing Natural gas	2143980	MMBTU/YR	Use of Natural gas a clean burning fuel	5	LB/H	AV OF THREE ONE H STACK TESTS EVERY 5 YR
8/26/2016	BAYONNNE ENERGY CENTER	NJ-0086	Simple Cycle Stationary Turbines firing Natural gas	2143980	MMBTU/YR	Use of Natural gas a clean burning fuel	5	LB/H	AV OF THREE ONE H STACK TESTS EVERY 5 YR
9/7/2016	GREENIDGE STATION	NY-0106	Turbine - natural gas	107	MW	Baghouse with leak detection system.	8.25	E-3 LB/MMBTU	1 H
9/7/2016	GREENIDGE STATION	NY-0106	Turbine - natural gas	107	MW	Baghouse with leak detection system.	0.002	LB/MMBTU	1 H
9/27/2016	INVENERGY NELSON EXPANSION LLC	IL-0121	Two Simple Cycle Combustion Turbines	190	MW	turbine design and good combustion practices	0.0038	LB/MMBTU	3-HOUR BLOCK AVERAGE
9/27/2016	INVENERGY NELSON EXPANSION LLC	IL-0121	Two Simple Cycle Combustion Turbines	190	MW	turbine design and good combustion practices	0.005	LB/MMBTU	3-HOUR BLOCK AVERAGE
10/4/2016	DOSWELL ENERGY CENTER	VA-0326	Two (2) GE 7FA simple cycle combustion turbines	1961	MMBTU/HR	Good combustion, operation and maintenance practices and use of pipeline quality natural gas	10	LB	H/12 MO ROLLING TOTAL
10/4/2016	DOSWELL ENERGY CENTER	VA-0326	Two (2) GE 7FA simple cycle combustion turbines	1961	MMBTU/HR	Good combustion, operation and maintenance practices and use of pipeline quality natural gas	12	LB	H/12 MO ROLLING TOTAL
1/6/2017	MONTPELIER GENERATING STATION	IN-0264	PRATT; TWIN-PAC SIMPLE CYCLE TURBINES	270.9	MMBTU/H	USE NATURAL GAS AS PRIMARY FUEL; GOOD COMBUSTION PRACTICES	0.0066	LB/MMBTU	3-HR AVG FOR NATURAL GAS
2/17/2017	CAMERON LNG FACILITY	LA-0316	Gas turbines (9 units)	1069	mm btu/hr	good combustion practices and fueled by natural gas	0.0076	LB/MM BTU	THREE ONE-HOUR TEST AVERAGE
2/28/2017	VERMILLION GENERATING STATION	IN-0261	SIMPLE CYCLE, NATURAL GAS FIRED COMBUSTION TURBINES	80	MW	GOOD COMBUSTION PRACTICES	5	LB/H	EACH TURBINE
2/28/2017	VERMILLION GENERATING STATION	IN-0261	SIMPLE CYCLE, NATURAL GAS FIRED COMBUSTION TURBINES	80	MW	GOOD COMBUSTION PRACTICES	5	LB/H	EACH TURBINE
4/28/2017	GAINES COUNTY POWER PLANT	TX-0819	Simple Cycle Turbine	227.5	MW	Pipeline quality natural gas; limited hours; good combustion practices	8.5	T/YR	
4/28/2017	GAINES COUNTY POWER PLANT	TX-0819	Simple Cycle Turbine	227.5	MW	Pipeline quality natural gas; limited hours; good combustion practices	8.5	T/YR	
8/16/2017	MUSTANG STATION	TX-0826	Simple Cycle Turbine	162.8	MW	Pipeline quality natural gas and good combustion practices	27	T/YR	
1/26/2018	JACKSON COUNTY GENERATORS	TX-0833	Combustion Turbines	920	MW	Use of pipeline quality natural gas and good combustion practices.	11.81	TON/YR	
1/26/2018	JACKSON COUNTY GENERATORS	TX-0833	Combustion Turbines	920	MW	Use of pipeline quality natural gas and good combustion practices.	11.81	TON/YR	
1/26/2018	JACKSON COUNTY GENERATORS	TX-0833	Combustion Turbines MSS	0		Minimizing duration of startup/shutdown, using good air pollution control practices and safe operating practices.	0.01	TON/YR	
1/26/2018	JACKSON COUNTY GENERATORS	TX-0833	Combustion Turbines MSS	0		Minimizing duration of startup/shutdown, using good air pollution control practices and safe operating practices.	0.01	TON/YR	
5/23/2018	WASHINGTON PARISH ENERGY CENTER	*LA-0327	CTG01 CO - Simple-Cycle Combustion Turbine 1 (Commissioning) [SCN0005]	2201	MM BTU/hr	Good combustion practices and the use of low sulfur fuels (pipeline quality natural gas)	6.3	LB/HR	HOURLY MAXIMUM
5/23/2018	WASHINGTON PARISH ENERGY CENTER	*LA-0327	CTG02 CO - Simple-Cycle Combustion Turbine 2 (Commissioning) [SCN0006]	2201	MM BTU/hr	Good combustion practices and the use of low sulfur fuels (pipeline quality natural gas)	6.3	LB/HR	HOURLY MAXIMUM
5/23/2018	WASHINGTON PARISH ENERGY CENTER	*LA-0327	CTG01 SUSD - Simple-Cycle Combustion Turbine 1 (Startup/Shutdown/ Maintenance/Tuning/Runback) [EQT0019]	2201	MM BTU/hR	Good combustion practices and the use of low sulfur fuels (pipeline quality natural gas)	6.3	LB/HR	HOURLY MAXIMUM
5/23/2018	WASHINGTON PARISH ENERGY CENTER	*LA-0327	CTG02 SUSD - Simple-Cycle Combustion Turbine 2 (Startup/Shutdown/ Maintenance/Tuning/Runback) [EQT0020]	2201	MM BTU/hr	Good combustion practices and the use of low sulfur fuels (pipeline quality natural gas)	6.3	LB/HR	HOURLY MAXIMUM
5/23/2018	WASHINGTON PARISH ENERGY CENTER	*LA-0327	CTG01 NO - Simple-Cycle Combustion Turbine 1 (Normal Operations) [EQT0017]	2201	MM BTU/hr	Good combustion practices and the use of low sulfur fuels (pipeline quality natural gas)	6.3	LB/HR	HOURLY MAXIMUM
5/23/2018	WASHINGTON PARISH ENERGY CENTER	*LA-0327	CTG02 NO - Simple-Cycle Combustion Turbine 2 (Normal Operations) [EQT0018]	2201	MM BTU/hr	Good combustion practices and the use of low sulfur fuels (pipeline quality natural gas)	6.3	LB/HR	HOURLY MAXIMUM
7/10/2018	DRIFTWOOD LNG FACILITY	LA-0349	Compressor Turbines (20)	540	mm btu/hr	Good Combustion Practices and Use of low sulfur facility fuel gas	0.0066	LB/MM BTU	
9/21/2018	CALCASIEU PASS LNG PROJECT	LA-0331	Simple Cycle Combustion Turbines (SCCT1 to SCCT3)	927	MM BTU/h	Exclusive Combustion of Fuel Gas and Good Combustion Practices, Including Proper Burner Design.	8	LB/H	3 HOUR AVERAGE
12/17/2018	RIO BRAVO PIPELINE FACILITY	TX-0851	Refrigeration Compression Turbines	967	MMBTU/HR	Good combustion practices and use of pipeline quality natural gas.	7	LB/HR	
12/21/2018	LBWL--ERICKSON STATION	MI-0441	EUCTGSC1-A nominally rated 667 MMBTU/hr natural gas-fired simple cycle CTG	667	MMBTU/H	Pipeline quality natural gas, inlet air conditioning and good combustion practices.	4.5	LB/H	HOURLY
8/13/2020	GAS TREATMENT PLANT	AK-0085	Six (6) Simple Cycle Gas-Turbines (Power Generation)	386	MMBtu/hr	Good Combustion Practices and burning clean fuels (NG)	0.007	LB/MMBTU	3-HOUR AVERAGE
8/13/2020	GAS TREATMENT PLANT	AK-0085	Six (6) Simple Cycle Gas-Turbines (Power Generation)	386	MMBtu/hr	Good Combustion Practices and burning clean fuels (NG)	0.007	LB/MMBTU	3-HOUR AVERAGE
9/3/2020	LAKE CHARLES LNG EXPORT TERMINAL	LA-0383	Turbines (EQT0020 - EQT0031)	0		Good combustion practices and clean natural gas	0		

RBLC Entries for PM_{10} Control from Turbines

Date	Facility Name	RBLC ID	PROCESS NAME	THROUGHPUT	THROUGHPUT UNIT	Control Method	Limit No. 1	Unit	Averaging Period
1/7/2021	LBWL--ERICKSON STATION	MI-0447	EUCTGSC1-natural gas fired simple cycle CTG	667	MMBTU/H	Pipeline quality natural gas, inlet air conditioning and good combustion practices.	4.5	LB/H	HOURLY
9/21/2021	COLBERT COMBUSTION TURBINE PLANT	AL-0329	Three 229 MW Simple Cycle Combustion Turbines	229	MW		0.008	LB/MMBTU	3 HOUR AVG
11/17/2021	NACERO PENWELL FACILITY	TX-0933	TURBINE	0		good combustion practices and the use of gaseous fuel	0.0075	LB/MMBTU	
11/17/2021	NACERO PENWELL FACILITY	TX-0933	TURBINE	0		good combustion practices and the use of gaseous fuel	0.0075	LB/MMBTU	
7/7/2022	LIQUEFACTION PLANT	AK-0088	Six Simple Cycle Gas-Fired Turbines	1113	MMBtu/hr	Good combustion practices and burning clean fuel (natural gas)	0.007	LB/MMBTU	3-HOURS
7/7/2022	LIQUEFACTION PLANT	AK-0088	Six Simple Cycle Gas-Fired Turbines	1113	MMBtu/hr	Good combustion practices and burning clean fuel (natural gas)	0.007	LB/MMBTU	3-HOURS
8/31/2022	TENNESSEE VALLEY AUTHORITY - JOHNSONVILLE COMBUSTION TURBINE	*TN-0187	Ten Simple Cycle NG Turbines	465.8	MMBtu/hr	good combustion design and operating practices and the use of low sulfur fuel	3.65	LB/HR	
12/20/2022	LBWL-ERICKSON STATION	MI-0454	EUCTGSC1--A nominally rated 667 MMBTU/H natural gas-fired simple cycle CTG	667	MMBTU/H	Pipeline quality natural gas, inlet air conditioning and good combustion practices.	4.5	LB/H	HOURLY
3/28/2023	COMMONWEALTH LNG FACILITY	LA-0324	Refrigeration Turbines and Generator Turbines (EQT0001 - EQT0006 and EQT0013 - EQT0015)	575	mm btu/hr	Good combustion practices.	0.0183	LB/MMBTU	
6/13/2024	FREESTONE PEAKERS PLANT	TX-0975	Simple Cycle Gas Turbines	221	MW	Good combustion practices	0		
6/13/2024	FREESTONE PEAKERS PLANT	TX-0975	Simple Cycle Gas Turbines	221	MW	Good combustion practices	0		
12/27/2024	JACK COUNTY GENERATION FACILITY	TX-0986	COMBUSTION TURBINES	180.2	MW	Pipeline quality natural gas and good combustion practices are used, which meets Tier I BACT. The turbines are proposed to meet 0.0075 lb/MMBtu total particulate matter. It is assumed that emissions of PM2.5 are equal to PM10, which are equal to total PM. No technically feasible post-combustion control technologies are available to reduce particulate matter emissions from gas turbines due to the large amount of excess air inherent to the turbine operation and would create an unacceptable amount of backpressure.	0.0075	LB/MMBTU	
12/27/2024	JACK COUNTY GENERATION FACILITY	TX-0986	COMBUSTION TURBINES	180.2	MW	Pipeline quality natural gas and good combustion practices are used, which meets Tier I BACT. The turbines are proposed to meet 0.0075 lb/MMBtu total particulate matter. It is assumed that emissions of PM2.5 are equal to PM10, which are equal to total PM. No technically feasible post-combustion control technologies are available to reduce particulate matter emissions from gas turbines due to the large amount of excess air inherent to the turbine operation and would create an unacceptable amount of backpressure.	0		
3/31/2025	SYCAMORE RIVERSIDE ENERGY LLC	IN-0384	Four GE 7FA.05 simple cycle combustion turbines	240	MW Each	good combustion practices, low sulfur fuels	0.0031	LB	MMBTU NG STEADY STATE
3/31/2025	SYCAMORE RIVERSIDE ENERGY LLC	IN-0384	Four GE 7FA.05 simple cycle combustion turbines	240	MW Each	good combustion practices and low sulfur fuel content	0.0031	LB	MMBTU NG STEADY STATE

RBLC Entries for $PM_{2.5}$ Control from Turbines

Date	Facility Name	RBLC ID	PROCESS NAME	THROUGHPUT	THROUGHPUT UNIT	Control Method	Limit No. 1	Unit	Averaging Period
2/2/2015	INDECK WHARTON ENERGY CENTER	TX-0694	(3) combustion turbines	220	MW		0		
5/12/2015	ANTELOPE ELK ENERGY CENTER	TX-0733	Simple Cycle Turbine; Generator	202	MW	Pipeline quality natural gas; limited hours; good combustion practices.	0		
8/25/2015	LAUDERDALE PLANT	FL-0354	Five 200-MW combustion turbines	2100	MMBtu/hr (approx)	Clean fuel prevents PM formation	2	GR. S / 100 SCF	FUEL RECORD KEEPING
9/10/2015	FORT MYERS PLANT	FL-0355	Combustion Turbines	2262.4	MMBtu/hr gas	Use of clean fuels	2	GR S / 100 SCF GAS	FOR NATURAL GAS
10/9/2015	SHAWNEE ENERGY CENTER	TX-0768	Simple cycle turbines greater than 25 megawatts (MW)	230	MW	Pipeline quality natural gas; limited hours; good combustion practices.	84.1	LB/HR	
10/14/2015	NACOGDOCHES POWER ELECTRIC GENERATING PLANT	TX-0764	Natural Gas Simple Cycle Turbine (25 MW)	232	MW	Pipeline quality natural gas; limited hours; good combustion practices.	12.09	LB/HR	
10/27/2015	VAN ALSTYNE ENERGY CENTER (VAEC)	TX-0769	Simple Cycle Turbine	183	MW	Pipeline Quality Natural Gas	8.6	LB/H	
12/9/2015	UNION VALLEY ENERGY CENTER	TX-0777	Simple Cycle Turbine	183	MW	pipeline quality natural gas, good combustion practices	8.6	LB/H	
3/21/2016	MAGNOLIA LNG FACILITY	LA-0307	Gas Turbines (8 units)	333	mm btu/hr	good combustion practices and fueled by natural gas	0		
3/24/2016	NECHES STATION	TX-0788	Large Combustion Turbines; 25 MW	232	MW	good combustion practices, low sulfur fuel	13.4	LB/H	
4/7/2016	HILL COUNTY GENERATING FACILITY	TX-0794	Simple cycle turbine	171	MW	Premixing of fuel and air enhances combustion efficiency and minimizes emissions.	14	LB/H	
8/26/2016	BAYONNNE ENERGY CENTER	NJ-0086	Simple Cycle Stationary Turbines firing Natural gas	2143980	MMBTU/YR	Use of natural gas a clean burning fuel	5	LB/H	AV OF THREE ONE H STACK TESTS EVERY 5 YR
9/7/2016	GREENIDGE STATION	NY-0106	Turbine - natural gas	107	MW	Baghouse with leak detection system.	8.25	E-3 LB/MMBTU	1 H
9/27/2016	INVENERGY NELSON EXPANSION LLC	IL-0121	Two Simple Cycle Combustion Turbines	190	MW	turbine design and good combustion practices	0.005	LB/MMBTU	3-HOUR BLOCK AVERAGE
10/4/2016	DOSWELL ENERGY CENTER	VA-0326	Two (2) GE 7FA simple cycle combustion turbines	1961	MMBTU/HR	Good combustion, operation and maintenance practices and use of pipeline quality natural gas	12	LB	H/12 MO ROLLING TOTAL
1/6/2017	MONTPELIER GENERATING STATION	IN-0264	PRATT; TWIN-PAC SIMPLE CYCLE TURBINES	270.9	MMBTU/H	NATURAL GAS PRIMARY FUEL; GOOD COMBUSTION PRACTICES	0.0066	LB/MMBTU	3-HR AVG FOR NATURAL GAS
1/23/2017	WAVERLY FACILITY	WV-0026	GE Model 7FA Turbine	1571	mmbtu/hr	Inlet Air Filtration, Use of Natural Gas, Ultra-Low Sulfur Diesel	15	LB/HR	NATURAL GAS
2/14/2017	CORPUS CHRISTI LIQUEFACTION	TX-0816	Refrigeration compressor turbines	40000	HP		0.75	LB/H	
2/17/2017	CAMERON LNG FACILITY	LA-0316	Gas turbines (9 units)	1069	mm btu/hr	good combustion practices and fueled by natural gas	0.0076	LB/MM BTU	THREE ONE-HOUR TEST AVERAGE
2/28/2017	VERMILLION GENERATING STATION	IN-0261	SIMPLE CYCLE, NATURAL GAS FIRED COMBUSTION TURBINES	80	MW	GOOD COMBUSTION PRACTICES	5	LB/H	EACH TURBINE
4/28/2017	GAINES COUNTY POWER PLANT	TX-0819	Simple Cycle Turbine	227.5	MW	Pipeline quality natural gas; limited hours; good combustion practices	8.5	T/YR	
8/16/2017	MUSTANG STATION	TX-0826	Simple Cycle Turbine	162.8	MW	Pipeline quality natural gas and good combustion practices	27	T/YR	
1/26/2018	JACKSON COUNTY GENERATORS	TX-0833	Combustion Turbines	920	MW	Use of pipeline quality natural gas and good combustion practices.	11.81	TON/YR	
1/26/2018	JACKSON COUNTY GENERATORS	TX-0833	Combustion Turbines MSS	0		Minimizing duration of startup/shutdown, using good air pollution control practices and safe operating practices.	0.01	TON/YR	
3/13/2018	WAVERLY POWER PLANT	WV-0028	GE 7FA.004 Turbine	167.8	MW	Inlet air filtration.	15.09	LB/HR	
5/23/2018	WASHINGTON PARISH ENERGY CENTER	*LA-0327	CTG01 CO - Simple-Cycle Combustion Turbine 1 (Commissioning) [SCN0005]	2201	MM BTU/hr	Good combustion practices and the use of low sulfur fuels (pipeline quality natural gas)	6.3	LB/HR	HOURLY MAXIMUM
5/23/2018	WASHINGTON PARISH ENERGY CENTER	*LA-0327	CTG02 CO - Simple-Cycle Combustion Turbine 2 (Commissioning) [SCN0006]	2201	MM BTU/hr	Good combustion practices and the use of low sulfur fuels (pipeline quality natural gas)	6.3	LB/HR	HOURLY MAXIMUM
5/23/2018	WASHINGTON PARISH ENERGY CENTER	*LA-0327	CTG01 SUSD - Simple-Cycle Combustion Turbine 1 (Startup/Shutdown/ Maintenance/Tuning/Runback) [EQT0019]	2201	MM BTU/hR	Good combustion practices and the use of low sulfur fuels (pipeline quality natural gas)	6.3	LB/HR	HOURLY MAXIMUM
5/23/2018	WASHINGTON PARISH ENERGY CENTER	*LA-0327	CTG02 SUSD - Simple-Cycle Combustion Turbine 2 (Startup/Shutdown/ Maintenance/Tuning/Runback) [EQT0020]	2201	MM BTU/hr	Good combustion practices and the use of low sulfur fuels (pipeline quality natural gas)	6.3	LB/HR	HOURLY MAXIMUM
5/23/2018	WASHINGTON PARISH ENERGY CENTER	*LA-0327	CTG01 NO - Simple-Cycle Combustion Turbine 1 (Normal Operations) [EQT0017]	2201	MM BTU/hr	Good combustion practices & use of low sulfur fuels (pipeline quality natural gas)	6.3	LB/HR	HOURLY MAXIMUM
5/23/2018	WASHINGTON PARISH ENERGY CENTER	*LA-0327	CTG02 NO - Simple-Cycle Combustion Turbine 2 (Normal Operations) [EQT0018]	2201	MM BTU/hr	Good combustion practices & use of low sulfur fuels (pipeline quality natural gas)	6.3	LB/HR	HOURLY MAXIMUM
7/10/2018	DRIFTWOOD LNG FACILITY	LA-0349	Compressor Turbines (20)	540	mm btu/hr	Good Combustion Practices and Use of low sulfur facility fuel gas	0.0066	LB/MM BTU	
9/21/2018	CALCASIEU PASS LNG PROJECT	LA-0331	Simple Cycle Combustion Turbines (SCCT1 to SCCT3)	927	MM BTU/h	Exclusive Combustion of Fuel Gas and Good Combustion Practices, Including Proper Burner Design.	8	LB/H	3 HOUR AVERAGE
12/17/2018	RIO BRAVO PIPELINE FACILITY	TX-0851	Refrigeration Compression Turbines	967	MMBTU/HR	Good combustion practices and use of pipeline quality natural gas.	7	LB/HR	
12/21/2018	LBWL--ERICKSON STATION	MI-0441	EUCTGSC1-A nominally rated 667 MMBTU/hr natural gas-fired simple cycle CTG	667	MMBTU/H	Pipeline quality natural gas, inlet air conditioning and good combustion practices.	4.5	LB/H	HOURLY
8/13/2020	GAS TREATMENT PLANT	AK-0085	Six (6) Simple Cycle Gas-Turbines (Power Generation)	386	MMBtu/hr	Good Combustion Practices and burning clean fuels (NG)	0.007	LB/MMBTU	3-HOUR AVERAGE
9/3/2020	LAKE CHARLES LNG EXPORT TERMINAL	LA-0383	Turbines (EQT0020 - EQT0031)	0		Good combustion practices and clean natural gas	0		
1/7/2021	LBWL--ERICKSON STATION	MI-0447	EUCTGSC1-natural gas fired simple cycle CTG	667	MMBTU/H	Pipeline quality natural gas, inlet air conditioning and good combustion practices.	4.5	LB/H	HOURLY
9/21/2021	COLBERT COMBUSTION TURBINE PLANT	AL-0329	Three 229 MW Simple Cycle Combustion Turbines	229	MW		0.008	LB/MMBTU	3 HOUR AVG
11/17/2021	NACERO PENWELL FACILITY	TX-0933	TURBINE	0		good combustion practices and the use of gaseous fuel	0.0075	LB/MMBTU	
7/7/2022	LIQUEFACTION PLANT	AK-0088	Six Simple Cycle Gas-Fired Turbines	1113	MMBtu/hr	Good combustion practices and burning clean fuel (natural gas)	0.007	LB/MMBTU	3-HOURS
12/20/2022	LBWL-ERICKSON STATION	MI-0454	EUCTGSC1--A nominally rated 667 MMBTU/H natural gas-fired simple cycle CTG	667	MMBTU/H	Pipeline quality natural gas, inlet air conditioning and good combustion practices.	4.5	LB/H	HOURLY
3/28/2023	COMMONWEALTH LNG FACILITY	LA-0324	Refrigeration Turbines and Generator Turbines (EQT0001 - EQT0006 and EQT0013 - EQT0015)	575	mm btu/hr	Good combustion practices.	0.0183	LB/MM BTU	
6/13/2024	FREESTONE PEAKERS PLANT	TX-0975	Simple Cycle Gas Turbines	221	MW	Good combustion practices	0		

RBLC Entries for $PM_{2.5}$ Control from Turbines

Date	Facility Name	RBLC ID	PROCESS NAME	THROUGHPUT	THROUGHPUT UNIT	Control Method	Limit No. 1	Unit	Averaging Period
12/27/2024	JACK COUNTY GENERATION FACILITY	TX-0986	COMBUSTION TURBINES	180.2	MW	Pipeline quality natural gas and good combustion practices are used, which meets Tier I BACT. The turbines are proposed to meet 0.0075 lb/MMBtu total particulate matter. It is assumed that emissions of PM2.5 are equal to PM10, which are equal to total PM. No technically feasible post-combustion control technologies are available to reduce particulate matter emissions from gas turbines due to the large amount of excess air inherent to the turbine operation and would create an unacceptable amount of backpressure.	0		
3/31/2025	SYCAMORE RIVERSIDE ENERGY LLC	IN-0384	Four GE 7FA.05 simple cycle combustion turbines	240	MW Each	good combustion practices and low sulfur fuel content.	0.0031	LB	MMBTU NG STEADY STATE

RBLC Entries for Sulfur Dioxide Control from Turbines

Date	Facility Name	RBLC ID	PROCESS NAME	THROUGHPUT	THROUGHPUT UNIT	Control Method	Limit No. 1	Unit	Averaging Period
8/25/2015	LAUDERDALE PLANT	FL-0354	Five 200-MW combustion turbines	2100	MMBtu/hr (approx)	Limitation on S in fuel	2	GR. S / 100 SCF	FUEL RECORD KEEPING
9/10/2015	FORT MYERS PLANT	FL-0355	Combustion Turbines	2262.4	MMBtu/hr gas	Use of clean fuels	2	GR S / 100 SCF GAS	FOR NATURAL GAS
3/24/2016	NECHES STATION	TX-0788	Large Combustion Turbines; 25 MW	232	MW	good combustion practices, low sulfur fuel	1	GR/100 SCF	HOURLY
8/26/2016	BAYONNNE ENERGY CENTER	NJ-0086	Simple Cycle Stationary Turbines firing Natural gas	2143980	MMBTU/YR	Use of natural gas a low sulfur fuel	0.77	LB/H	AV OF THREE ONE H STACK TESTS EVERY 5 YR
2/28/2017	VERMILLION GENERATING STATION	IN-0261	SIMPLE CYCLE, NATURAL GAS FIRED COMBUSTION TURBINES	80	MW	GOOD COMBUSTION PRACTICES	0.6	LB/H	EACH TURBINE
4/28/2017	GAINES COUNTY POWER PLANT	TX-0819	Simple Cycle Turbine	227.5	MW	Pipeline quality natural gas; limited hours; good combustion practices	1.54	GR/100 DSCF	
7/10/2018	DRIFTWOOD LNG FACILITY	LA-0349	Compressor Turbines (20)	540	mm btu/hr	Good Combustion Practices and Use of low sulfur facility fuel gas	0		
9/21/2018	CALCASIEU PASS LNG PROJECT	LA-0331	Simple Cycle Combustion Turbines (SCCT1 to SCCT3)	927	MM BTU/h	Exclusive Combustion of low sulfur fuel - Fuel sulfur content <4 ppm, proper engineering practices.	4	PPMV	ANNUAL AVERAGE
8/13/2020	GAS TREATMENT PLANT	AK-0085	Six (6) Simple Cycle Gas-Turbines (Power Generation)	386	MMBtu/hr	Good combustion practices and clean burning fuel low sulfur natural gas	96	PPMV SULFUR IN FUEL	PRIOR TO COMPLETING TREATMENT TRAINS
11/17/2021	NACERO PENWELL FACILITY	TX-0933	TURBINE	0		Low sulfur content in fuel	0		
7/7/2022	LIQUEFACTION PLANT	AK-0088	Six Simple Cycle Gas-Fired Turbines	1113	MMBtu/hr	pipeline quality natural gas and good combustion practices	16	PPMV SULFUR IN FUEL	
3/28/2023	COMMONWEALTH LNG FACILITY	LA-0324	Refrigeration Turbines and Generator Turbines (EQT0001 - EQT0006 and EQT0013 - EQT0015)	575	mm btu/hr	Good combustion practices and use of low sulfur fuels	0.0134	LB/MM BTU	
12/27/2024	JACK COUNTY GENERATION FACILITY	TX-0986	COMBUSTION TURBINES	180.2	MW	Pipeline quality natural gas containing no more than 2 grains sulfur per 100 dry standard cubic foot natural gas (gr S/100 dscf) is used. Tier I BACT for simple cycle natural gas fired turbines is good combustion practices and pipeline quality natural gas with a maximum sulfur content of 2 to 5 gr S/100 dscf on an hourly basis and between 0.5 to 1 gr S/100 dscf on an annual basis. While the hourly value is met, the annual Tier I BACT guideline is exceeded. As justification for the annual Tier I BACT guideline, the limited hours of operation authorized at no more than 2,500 hours per year per turbine results in an effective annual sulfur content of 0.57 gr S/100 dscf when compared to continuous operation of 2 gr S/100 scf at 8,760 hours per year	0		

RBLC Entries for Volatile Organic Compounds Control from Turbines

Date	Facility Name	RBLC ID	PROCESS NAME	THROUGHPUT	THROUGHPUT UNIT	Control Method	Limit No. 1	Unit	Averaging Period
5/12/2015	ANTELOPE ELK ENERGY CENTER	TX-0733	Simple Cycle Turbine; Generator	202	MW	Good combustion practices	2	PPMVD @ 15% O2	
10/9/2015	SHAWNEE ENERGY CENTER	TX-0768	Simple cycle turbines greater than 25 megawatts (MW)	230	MW	Pipeline quality natural gas; limited hours; good combustion practices.	1.4	PPMV	
10/14/2015	NACOGDOCHES POWER ELECTRIC GENERATING PLANT	TX-0764	Natural Gas Simple Cycle Turbine (25 MW)	232	MW	Pipeline quality natural gas; limited hours; good combustion practices.	2	PPMVD @ 15% O2	
2/12/2016	TENASKA PA PARTNERS/WESTMORELAND GEN FAC	PA-0306	Large Combustion turbine	0		Ox Cat and good combustion practices	1.4	PPMVD @ 15% O2	
3/21/2016	MAGNOLIA LNG FACILITY	LA-0307	Gas Turbines (8 units)	333	mm btu/hr	good combustion practices and fueled by natural gas	0		
3/24/2016	NECHES STATION	TX-0788	Large Combustion Turbines; 25 MW	232	MW	good combustion practices	2	PPM	
4/7/2016	HILL COUNTY GENERATING FACILITY	TX-0794	Simple cycle turbine	171	MW	Premixing of fuel and air enhances combustion efficiency and minimizes emissions.	5.4	LB/H	
8/26/2016	BAYONNNE ENERGY CENTER	NJ-0086	Simple Cycle Stationary Turbines firing Natural gas	2143980	MMBTU/YR	Add-on VOC control is Oxidation Catalyst, and use of natural gas as fuel for pollution prevention	2	PPMVD@15%O2	3 H ROLLING AV BASED ON ONE H BLOCK AV
10/13/2016	PUENTE POWER	CA-1238	Gas turbine	262	MW		2	PPMVD AS METHANE	1 HOUR@15%O2
2/14/2017	CORPUS CHRISTI LIQUEFACTION	TX-0816	Refrigeration compressor turbines	40000	HP	Good combustion practices	0.68	LB/H	
2/17/2017	CAMERON LNG FACILITY	LA-0316	Gas turbines (9 units)	1069	mm btu/hr	good combustion practices and fueled by natural gas	1.6	PPMVD	@15%O2
2/28/2017	VERMILLION GENERATING STATION	IN-0261	SIMPLE CYCLE, NATURAL GAS FIRED COMBUSTION TURBINES	80	MW	GOOD COMBUSTION PRACTICES	17.6	LB/H	EACH TURBINE
4/28/2017	GAINES COUNTY POWER PLANT	TX-0819	Simple Cycle Turbine	227.5	MW	Pipeline quality natural gas; limited hours; good combustion practices	2	PPMVD	145% O2
1/26/2018	JACKSON COUNTY GENERATORS	TX-0833	Combustion Turbines	920	MW	Good combustion practices	2	PPMVD	
1/26/2018	JACKSON COUNTY GENERATORS	TX-0833	Combustion Turbines MSS	0		Minimizing duration of startup/shutdown, using good air pollution control practices and safe operating practices.	0.06	TON/YR	
5/23/2018	WASHINGTON PARISH ENERGY CENTER	*LA-0327	CTG01 CO - Simple-Cycle Combustion Turbine 1 (Commissioning) [SCN0005]	2201	MM BTU/hr	Good combustion practices & use of pipeline quality natural gas	0		
5/23/2018	WASHINGTON PARISH ENERGY CENTER	*LA-0327	CTG02 CO - Simple-Cycle Combustion Turbine 2 (Commissioning) [SCN0006]	2201	MM BTU/hr	Good combustion practices & use of pipeline quality natural gas	0		
5/23/2018	WASHINGTON PARISH ENERGY CENTER	*LA-0327	CTG01 SUSD - Simple-Cycle Combustion Turbine 1 (Startup/Shutdown/ Maintenance/Tuning/Runback) [EQT0019]	2201	MM BTU/hR	Good combustion practices & use of pipeline quality natural gas	0		
5/23/2018	WASHINGTON PARISH ENERGY CENTER	*LA-0327	CTG02 SUSD - Simple-Cycle Combustion Turbine 2 (Startup/Shutdown/ Maintenance/Tuning/Runback) [EQT0020]	2201	MM BTU/hr	Good combustion practices & use of pipeline quality natural gas	0		
5/23/2018	WASHINGTON PARISH ENERGY CENTER	*LA-0327	CTG01 NO - Simple-Cycle Combustion Turbine 1 (Normal Operations) [EQT0017]	2201	MM BTU/hr	Good combustion practices & use of pipeline quality natural gas	0		
5/23/2018	WASHINGTON PARISH ENERGY CENTER	*LA-0327	CTG02 NO - Simple-Cycle Combustion Turbine 2 (Normal Operations) [EQT0018]	2201	MM BTU/hr	Good combustion practices & use of pipeline quality natural gas	0		
7/10/2018	DRIFTWOOD LNG FACILITY	LA-0349	Compressor Turbines (20)	540	mm btu/hr	Good Combustion Practices and Use of low sulfur facility fuel gas	0.002	LB/MM BTU	HHV
9/21/2018	CALCASIEU PASS LNG PROJECT	LA-0331	Simple Cycle Combustion Turbines (SCCT1 to SCCT3)	927	MM BTU/h	Proper Equipment Design, Proper Operation, and Good Combustion Practices.	1.4	PPMV	3 HOUR AVERAGE
12/17/2018	RIO BRAVO PIPELINE FACILITY	TX-0851	Refrigeration Compression Turbines	967	MMBTU/HR	Good combustion practices	2	PPMVD	15% O2
12/21/2018	LBWL--ERICKSON STATION	MI-0441	EUCTGSC1-A nominally rated 667 MMBTU/hr natural gas-fired simple cycle CTG	667	MMBTU/H	Good combustion practices.	5	LB/H	HOURLY EXCEPT DURING STARTUP/SHUTDOWN
8/13/2020	GAS TREATMENT PLANT	AK-0085	Six (6) Simple Cycle Gas-Turbines (Power Generation)	386	MMBtu/hr	Good Combustion Practices and burning clean fuels (NG)	0.0022	LB/MMBTU	3-HOUR AVERAGE
9/3/2020	LAKE CHARLES LNG EXPORT TERMINAL	LA-0383	Turbines (EQT0020 - EQT0031)	0		Good combustion practices	0		
1/7/2021	LBWL--ERICKSON STATION	MI-0447	EUCTGSC1-natural gas fired simple cycle CTG	667	MMBTU/H	Good combustion practices	5	LB/H	HOURLY; EXCEPT DURING STARTUP/SHUTDOWN
11/17/2021	NACERO PENWELL FACILITY	TX-0933	TURBINE	0		Oxidization catalyst, good combustion practices and the use of gaseous fuel	1.7	PPMVD	
7/7/2022	LIQUEFACTION PLANT	AK-0088	Six Simple Cycle Gas-Fired Turbines	1113	MMBtu/hr	Oxidation catalyst and good combustion practices	2	PPMV @ 15% O2	3-HOURS
12/20/2022	LBWL-ERICKSON STATION	MI-0454	EUCTGSC1--A nominally rated 667 MMBTU/H natural gas-fired simple cycle CTG	667	MMBTU/H	Good combustion practices.	5	LB/H	HOURLY EXCEPT DURING SU/SD
3/28/2023	COMMONWEALTH LNG FACILITY	LA-0324	Refrigeration Turbines and Generator Turbines (EQT0001 - EQT0006 and EQT0013 - EQT0015)	575	mm btu/hr	Good combustion practices and use of clean fuel.	3	PPMVD	@15% O2
6/13/2024	FREESTONE PEAKERS PLANT	TX-0975	Simple Cycle Gas Turbines	221	MW	Good combustion practices	2	PPMVD	15% O2
12/27/2024	JACK COUNTY GENERATION FACILITY	TX-0986	COMBUSTION TURBINES	180.2	MW	Each turbine is limited to 2 ppmvd at 15% O2, which meets Tier I BACT. Good combustion practices are used. MSS - Limited to 50 startups and 50 shutdowns per year for each turbine. Startup and shutdown events are each expected to last less than an hour in duration.	2	PPMVD	15% O2
3/17/2025	LONE STAR POWER STATION	*TX-0989	Simple Cycle Gas Turbines	0		Oxidation catalyst and good combustion practices	1	PPMVD	15% O2 3-HR
3/31/2025	SYCAMORE RIVERSIDE ENERGY LLC	IN-0384	Four GE 7FA.05 simple cycle combustion turbines	240	MW Each	CLEAN FUELS AND GOOD COMBUSTION PRACTICES	1.4	PPMVD	@ 15% O2 (NG) STEADY STATE OPERATIONS

RBLC Entries for GHG Control from Turbines

Date	Facility Name	RBLC ID	PROCESS NAME	THROUGHPUT	THROUGHPUT UNIT	Control Method	Limit No. 1	Unit
2/27/2015	CORPUS CHRISTI LIQUEFACTION PLANT	TX-0679	Refrigeration Compressor Turbines	40000	hp	install efficient turbines, follow the turbine manufacturers emission-related written instructions for maintenance activities including prescribed maintenance intervals to assure good combustion and efficient operation. Compressors shall be inspected and maintained according to a written maintenance plan to maintain efficiency.	146754	TPY
5/20/2015	ANTELOPE ELK ENERGY CENTER	TX-0735	Simple Cycle Turbine; Generator	202	MW	Energy efficiency, good design & combustion practices	1304	LB CO2/MWHR
9/10/2015	FORT MYERS PLANT	FL-0355	Combustion Turbines	2262.4	MMBtu/hr gas	Use of low-emitting fuel and efficient turbine	1374	LB CO2E / MWH
11/10/2015	SHAWNEE ENERGY CENTER	TX-0771	Simple cycle turbines greater than 25 megawatts (MW)	230	MW		1398	LB/MWH
11/13/2015	CLEAR SPRINGS ENERGY CENTER (CSEC)	TX-0775	Simple Cycle Turbine	183	MW	Low carbon fuel, good combustion, efficient combined cycle design	1461	LB/MW H
12/16/2015	UNION VALLEY ENERGY CENTER	TX-0778	Simple Cycle Turbine	183	MW		1461	LB/MW H
3/21/2016	MAGNOLIA LNG FACILITY	LA-0307	Gas Turbines (8 units)	333	mm btu/hr	good combustion/operating/maintenance practices and fueled by natural gas; use intake air chiller	0	
3/24/2016	NECHES STATION	TX-0788	Large Combustion Turbines; 25 MW	232	MW	good combustion practices	1341	LB/MW H
4/7/2016	HILL COUNTY GENERATING FACILITY	TX-0794	Simple cycle turbine	171	MW		1434	LB/MWH
9/27/2016	INVENERGY NELSON EXPANSION LLC	IL-0121	Two Simple Cycle Combustion Turbines	190	MW	Turbine-generator design and proper operation	0	
10/4/2016	DOSWELL ENERGY CENTER	VA-0326	Two (2) GE 7FA simple cycle combustion turbines	1961	MMBTU/HR	Good combustion, maintenance and use of active combustion dynamic monitoring systems.	0	
2/14/2017	CORPUS CHRISTI LIQUEFACTION	TX-0816	Refrigeration compressor turbines	40000	HP		1793574	T/YR
2/17/2017	CAMERON LNG FACILITY	LA-0316	Gas turbines (9 units)	1069	mm btu/hr	good combustion practices and fueled by natural gas; Use high thermal efficiency turbines	0	
4/28/2017	GAINES COUNTY POWER PLANT	TX-0819	Simple Cycle Turbine	227.5	MW	Pipeline quality natural gas; limited hours; good combustion practices	1300	LB/MW H
6/30/2017	JACKSON COUNTY GENERATING FACILITY	TX-0824	Simple Cycle Turbines	920	MW	energy efficiency designs, practices, and procedures, CT inlet air cooling, periodic CT burner maintenance and tuning, reduction in heat loss, i.e., insulation of the CT, instrumentation and controls	1316	LB/MW HR
8/16/2017	MUSTANG STATION	TX-0826	Simple Cycle Turbine	162.8	MW	Pipeline quality natural gas and good combustion practices	120	LB/MMBTU
3/13/2018	WAVERLY POWER PLANT	WV-0028	GE 7FA.004 Turbine	167.8	MW	Use of natural gas & use of GE 7FA.004	0	
5/23/2018	WASHINGTON PARISH ENERGY CENTER	*LA-0327	CTG01 SUSD - Simple-Cycle Combustion Turbine 1 (Startup/Shutdown/ Maintenance/Tuning/Runback) [EQT0019]	2201	MM BTU/hR	Facility-wide energy efficiency measures , such as improved combustion measures, and use of pipeline quality natural gas.	120	LB/MM BTU
5/23/2018	WASHINGTON PARISH ENERGY CENTER	*LA-0327	CTG02 SUSD - Simple-Cycle Combustion Turbine 2 (Startup/Shutdown/ Maintenance/Tuning/Runback) [EQT0020]	2201	MM BTU/hr	Facility-wide energy efficiency measures , such as improved combustion measures, and use of pipeline quality natural gas.	120	LB/MM BTU
5/23/2018	WASHINGTON PARISH ENERGY CENTER	*LA-0327	CTG01 NO - Simple-Cycle Combustion Turbine 1 (Normal Operations) [EQT0017]	2201	MM BTU/hr	Facility-wide energy efficiency measures , such as improved combustion measures, and use of pipeline quality natural gas.	50	KG/GJ
5/23/2018	WASHINGTON PARISH ENERGY CENTER	*LA-0327	CTG02 NO - Simple-Cycle Combustion Turbine 2 (Normal Operations) [EQT0018]	2201	MM BTU/hr	Facility-wide energy efficiency measures , such as improved combustion measures, and use of pipeline quality natural gas.	50	KG/GJ
7/10/2018	DRIFTWOOD LNG FACILITY	LA-0349	Compressor Turbines (20)	540	mm btu/hr	Use Low Carbon Fuel, Energy Efficiency Measures, and Good Combustion Practices	0	
9/21/2018	CALCASIEU PASS LNG PROJECT	LA-0331	Simple Cycle Combustion Turbines (SCCT1 to SCCT3)	927	MM BTU/h	Exclusively combust low carbon fuel gas, good combustion practices, good operation and maintenance practices, and insulation	1426146	T/YR
12/17/2018	RIO BRAVO PIPELINE FACILITY	TX-0851	Refrigeration Compression Turbines	967	MMBTU/HR	Good combustion practices and use of pipeline quality natural gas.	0	
8/13/2020	GAS TREATMENT PLANT	AK-0085	Six (6) Simple Cycle Gas-Turbines (Power Generation)	386	MMBtu/hr	Good combustion practices and clean burning fuel (NG)	117.1	LB/MMBTU
8/17/2020	ECTOR COUNTY ENERGY CENTER	TX-0900	Simple Cycle Turbines	0		Best management practices and good combustion practices, clean fuel	1514	LB/MWHR
9/3/2020	LAKE CHARLES LNG EXPORT TERMINAL	LA-0383	Turbines (EQT0020 - EQT0031)	0		Low carbon fuels Energy efficient designs and operation	0	
11/17/2021	NACERO PENWELL FACILITY	TX-0933	TURBINE	0		good combustion practices and the use of gaseous fuel	0	
7/7/2022	LIQUEFACTION PLANT	AK-0088	Six Simple Cycle Gas-Fired Turbines	1113	MMBtu/hr	Good combustion practices and burning clean fuels (natural gas)	117.1	LB/MMBTU
8/31/2022	TENNESSEE VALLEY AUTHORITY - JOHNSONVILLE COMBUSTION TURBINE	*TN-0187	Ten Simple Cycle NG Turbines	465.8	MMBtu/hr	Efficient turbine operation and good combustion practices	120	LB/MMBTU
12/20/2022	LBWL-ERICKSON STATION	MI-0454	EUCTGSC1--A nominally rated 667 MMBTU/H natural gas-fired simple cycle CTG	667	MMBTU/H	Low carbon fuel (pipeline quality natural gas), good combustion practices, and energy efficiency measures.	318404	T/YR
6/13/2024	FREESTONE PEAKERS PLANT	TX-0975	Simple Cycle Gas Turbines	221	MW	Good combustion practices	800	LB/MWH
12/27/2024	JACK COUNTY GENERATION FACILITY	TX-0986	COMBUSTION TURBINES	180.2	MW	JCP proposes an output-based standard of 1,400 lb/MW-hr on an annual average, or an input-based standard of 120 lb CO2/MMBtu on an annual average, achieved through energy efficient design and use of low carbon fuels. As stated above, the gas turbines are not subject to 40 CFR 60 Subpart TTTT or 40 CFR 60 Subpart TTTTa, which would require more stringent CO2e emission standards. An RBLC search was conducted to evaluate the applicant-proposed BACT, which showed that previous determinations for natural gas fired simple cycle turbines were between 800 and 1,707 lb/MW-hr, with most in the range of 1,300 and 1,450 lb/MW-hr.	0	
3/31/2025	SYCAMORE RIVERSIDE ENERGY LLC	IN-0384	Four GE 7FA.05 simple cycle combustion turbines	240	MW Each	GOOD COMBUSTION PRACTICES	15420	BTU

RBLC Entries for Nitrogen Oxides Control from Heaters

Date	Facility Name	RBLC ID	PROCESS NAME	THROUGHPUT	THROUGHPUT UNIT	Control Method	Limit No. 1	Unit
2/2/2015	INDECK WHARTON ENERGY CENTER	TX-0694	heater	3	MMBTU/H		0.1	LB/MMBTU
4/1/2015	PEONY CHEMICAL MANUFACTURING FACILITY	TX-0728	Ammonia Start-Up Heater	8100	MMBtu/yr	limited hours of operation and low NOx burners	1.91	LB/H
5/21/2015	RAMSEY GAS PLANT	TX-0755	Hot Oil Heaters and Regeneration Heaters	60	MMBTU/H	low NOx burners	0.045	LB/MMBTU
7/10/2015	PROPANE DEHYDROGENATION UNIT	TX-0754	Heaters	695	MMBTU/H	Dry Low NOx burners	0.06	LB/MMBTU (HHV)
9/1/2015	MOXIE FREEDOM GENERATION PLANT	PA-0311	Fuel Gas Heater	0			0.011	LB/MMBTU
12/14/2015	CHS MCPHERSON REFINERY, INC.	KS-0032	Process heaters	0			0.03	LB/MMBTU
1/19/2016	CMC STEEL OKLAHOMA	OK-0173	Heaters (Gas-Fired)	0		Natural Gas Fuel	0.1	LB/MMBTU
2/15/2016	WISCONSIN POWER & LIGHT - NEENAH GENERATING STATION	WI-0263	Natural gas-fired glycol heaters (processes P03 and P04)	4.05	mmBtu/hr	Good combustion practices and use natural gas	0.1	LB/MMBTU
2/15/2016	WPSC - WEST MARINETTE	WI-0264	Natural gas-fired pipeline heater (process P14)	3.5	mmBtu/hr	Good combustion practices, fire only pipeline quality natural gas	0.1	LB/MMBTU
3/9/2016	OKEECHOBEE CLEAN ENERGY CENTER	FL-0356	Two natural gas heaters	10	MMBtu/hr	Must have NOx emission design value less than 0.1 lb/MMBtu	0.1	LB/MMBTU
3/21/2016	MAGNOLIA LNG FACILITY	LA-0307	Regenerative Heaters	7.37	mm btu/hr	good combustion practices	0	
3/31/2016	MID-KANSAS ELECTRIC COMPANY, LLC - RUBART STATION	KS-0030	Indirect fuel-gas heater	2	mmBTU/hr		0.2	LB/H
8/26/2016	GRAYLING PARTICLEBOARD	MI-0421	EUTOH (In FGTOH)--Thermal Oil Heater	34	MMBTU/H	Low NOx burners and good design and combustion practices.	0.05	LB/MMBTU
9/2/2016	CPV FAIRVIEW ENERGY CENTER	PA-0310	Dew point heater 13.8	0			0.011	LB/MMBTU
9/2/2016	CPV FAIRVIEW ENERGY CENTER	PA-0310	Dew point heater 3.2	3.2	MMBtu/hr		0.035	LB/MMBTU
9/27/2016	INVENERGY NELSON EXPANSION LLC	IL-0121	Fuel Heater	15	mmbtu/hr		0.033	LB/MMBTU
12/5/2016	HOLLAND BOARD OF PUBLIC WORKS - EAST 5TH STREET	MI-0424	EUFUELHTR (Fuel pre-heater)	3.7	MMBTU/H	Good combustion practices.	0.55	LB/H
1/4/2017	INDECK NILES, LLC	MI-0423	FGFUELHTR (Two fuel pre-heaters identified as EUFUELHTR1 & EUFUELHTR2)	27	MMBTU/H	Good combustion practices.	2.65	LB/H
3/23/2017	MIDWEST FERTILIZER COMPANY LLC	IN-0263	STARTUP HEATER EU-002	70	MMBTU/HR	GOOD COMBUSTION PRACTICES	12.611	LB/H
4/19/2017	PALLAS NITROGEN LLC	OH-0368	Startup Heater (B001)	100	MMBTU/H	Good combustion control (i.e., high temperatures, sufficient excess air, sufficient residence times, and god air/fuel mixing).	10	LB/H
7/27/2017	FIRST QUALITY TISSUE LOCK HAVEN PLT	*PA-0313	Air-Makeup Units and Heaters	76.09	MMbtu/hr		10.95	TPY
8/2/2017	WHITING CLEAN ENERGY, INC.	IN-0285	Space Heaters	0			0.05	LB/MMBTU
10/23/2017	GUERNSEY POWER STATION LLC	OH-0374	Fuel Gas Heaters (2 identical, P007 and P008)	15	MMBTU/H	Low-NOx gas burner	0.3	LB/H
10/31/2017	FIBER INDUSTRIES LLC	SC-0182	Process Heaters	0		Low NOx burners, Clean fuel (NG), good combustion practices to ensure complete combustion, and efficient boiler design. Slowly increase/decrease firing rate while maintaining a minimum of 3% O2 in stack gas, monitor opacity, minimize the heater startup and shutdown periods.	0.05	LB/MM BTU / HEATER
12/4/2017	DANIA BEACH ENERGY CENTER	FL-0363	Two natural gas heaters	9.9	MMBtu/hr	Manufacturer certification	0.1	LB/MMBTU
1/26/2018	RENOVO ENERGY CENTER, LLC	*PA-0316	Water Bath Heater	15	MMBtu		0.01	LB
4/26/2018	C4GT, LLC	VA-0328	Dew Point Heater	140	MMCF/YR	Ultra Low NOx burners	0.8	T/YR
5/4/2018	NUCOR STEEL - BERKELEY	SC-0183	Galvanizing Line Equipment (galvanizing line 2 cleaning section heaters)	0		Use of Low NOX Burners and Good Combustion Practices	50	LB/MMSCF
7/10/2018	DRIFTWOOD LNG FACILITY	LA-0349	Hot Oil Heaters (5)	16.13	mm btu/hr	ULNB and Good Combustion Practices	0	
7/16/2018	BELLE RIVER COMBINED CYCLE POWER PLANT	MI-0435	EUFUELHTR1: Natural gas fired fuel heater	20.8	MMBTU/H	Low NOx burner	0.75	LB/H
7/16/2018	BELLE RIVER COMBINED CYCLE POWER PLANT	MI-0435	EUFUELHTR2: Natural gas fired fuel heater	3.8	MMBTU/H	Low NOx burner	0.14	LB/H
7/30/2018	CPV THREE RIVERS ENERGY CENTER	IL-0129	Fuel Heater	12.8	mmBtu/hr	Low-NOx burners	0.011	LB/MMBTU
8/24/2018	ARKEMA BEAUMONT PLANT	TX-0845	HEATERS	31	BTU/HR	LOW NOX BURNERS, CLEAN FUEL	0.04	LB/MMBTU
11/7/2018	BIG RIVER STEEL LLC	AR-0155	PREHEATER, GALVANIZING LINE SN-28	78.2	MMBTU/HR	SCR, LOW NOX BURNERS, AND COMBUSTION OF CLEAN FUEL AND GOOD COMBUSTION PRACTICES	0.035	LB/MMBTU
12/31/2018	JACKSON ENERGY CENTER	IL-0130	Fuel Heater	13	mmBtu/hour	Low-NOx combustion technology	0.011	LB/MMBTU
1/28/2019	GRAYMONT WESTERN LIME-EDEN	WI-0291	P05 Natural Gas Fired Line Heater	1.5	mmBTU/hr	Good Combustion Practices	0.1	LB/MMBTU
2/6/2019	PETMIN USA INCORPORATED	OH-0379	Ladle Preheaters (P002, P003 and P004)	15	MMBTU/H	Good combustion practices and the use of natural gas	2.12	LB/H
4/5/2019	BIG RIVER STEEL LLC	AR-0159	PREHEATERS, GALVANIZING LINE SN-28 and SN-29	0		SCR, LOW NOX BURNERS, AND COMBUSTION OF CLEAN FUEL AND GOOD COMBUSTION PRACTICES	0.035	LB/MMBTU
5/22/2019	MICHIGAN STATE UNIVERSITY	MI-0440	FGFUELHEATERS	25	MMBTU/H	Low NOx burners and good combustion practices.	0.05	LB/MMBTU
6/24/2019	CHICKAHOMINY POWER LLC	VA-0332	Three (3) Fuel Gas Heaters	103	MMCF/YR	: Low NOx burners	0.011	LBS/MMBTU
9/9/2019	EQUISTAR CHEMICALS CHANNELVIEW COMPLEX	TX-0865	Process Heaters	202	MMBtu/hr	SCR	5	PPMVD
9/9/2019	EQUISTAR CHEMICALS CHANNELVIEW COMPLEX	TX-0865	Process Heaters MSS	0		SCR	0.01	LB/MMBTU
9/27/2019	NORTHSTAR BLUESCOPE STEEL, LLC	OH-0381	Ladle Preheaters and Dryers (P021-023, P025-026)	16	MMBTU/H	Use of natural gas, good combustion practices and design	1.6	LB/H
9/27/2019	NORTHSTAR BLUESCOPE STEEL, LLC	OH-0381	Tundish Preheaters #3 and #4 (P028 and P029)	9.5	mmbtu/hr	Use of natural gas, good combustion practices and design	0.95	LB/H
9/27/2019	SUPERIOR REFINING COMPANY LLC	WI-0311	Vacuum Tower Process Heater (P21)	49.7	MMBTU/H	Use ultra-low NOx burners and good combustion practices	0.03	LB/MMBTU HEAT INPUT
11/26/2019	INDECK NILES, LLC	*MI-0445	FGFUELHTR (2 fuel pre-heaters)	27	MMBTU/H	Good combustion practices	1.32	LB/H
1/6/2020	FG LA COMPLEX	LA-0364	Hot Oil Heaters 1 and 2	0		LNB	0.06	LB/MMBTU

RBLC Entries for Nitrogen Oxides Control from Heaters

Date	Facility Name	RBLC ID	PROCESS NAME	THROUGHPUT	THROUGHPUT UNIT	Control Method	Limit No. 1	Unit
2/4/2020	PORT ARTHUR REFINERY	TX-0873	Isomar Charge Heater	220.4	MMBTU/H	The heater is equipped with ultra-low NOx burners and a SCR1. Fuel usage is monitored continuously and exiting emission are monitored via CEMS. Good combustion practices will be used to reduce emissions including maintain proper air-to-fuel ratio, necessary residence time, temperature and turbulence. Combustion of pipeline-quality natural gas.	0.035	LB/MMBTU
2/4/2020	PORT ARTHUR REFINERY	TX-0873	REFORMATE HEATER	353.4	MMBtu	The heater equipped with ultra-low NOx burners and a SCR. Fuel usage is monitored continuously and exiting emissions are monitored via CEMS.	0.035	LB/MMBTU
2/4/2020	PORT ARTHUR REFINERY	TX-0873	RAFFINATE HEATER	750	MMBTU/H	ULTRA LOW NOX BURNERS AND SCR. Good combustion practices will be used to reduce emissions including maintain proper air-to-fuel ratio, necessary residence time, temperature and turbulence. Combustion of pipeline-quality natural gas.	0.035	LB/MMBTU
2/4/2020	PORT ARTHUR REFINERY	TX-0873	STRIPPER HEATER	117.3	MMBTU/H	The heater is equipped with ultra-low NOx burners. Tier III cost analysis determined $140,596 per controlled. SCR is not considered economically feasible. No SCR equipped. Fuel usage is monitored continuously and exiting emission are monitored via CEMS.	0.035	LB/MMBTU
2/4/2020	PORT ARTHUR REFINERY	TX-0873	Less than 100 MMBtu/lb Fractionation Heaters	52.8	MMBTU/H	Less than 100 MMBtu/lb heaters equipped with ultra-low NOx burners. Fuel usage is monitored continuously.	0	
2/4/2020	PORT ARTHUR REFINERY	TX-0873	Heaters€™ SCR MSS and heaters€™ startup	0		MONITOR FUEL USAGE	0.1	LB/MMBTU
2/4/2020	PORT ARTHUR REFINERY	TX-0873	Greater than 100 MMBtu/lb Fractionation Heater	140.1	MMBTU/H	Maximum heating capacity greater than 100 MMBtu/hr and required to be equipped with ultra-low NOx burners. Tier III cost analysis determined $53,200 per controlled ton. SCR is not considered economically feasible. No SCR equipped. Good combustion practices will be used to reduce NOx including maintain proper air-to-fuel ratio, necessary residence time, temperature and turbulent. Fuel usage is monitored continuously and exiting emission are monitored via CEMS.	0.035	LB/MMBTU
2/4/2020	PORT ARTHUR REFINERY	TX-0873	Less than 100 MMBtu/lb Hydrotreating Heaters	94.1	MMBTU/H	LOW NOT BURNERS. MONITOR FUEL USAGE. Good combustion practices will be used to reduce emissions including maintain proper air-to-fuel ratio, necessary residence time, temperature and turbulent.	0.035	LB/MMBTU
2/4/2020	PORT ARTHUR REFINERY	TX-0873	Heater€™s SCR MSS	0		monitor fuel use continuously	0.1	LB/MMBTU
2/4/2020	PORT ARTHUR REFINERY	TX-0874	Fractionation Heaters with less than 100 MMBtu/hr heating capacity	46.7	MMBTU/H	Less than 100 MMBtu/lb heaters equipped with ultra-low NOx burners. Fuel usage is monitored continuously.	0.024	LB/MMBTU
4/23/2020	ORANGE POLYETHYLENE PLANT	TX-0888	Heaters	100	MMBtu	Low NOx burners and good combustion practice.	0.04	LB/MMBTU
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 15-01 - Natural Gas Direct-Fired Space Heaters, Process Water Heaters, & Air Makeup Heaters	40	MMBtu/hr, combined	Low-Nox Burner (Designed to maintain 0.07 lb/MMBtu); and a Good Combustion and Operating Practices (GCOP) Plan.	70	LB/MMSCF
8/13/2020	GAS TREATMENT PLANT	AK-0085	Two (2) Buyback Gas Bath Heaters and Three (3) Operations Camp Heaters	32	MMBtu/hr	Low NOx Burners, Good Combustion Practices, Limited Operation of 500 hours per year per heater.	0.036	LB/MMBTU
8/20/2020	WPL- RIVERSIDE ENERGY CENTER	WI-0299	Natural Gas-Fired Space and Unit Heater (P30)	15.5	MMBTU/H	Only use natural gas in each heater.	0.098	LB/MMBTU
9/1/2020	NEMADJI TRAIL ENERGY CENTER	WI-0300	Natural Gas-Fired Heater (P04)	10	MMBTU/H	Low-NOx burners, only use pipeline quality natural gas, maintain and operate according to manufacturer€™s recommendations.	0.049	LB/MMBTU
9/1/2020	NEMADJI TRAIL ENERGY CENTER	WI-0300	Natural Gas-Fired Heater (P05)	10	MMBTU/H	Low-NOx burners, only combust pipeline quality natural gas, and operate and maintain the heater according to the manufacturer€™s recommendations.	0.049	LB/MMBTU
12/18/2020	GRAYLING PARTICLEBOARD	MI-0448	Thermal oil heater (EUTOH in FGTOH)	38	MMBTU/H	Good design and combustion practices, low NOx burners	0.05	LB/MMBTU
1/21/2021	BORGER REFINERY	TX-0914	CCR Charge and Inter-stage Heaters	0		low NOX burners and SCR	0.015	LB/MMBTU
1/21/2021	BORGER REFINERY	TX-0914	Crude charge heaters	0		low NOX burners and SCR	0.015	LB/MMBTU
4/19/2021	NUCOR STEEL GALLATIN, LLC	KY-0115	Galvanizing Line #2 Alkali Cleaning Section Heater (EP 21-07B)	23	MMBtu/hr	The permittee must develop a Good Combustion and Operating Practices (GCOP) Plan. This unit is also required to be equipped with low-NOx burners (0.07 lb/MMBtu).	50	LB/MMSCF
4/19/2021	NUCOR STEEL GALLATIN, LLC	KY-0115	Galvanizing Line #2 Zinc Pot Preheater (EP 21-09)	3	MMBtu/hr	The permittee must develop a Good Combustion and Operating Practices (GCOP) Plan. This unit is equipped with a low-NOx burner.	70	LB/MMSCF
8/27/2021	NEWMAN POWER STATION	TX-0908	LINE HEATER	0		Low NOx burner, pipeline natural gas and goo combustion practices.	0.03	LB/MMBTU
9/21/2021	COLBERT COMBUSTION TURBINE PLANT	AL-0329	Three Gas Heaters	10	MMBtu/hr		0.011	LB/MMBTU
10/19/2021	CENTURION BROWNSVILLE	TX-0930	Heaters and Boiler with Firing Rates Greater than or Equal to 100 MMBtu/hr	0		Low NOx burners with selective catalytic reduction (SCR). CEMS required.	0.015	LB/MMBTU
10/19/2021	CENTURION BROWNSVILLE	TX-0930	Heaters and Boiler with Firing Rates Less than 100 MMBtu/hr	0		LOW NOX BURNERS	0.015	LB/MMBTU
11/17/2021	NACERO PENWELL FACILITY	TX-0933	Fired Process Heaters	0		low NOX burners and SCR	0.015	LB/MMBTU
11/17/2021	NACERO PENWELL FACILITY	TX-0933	Fired Steam Superheaters	0		low NOX burners and SCR	0.015	LB/MMBTU
11/17/2021	NACERO PENWELL FACILITY	TX-0933	Gasoline Loop SU Heaters	0		low NOX burners	0.03	LB/MMBTU
11/17/2021	NACERO PENWELL FACILITY	TX-0933	Regeneration Heaters	0		low NOx burners	0.03	LB/MMBTU
11/17/2021	NACERO PENWELL FACILITY	TX-0933	Isomerization Heaters	0		low NOx burners	0.03	LB/MMBTU

RBLC Entries for Nitrogen Oxides Control from Heaters

Date	Facility Name	RBLC ID	PROCESS NAME	THROUGHPUT	THROUGHPUT UNIT	Control Method	Limit No. 1	Unit
11/17/2021	NACERO PENWELL FACILITY	TX-0933	Hydrocracker Heaters	0		low NOx burners	0.03	LB/MMBTU
5/6/2022	MIDWEST FERTILIZER COMPANY LLC	IN-0324	startup heater EU-002	33.34	MMBtu/hr	shall combust natural gas, shall be controlled by good combustion practices	200	HR/YR
3/14/2023	INEOS OLIGOMERS CHOCOLATE BAYOU	TX-0955	HOT OIL HEATER	0		Burner design for good combustion efficiency and to minimize NOx formation with a SCR system to further reduce NOx.	0.014	LB/MMBTU
3/14/2023	INEOS OLIGOMERS CHOCOLATE BAYOU	TX-0955	HEATER NO 2	0		Burner design for good combustion efficiency and to minimize NOx formation.	0.01	LB/MMBTU
9/19/2023	CAMERON LNG FACILITY	LA-0398	Hot Oil Heaters (EQT0111, EQT0112, EQT0113)	90	mm btu/hr	Ultra-low NOx burners	0.01	LB/MM BTU
9/19/2023	NEMADJI TRAIL ENERGY CENTER	*WI-0326	Heaters: S04/P04 and S05/P05	10	MMBtu/hr	(a) P04 and P05 shall be equipped with low-NOx burners. (b) Only pipeline quality natural gas may be combusted in P04 and P05. (c) The permittee shall operate and maintain P04 and P05 according to the manufacturer€™s recommendations. (d) The permittee shall tune within 120 days of the initial operation, and within 24-months of each preceding tune-up. (e) NOx emissions from P04 and P05 may not exceed 0.049 lb/MMBtu each.	0.049	LB/MMBTU
10/5/2023	NEDERLAND FACILITY	TX-0964	HEATERS	0		LOW NOX BURNERS	9	PPMVD
12/21/2023	CRONUS CHEMICALS	IL-0134	Startup Heater	47.7	mmBtu/hr	LNB, good burner design, and GCP	0.07	LB/MMBTU
1/11/2024	WABASH VALLEY RESOURCES, LLC	IN-0371	Dewpoint Heater	1.44	MMBtu/hr	Low NOx burners and good combustion practices	50	LB/MMSCF
3/31/2025	SYCAMORE RIVERSIDE ENERGY LLC	IN-0384	Dew Point Heater	20	MMBtu/hr	GOOD COMBUSTION PRACTICES AND LOW NOx BURNERS	50	LB

RBLC Entries for Carbon Monoxide Control from Heaters

Date	Facility Name	RBLC ID	PROCESS NAME	THROUGHPUT	THROUGHPUT UNIT	Control Method	Limit No. 1	Unit
2/2/2015	INDECK WHARTON ENERGY CENTER	TX-0694	heater	3	MMBTU/H		0.04	LB/MMBTU
4/1/2015	PEONY CHEMICAL MANUFACTURING FACILITY	TX-0728	Ammonia Start-Up Heater	8100	MMBtu/yr	limited hours of operation	1.96	LB/H
5/21/2015	RAMSEY GAS PLANT	TX-0755	Hot Oil Heaters and Regeneration Heaters	60	MMBTU/H	Good combustion practices and firing of residue gas with low carbon content	50	PPMVD @ 3% O2
7/10/2015	PROPANE DEHYDROGENATION UNIT	TX-0754	Heaters	695	MMBTU/H	good combustion practices	50	PPMVD @ 3% O2
9/1/2015	MOXIE FREEDOM GENERATION PLANT	PA-0311	Fuel Gas Heater	0			0.037	LB/MMBTU
10/23/2015	ORIENTED STRANDBOARD (OSB) MILL	TX-0770	Standby Thermal Oil Heater (TO-2)	60	MMBTU/H	Good combustion practices with clean burning fuel and limited operating hours	1.78	T/YR
1/19/2016	CMC STEEL OKLAHOMA	OK-0173	Heaters (Gas-Fired)	0		Natural Gas Fuel.	0.084	LB/MMBTU
2/15/2016	WISCONSIN POWER & LIGHT - NEENAH GENERATING STATION	WI-0263	Natural gas-fired glycol heaters (processes P03 and P04)	4.05	mmBtu/hr	Good combustion practices and use natural gas	0.08	LB/MMBTU
2/15/2016	WPSC - WEST MARINETTE	WI-0264	Natural gas-fired pipeline heater (process P14)	3.5	mmBtu/hr	Good combustion practices, only fire pipeline quality natural gas	0.08	LB/MMBTU
3/21/2016	MAGNOLIA LNG FACILITY	LA-0307	Regenerative Heaters	7.37	mm btu/hr	good combustion practices	0	
3/31/2016	MID-KANSAS ELECTRIC COMPANY, LLC - RUBART STATION	KS-0030	Indirect fuel-gas heater	2	mmBTU/hr		0.16	LB/H
8/26/2016	GRAYLING PARTICLEBOARD	MI-0421	EUTOH (In FGTOH)--Thermal Oil Heater	34	MMBTU/H	Good design and operation	0.082	LB/MMBTU
9/2/2016	CPV FAIRVIEW ENERGY CENTER	PA-0310	Dew point heater 13.8	0			0.08	LB/MMBTU
9/2/2016	CPV FAIRVIEW ENERGY CENTER	PA-0310	Dew point heater 3.2	3.2	MMBtu/hr		0.08	LB/MMBTU
12/5/2016	HOLLAND BOARD OF PUBLIC WORKS - EAST 5TH STREET	MI-0424	EUFUELHTR (Fuel pre-heater)	3.7	MMBTU/H	Good combustion practices.	0.41	LB/H
12/20/2016	TOPCHEM POLLOCK, LLC	*LA-0306	Ammonia Converter Start-up Heater Stack SUH-16-1 (EQT030)	20	MM BTU/hr	Use of pipeline quality natural gas and good combustion practices	1.96	LB/H
1/4/2017	INDECK NILES, LLC	MI-0423	FGFUELHTR (Two fuel pre-heaters identified as EUFUELHTR1 & EUFUELHTR2)	27	MMBTU/H	Good combustion practices.	2.22	LB/H
3/23/2017	MIDWEST FERTILIZER COMPANY LLC	IN-0263	STARTUP HEATER EU-002	70	MMBTU/HR	GOOD COMBUSTION PRACTICES	2.556	LB/H
4/19/2017	PALLAS NITROGEN LLC	OH-0368	Startup Heater (B001)	100	MMBTU/H	good combustion control (i.e., high temperatures, sufficient excess air, sufficient residence times, and god air/fuel mixing)	8.24	LB/H
8/2/2017	WHITING CLEAN ENERGY, INC.	IN-0285	Space Heaters	0			0.038	LB/MMBTU
10/23/2017	GUERNSEY POWER STATION LLC	OH-0374	Fuel Gas Heaters (2 identical, P007 and P008)	15	MMBTU/H	Combustion control	0.83	LB/H
10/31/2017	FIBER INDUSTRIES LLC	SC-0182	Process Heaters	0		Use of clean fuel, and Good Combustion Practices to ensure complete combustion, and efficient heater designs. Slowly increase/decrease firing rate while maintaining a minimum of 3% O2 in stack gas, monitor opacity, minimize the heater startup and shutdown periods.	0.04	LB/MM BTU / HEATER
4/26/2018	C4GT, LLC	VA-0328	Dew Point Heater	140	MMCF/YR	good combustion practices	2.6	T/YR
5/4/2018	NUCOR STEEL - BERKELEY	SC-0183	Galvanizing Line Equipment (galvanizing line 2 cleaning section heaters)	0		Good Combustion Practices	84	LB/MMSCF
6/25/2018	WAUPACA FOUNDRY, INC. PLANT 5	IN-0288	P51A, P54A, P51B, Hot Water Heater	33.65	mmBTU/hr		84	LB/MILLION FT3
7/10/2018	DRIFTWOOD LNG FACILITY	LA-0349	Hot Oil Heaters (5)	16.13	mm btu/hr	Good Combustion Practices	0	
7/16/2018	BELLE RIVER COMBINED CYCLE POWER PLANT	MI-0435	EUFUELHTR1: Natural gas fired fuel heater	20.8	MMBTU/H	Good combustion controls.	0.77	LB/H
7/16/2018	BELLE RIVER COMBINED CYCLE POWER PLANT	MI-0435	EUFUELHTR2: Natural gas fired fuel heater	3.8	MMBTU/H	Good combustion controls	0.14	LB/H
7/30/2018	CPV THREE RIVERS ENERGY CENTER	IL-0129	Fuel Heater	12.8	mmBtu/hr	Good combustion practice	0.08	LB/HR
11/7/2018	BIG RIVER STEEL LLC	AR-0155	PREHEATER, GALVANIZING LINE SN-28	78.2	MMBTU/HR	COMBUSTION OF NATURAL GAS AND GOOD COMBUSTION PRACTICE	0.0824	LB/MMBTU
12/31/2018	JACKSON ENERGY CENTER	IL-0130	Fuel Heater	13	mmBtu/hour	Good combustion practice	0.08	LB/MMBTU
1/28/2019	GRAYMONT WESTERN LIME-EDEN	WI-0291	P05 Natural Gas Fired Line Heater	1.5	mmBTU/hr	Good Combustion Practices	0.082	LB/MMBTU
4/5/2019	BIG RIVER STEEL LLC	AR-0159	PREHEATERS, GALVANIZING LINE SN-28 and SN-29	0		COMBUSTION OF NATURAL GAS AND GOOD COMBUSTION PRACTICE	0.0824	LB/MMBTU
5/22/2019	MICHIGAN STATE UNIVERSITY	MI-0440	FGFUELHEATERS	25	MMBTU/H	Good combustion practices.	0.08	LB/MMBTU
6/24/2019	CHICKAHOMINY POWER LLC	VA-0332	Three (3) Fuel Gas Heaters	103	MMCF/YR	good combustion practices, operator training, and proper emissions unit design, construction and maintenance.	0.037	LB/MMBTU
9/9/2019	EQUISTAR CHEMICALS CHANNELVIEW COMPLEX	TX-0865	Process Heaters	202	MMBtu/hr	Good combustion practices and low-emitting gaseous fuel.	50	PPMV
9/27/2019	NORTHSTAR BLUESCOPE STEEL, LLC	OH-0381	Ladle Preheaters and Dryers (P021-023, P025-026)	16	MMBTU/H	Use of natural gas, good combustion practices and design	0.32	LB/H
9/27/2019	NORTHSTAR BLUESCOPE STEEL, LLC	OH-0381	Tundish Preheaters #3 and #4 (P028 and P029)	9.5	mmbtu/hr	Use of natural gas, good combustion practices and design	0.19	LB/H
9/27/2019	SUPERIOR REFINING COMPANY LLC	WI-0311	Vacuum Tower Process Heater (P21)	49.7	MMBTU/H	Use of ultra-low NOx burners and good combustion practices.	30	PPMVD, 3% O2
10/31/2019	CONDENSATE SPLITTER FACILITY	TX-0872	Heater MSS â€“ Fractionation Heaters	0		Limiting duration and frequency of MSS. 96 annual operating hours. 2 hours per event	300	PPMV
11/26/2019	INDECK NILES, LLC	*MI-0445	FGFUELHTR (2 fuel pre-heaters)	27	MMBTU/H	Good combustion practices	1.11	LB/H
1/6/2020	FG LA COMPLEX	LA-0364	Hot Oil Heaters 1 and 2	0		Good combustion practices and compliance with the applicable provisions of 40 CFR 63 Subpart DDDDD.	0.037	LB/MMBTU
2/4/2020	PORT ARTHUR REFINERY	TX-0873	Isomar Charge Heater	220.4	MMBTU/H	Good combustion practices will be used to reduce emissions including maintain proper air-to-fuel ratio, necessary residence time, temperature and turbulence. Combustion of pipeline-quality natural gas.	50	PPMV
2/4/2020	PORT ARTHUR REFINERY	TX-0873	REFORMATE HEATER	353.4	MMBtu	Good combustion practices will be used to reduce emissions including maintain proper air-to-fuel ratio, necessary residence time, temperature and turbulent.	50	PPMV
2/4/2020	PORT ARTHUR REFINERY	TX-0873	RAFFINATE HEATER	750	MMBTU/H	Good combustion practices will be used to reduce emissions including maintain proper air-to-fuel ratio, necessary residence time, temperature and turbulence. Combustion of pipeline-quality natural gas.	0	
2/4/2020	PORT ARTHUR REFINERY	TX-0873	STRIPPER HEATER	117.3	MMBTU/H	Good combustion practices will be used to reduce emissions including maintain proper air-to-fuel ratio, necessary residence time, temperature and turbulence. Combustion of pipeline-quality natural gas.	0	

RBLC Entries for Carbon Monoxide Control from Heaters

Date	Facility Name	RBLC ID	PROCESS NAME	THROUGHPUT	THROUGHPUT UNIT	Control Method	Limit No. 1	Unit
2/4/2020	PORT ARTHUR REFINERY	TX-0873	Less than 100 MMBtu/lb Fractionation Heaters	52.8	MMBTU/H	Good combustion practices will be used to reduce emissions including maintain proper air-to-fuel ratio, necessary residence time, temperature and turbulence. Combustion of pipeline-quality natural gas.	50	PPMV
2/4/2020	PORT ARTHUR REFINERY	TX-0873	Greater than 100 MMBtu/lb Fractionation Heater	140.1	MMBTU/H	Good combustion practices will be used to reduce emissions including maintain proper air-to-fuel ratio, necessary residence time, temperature and turbulence	0	
2/4/2020	PORT ARTHUR REFINERY	TX-0873	Less than 100 MMBtu/lb Hydrotreating Heaters	94.1	MMBTU/H	Good combustion practices will be used to reduce emissions including maintain proper air-to-fuel ratio, necessary residence time, temperature and turbulent.	50	PPMV
2/4/2020	PORT ARTHUR REFINERY	TX-0874	Fractionation Heaters with less than 100 MMBtu/hr heating capacity	46.7	MMBTU/H	Good combustion practices will be used to reduce CO including maintain proper air-to-fuel ratio, necessary residence time, temperature and turbulent. Use of natural pipeline gas or refinery fuel with sulfur concentration below 0.1 grains dry standard cubic feet.	50	PPMV
4/23/2020	ORANGE POLYETHYLENE PLANT	TX-0888	Heaters	100	MMBtu	Good combustion practice and proper design.	50	PPMVD
7/17/2020	PETMIN USA INCORPORATED	OH-0383	Ladle Preheaters (P002, P003 and P004)	15	MMBTU/H	Good combustion practices and the use of natural gas	0.521	LB/H
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 15-01 - Natural Gas Direct-Fired Space Heaters, Process Water Heaters, & Air Makeup Heaters	40	MMBtu/hr, combined	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	84	LB/MMSCF
8/8/2020	SWEENY OLD OCEAN FACILITIES	TX-0889	Catalyst Activator Heaters	6	MMBTU/HR	Good combustion practices	0.082	LB/MMBTU
8/13/2020	GAS TREATMENT PLANT	AK-0085	Two (2) Buyback Gas Bath Heaters and Three (3) Operations Camp Heaters	32	MMBtu/hr	Good Combustion Practices, Clean Fuels, and Limited Operation of 500 hours per year per heater.	0.087	LB/MMBTU
8/20/2020	WPL- RIVERSIDE ENERGY CENTER	WI-0299	Natural Gas-Fired Space and Unit Heater (P30)	15.5	MMBTU/H	Only combust natural gas in each heater.	0.082	LB/MMBTU
9/1/2020	NEMADJI TRAIL ENERGY CENTER	WI-0300	Natural Gas-Fired Heater (P04)	10	MMBTU/H	Only combust pipeline quality natural gas and operate and maintain the process according to manufacturer€™s recommendations.	0.08	LB/MMBTU
9/1/2020	NEMADJI TRAIL ENERGY CENTER	WI-0300	Natural Gas-Fired Heater (P05)	10	MMBTU/H	Only combust pipeline quality natural gas and operate and maintain heater according to the manufacturer€™s recommendations.	0.08	LB/MMBTU
12/18/2020	GRAYLING PARTICLEBOARD	MI-0448	Thermal oil heater (EUTOH in FGTOH)	38	MMBTU/H	Good design and operation	0.082	LB/MMBTU
1/21/2021	BORGER REFINERY	TX-0914	CCR Charge and Inter-stage Heaters	0		GOOD COMBUSTION PRACTICES	100	PPMVD
1/21/2021	BORGER REFINERY	TX-0914	Crude charge heaters	0		GOOD COMBUSTION PRACTICES	100	PPMVD
4/19/2021	NUCOR STEEL GALLATIN, LLC	KY-0115	Galvanizing Line #2 Alkali Cleaning Section Heater (EP 21-07B)	23	MMBtu/hr	The permittee must develop a Good Combustion and Operating Practices (GCOP) Plan	84	LB/MMSCF
4/19/2021	NUCOR STEEL GALLATIN, LLC	KY-0115	Galvanizing Line #2 Zinc Pot Preheater (EP 21-09)	3	MMBtu/hr	The permittee must develop a Good Combustion and Operating Practices (GCOP) Plan	84	LB/MMSCF
8/27/2021	NEWMAN POWER STATION	TX-0908	LINE HEATER	0		Good combustions practices and pipeline natural gas	50	PPMVD
9/21/2021	COLBERT COMBUSTION TURBINE PLANT	AL-0329	Three Gas Heaters	10	MMBtu/hr		0.08	LB/MMBTU
10/19/2021	CENTURION BROWNSVILLE	TX-0930	Heaters and Boiler with Firing Rates Greater than or Equal to 100 MMBtu/hr	0		Good combustion practices, including maintaining proper air-to-fuel ratio and necessary residence time, temperature, and turbulence. CEMS required.	50	PPMVD
10/19/2021	CENTURION BROWNSVILLE	TX-0930	Heaters and Boiler with Firing Rates Less than 100 MMBtu/hr	0		Use of natural pipeline gas or refinery fuel gas. Good combustion practices, including maintaining proper air-to-fuel ratio and necessary residence time, temperature, and turbulence.	50	PPMVD
11/17/2021	NACERO PENWELL FACILITY	TX-0933	Fired Process Heaters	0		good combustion practices and the use of gaseous fuel	50	PPMVD
11/17/2021	NACERO PENWELL FACILITY	TX-0933	Fired Steam Superheaters	0		good combustion practices and the use of gaseous fuel	50	PPMVD
11/17/2021	NACERO PENWELL FACILITY	TX-0933	Gasoline Loop SU Heaters	0		good combustion practices and the use of gaseous fuel	50	PPMVD
11/17/2021	NACERO PENWELL FACILITY	TX-0933	Regeneration Heaters	0		good combustion practices and the use of gaseous fuel	50	PPMVD
11/17/2021	NACERO PENWELL FACILITY	TX-0933	Isomerization Heaters	0		good combustion practices and the use of gaseous fuel	50	PPMVD
11/17/2021	NACERO PENWELL FACILITY	TX-0933	Hydrocracker Heaters	0		good combustion practices and the use of gaseous fuel	50	PPMVD
3/10/2022	WISCONSIN PUBLIC SERVICE CORPORATION-WESTON PLANT	WI-0314	Space and Water Heaters (P113)	3	MMBTU/H	Use of good combustion practices and use of pipeline quality natural gas.	0.084	LB/MMBTU
5/6/2022	MIDWEST FERTILIZER COMPANY LLC	IN-0324	startup heater EU-002	33.34	MMBtu/hr	shall combust natural gas, shall be controlled by good combustion practices	200	HR/YR
3/13/2023	ORANGE COUNTY ADVANCED POWER STATION	TX-0939	Water Bath Heater	16.8	MMBTU/HR	Good combustion practices	50	PPMVD
9/19/2023	CAMERON LNG FACILITY	LA-0398	Hot Oil Heaters (EQT0111, EQT0112, EQT0113)	90	mm btu/hr	Proper burner design and operations Good combustion practices Compliance with 40 CFR 63 Subpart DDDDD	0.037	LB/MM BTU
9/19/2023	NEMADJI TRAIL ENERGY CENTER	*WI-0326	Heaters: S04/P04 and S05/P05	10	MMBtu/hr	(a) The permittee shall operate and maintain according to the manufacturer€™s recommendations. (b) The permittee shall tune within 120 days of the initial operation, and within 24-months of each preceding tune-up. (c) CO emissions may not exceed 0.08 lb/MMBtu. (d) The permittee may only combust pipeline quality natural gas.	0.08	LB/MMBTU
10/5/2023	NEDERLAND FACILITY	TX-0964	HEATERS	0		Good combustion practices and fire hydrogen€rich plant fuel gas	50	PPMVD
12/21/2023	CRONUS CHEMICALS	IL-0134	Startup Heater	47.7	mmBtu/hr	GCP and good burner design	0.0194	LB/MMBTU
2/14/2025	DUKE ENERGY INDIANA, INC.- CAYUGA GENERATING STATION	IN-0382	Turbine Fuel Heaters	10	MMBtu/hr	good combustion practices	0.08	LB/MMBTU
3/31/2025	SYCAMORE RIVERSIDE ENERGY LLC	IN-0384	Dew Point Heater	20	MMBtu/hr	GOOD COMBUSTION PRACTICES	84	LB

RBLC Entries for PM_{10} Control from Heaters

Date	Facility Name	RBLC ID	PROCESS NAME	THROUGHPUT	THROUGHPUT UNIT	Control Method	Limit No. 1	Unit
3/18/2015	CAROLINA PARTICLEBOARD	SC-0179	THERMAL OIL HEATER #2	1.83	MMBTU/H	USE OF NATURAL GAS AND GOOD COMBUSTION PRACTICES	0.01	LB/H
9/1/2015	MOXIE FREEDOM GENERATION PLANT	PA-0311	Fuel Gas Heater	0			0.007	LB/MMBTU
12/14/2015	CHS MCPHERSON REFINERY, INC.	KS-0032	Process heaters	0			0.008	LB/MMBTU
1/19/2016	CMC STEEL OKLAHOMA	OK-0173	Heaters (Gas-Fired)	0		Natural Gas Fuel.	0.0076	LB/MMBTU
2/15/2016	WISCONSIN POWER & LIGHT - NEENAH GENERATING STATION	WI-0263	Natural gas-fired glycol heaters (processes P03 and P04)	4.05	mmBtu/hr	Good combustion practices and use natural gas	0.008	LB/MMBTU
2/15/2016	WPSC - WEST MARINETTE	WI-0264	Natural gas-fired pipeline heater (process P14)	3.5	mmBtu/hr	Good combustion practices and use pipeline quality natural gas	0.008	LB/MMBTU
3/21/2016	MAGNOLIA LNG FACILITY	LA-0307	Regenerative Heaters	7.37	mm btu/hr	good combustion practices	0	
3/31/2016	MID-KANSAS ELECTRIC COMPANY, LLC - RUBART STATION	KS-0030	Indirect fuel-gas heater	2	mmBTU/hr		0.015	LB/H
8/26/2016	GRAYLING PARTICLEBOARD	MI-0421	EUTOH (In FGTOH)--Thermal Oil Heater	34	MMBTU/H	Good combustion practices.	0.0005	LB/MMBTU
9/27/2016	INVENERGY NELSON EXPANSION LLC	IL-0121	Fuel Heater	15	mmbtu/hr		0.105	LB/HR
12/5/2016	HOLLAND BOARD OF PUBLIC WORKS - EAST 5TH STREET	MI-0424	EUFUELHTR (Fuel pre-heater)	3.7	MMBTU/H	Good combustion practices.	0.0075	LB/MMBTU
1/4/2017	INDECK NILES, LLC	MI-0423	FGFUELHTR (Two fuel pre-heaters identified as EUFUELHTR1 & EUFUELHTR2)	27	MMBTU/H	Good combustion practices.	0.2	LB/H
3/23/2017	MIDWEST FERTILIZER COMPANY LLC	IN-0263	STARTUP HEATER EU-002	70	MMBTU/HR	GOOD COMBUSTION PRACTICES	0.522	LB/H
4/19/2017	PALLAS NITROGEN LLC	OH-0368	Startup Heater (B001)	100	MMBTU/H	Good combustion control (i.e., high temperatures, sufficient excess air, sufficient residence times, and god air/fuel mixing).	0.75	LB/H
10/23/2017	GUERNSEY POWER STATION LLC	OH-0374	Fuel Gas Heaters (2 identical, P007 and P008)	15	MMBTU/H	Combustion control	0.075	LB/H
10/31/2017	FIBER INDUSTRIES LLC	SC-0182	Process Heaters	0		Use of clean fuel, and Good Combustion Practices to ensure complete combustion, and efficient heater designs. Slowly increase/decrease firing rate while maintaining a minimum of 3% O2 in stack gas, monitor opacity, minimize the heater startup and shutdown periods.	0.0076	LB/MM BTU / HEATER
4/26/2018	C4GT, LLC	VA-0328	Dew Point Heater	140	MMCF/YR	Good combustion practices and the use of pipeline quality natural gas with a maximum sulfur content of 0.4 gr/100 scf on a 12 mo rolling av.	0.5	T/YR
5/4/2018	NUCOR STEEL - BERKELEY	SC-0183	Galvanizing Line Equipment (galvanizing line 2 cleaning section heaters)	0		Good combustion practices	7.6	LB/MMSCF
7/10/2018	DRIFTWOOD LNG FACILITY	LA-0349	Hot Oil Heaters (5)	16.13	mm btu/hr	Good Combustion Practices and Use of low sulfur facility fuel gas	0.0075	LB/MM BTU
7/16/2018	BELLE RIVER COMBINED CYCLE POWER PLANT	MI-0435	EUFUELHTR1: Natural gas fired fuel heater	20.8	MMBTU/H	Low sulfur fuel	0.15	LB/H
7/16/2018	BELLE RIVER COMBINED CYCLE POWER PLANT	MI-0435	EUFUELHTR2: Natural gas fired fuel heater	3.8	MMBTU/H	Low sulfur fuel	0.03	LB/H
11/7/2018	BIG RIVER STEEL LLC	AR-0155	PREHEATER, GALVANIZING LINE SN-28	78.2	MMBTU/HR	COMBUSTION OF NATURAL GAS AND GOOD COMBUSTION PRACTICE	0.0012	LB/MMBTU
2/6/2019	PETMIN USA INCORPORATED	OH-0379	Ladle Preheaters (P002, P003 and P004)	15	MMBTU/H	Good combustion practices and the use of natural gas	0.112	LB/H
4/5/2019	BIG RIVER STEEL LLC	AR-0159	PREHEATERS, GALVANIZING LINE SN-28 and SN-29	0		COMBUSTION OF NATURAL GAS AND GOOD COMBUSTION PRACTICE	0.0012	LB/MMBTU
5/22/2019	MICHIGAN STATE UNIVERSITY	MI-0440	FGFUELHEATERS	25	MMBTU/H	Good combustion practices	0.008	LB/MMBTU
6/24/2019	CHICKAHOMINY POWER LLC	VA-0332	Three (3) Fuel Gas Heaters	103	MMCF/YR	Good combustion practices and the use of pipeline quality natural gas with a maximum sulfur content of 0.4 gr/100 scf on a 12-month rolling average.	0.4	T/YR
9/9/2019	EQUISTAR CHEMICALS CHANNELVIEW COMPLEX	TX-0865	Process Heaters	202	MMBtu/hr	Good combustion practices and low-emitting gaseous fuel.	0.007	LB/MMBTU
9/27/2019	NORTHSTAR BLUESCOPE STEEL, LLC	OH-0381	Ladle Preheaters and Dryers (P021-023, P025-026)	16	MMBTU/H	Use of natural gas, good combustion practices and design	0.05	LB/H
9/27/2019	NORTHSTAR BLUESCOPE STEEL, LLC	OH-0381	Tundish Preheaters #3 and #4 (P028 and P029)	9.5	mmbtu/hr	Use of natural gas, good combustion practices and design	0.03	LB/H
9/27/2019	SUPERIOR REFINING COMPANY LLC	WI-0311	Vacuum Tower Process Heater (P21)	49.7	MMBTU/H	Good combustion practices.	0.0075	LB/MMBTU HEAT INPUT
11/26/2019	INDECK NILES, LLC	*MI-0445	FGFUELHTR (2 fuel pre-heaters)	27	MMBTU/H	Good combustion practices	0.1	LB/H
1/6/2020	FG LA COMPLEX	LA-0364	Hot Oil Heaters 1 and 2	0		Use of pipeline quality natural gas or fuel gas and good combustion practices.	0.03	LB/H
2/4/2020	PORT ARTHUR REFINERY	TX-0873	Isomar Charge Heater	220.4	MMBTU/H	Good combustion practices will be used to reduce emissions including maintain proper air-to-fuel ratio, necessary residence time, temperature and turbulence. Combustion of pipeline-quality natural gas.	0	
2/4/2020	PORT ARTHUR REFINERY	TX-0873	REFORMATE HEATER	353.4	MMBtu	Good combustion practices will be used to reduce emissions including maintain proper air-to-fuel ratio, necessary residence time, temperature and turbulent.	0	
2/4/2020	PORT ARTHUR REFINERY	TX-0873	RAFFINATE HEATER	750	MMBTU/H	Good combustion practices will be used to reduce emissions including maintain proper air-to-fuel ratio, necessary residence time, temperature and turbulence. Combustion of pipeline-quality natural gas.	0	
2/4/2020	PORT ARTHUR REFINERY	TX-0873	STRIPPER HEATER	117.3	MMBTU/H	Good combustion practices will be used to reduce emissions including maintain proper air-to-fuel ratio, necessary residence time, temperature and turbulence. Combustion of pipeline-quality natural gas.	0	
2/4/2020	PORT ARTHUR REFINERY	TX-0873	Less than 100 MMBtu/lb Fractionation Heaters	52.8	MMBTU/H	Good combustion practices will be used to reduce emissions including maintain proper air-to-fuel ratio, necessary residence time, temperature and turbulence. Combustion of pipeline-quality natural gas.	0	
2/4/2020	PORT ARTHUR REFINERY	TX-0873	Greater than 100 MMBtu/lb Fractionation Heater	140.1	MMBTU/H	Good combustion practices will be used to reduce emissions including maintain proper air-to-fuel ratio, necessary residence time, temperature and turbulence	0	
2/4/2020	PORT ARTHUR REFINERY	TX-0873	Less than 100 MMBtu/lb Hydrotreating Heaters	94.1	MMBTU/H	Good combustion practices will be used to reduce emissions including maintain proper air-to-fuel ratio, necessary residence time, temperature and turbulent.	0	

RBLC Entries for PM_{10} Control from Heaters

Date	Facility Name	RBLC ID	PROCESS NAME	THROUGHPUT	THROUGHPUT UNIT	Control Method	Limit No. 1	Unit
2/4/2020	PORT ARTHUR REFINERY	TX-0874	Fractionation Heaters with less than 100 MMBtu/hr heating capacity	46.7	MMBTU/H	Good combustion practices will be used to reduce CO including maintain proper air-to-fuel ratio, necessary residence time, temperature and turbulent. Use of natural pipeline gas or refinery fuel with sulfur concentration below 0.1 grains dry standard cubic feet.	0	
4/23/2020	ORANGE POLYETHYLENE PLANT	TX-0888	Heaters	100	MMBtu	Good combustion practice, clean fuel, and proper design	0.0075	LB/MMBTU
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 15-01 - Natural Gas Direct-Fired Space Heaters, Process Water Heaters, & Air Makeup Heaters	40	MMBtu/hr, combined	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	7.6	LB/MMSCF
8/13/2020	GAS TREATMENT PLANT	AK-0085	Two (2) Buyback Gas Bath Heaters and Three (3) Operations Camp Heaters	32	MMBtu/hr	Good Combustion Practices, Clean Fuels, and Limited Operation of 500 hours per year per heater.	0.0079	LB/MMBTU
8/20/2020	WPL- RIVERSIDE ENERGY CENTER	WI-0299	Natural Gas-Fired Space and Unit Heater (P30)	15.5	MMBTU/H	Only combust natural gas in each heater.	0.0075	LB/MMBTU
9/1/2020	NEMADJI TRAIL ENERGY CENTER	WI-0300	Natural Gas-Fired Heater (P04)	10	MMBTU/H	Operate and maintain according to manufacturer€™s recommendations. Only combust pipeline quality natural gas.	0.01	LB/MMBTU
9/1/2020	NEMADJI TRAIL ENERGY CENTER	WI-0300	Natural Gas-Fired Heater (P05)	10	MMBTU/H	Operate and maintain heater according to the manufacturer€™s recommendations and only combust pipeline quality natural gas.	0.01	LB/MMBTU
12/18/2020	GRAYLING PARTICLEBOARD	MI-0448	Thermal oil heater (EUTOH in FGTOH)	38	MMBTU/H	Good combustion practices	0.0005	LB/MMBTU
1/21/2021	BORGER REFINERY	TX-0914	CCR Charge and Inter-stage Heaters	0		good combustion practices and firing either refinery fuel gas or pipeline quality sweet natural gas	0	
1/21/2021	BORGER REFINERY	TX-0914	Crude charge heaters	0		good combustion practices and firing either refinery fuel gas or pipeline quality sweet natural gas	0	
4/19/2021	NUCOR STEEL GALLATIN, LLC	KY-0115	Galvanizing Line #2 Alkali Cleaning Section Heater (EP 21-07B)	23	MMBtu/hr	The permittee must develop a Good Combustion and Operating Practices (GCOP) Plan	7.6	LB/MMSCF
4/19/2021	NUCOR STEEL GALLATIN, LLC	KY-0115	Galvanizing Line #2 Zinc Pot Preheater (EP 21-09)	3	MMBtu/hr	The permittee must develop a Good Combustion and Operating Practices (GCOP) Plan	7.6	LB/MMSCF
8/27/2021	NEWMAN POWER STATION	TX-0908	LINE HEATER	0		Good combustions practices and pipeline natural gas to limit opacity to 5%	0	
9/21/2021	COLBERT COMBUSTION TURBINE PLANT	AL-0329	Three Gas Heaters	10	MMBtu/hr		0.008	LB/MMBTU
10/19/2021	CENTURION BROWNSVILLE	TX-0930	Heaters and Boiler with Firing Rates Greater than or Equal to 100 MMBtu/hr	0		Use of natural pipeline gas or refinery fuel gas. Opacity not to exceed 5 percent over six minutes.	0.0089	LB/MMBTU
10/19/2021	CENTURION BROWNSVILLE	TX-0930	Heaters and Boiler with Firing Rates Less than 100 MMBtu/hr	0		Use of natural pipeline gas or refinery fuel gas. Opacity not to exceed 5 percent over six minutes.	0.0089	LB/MMBTU
11/17/2021	NACERO PENWELL FACILITY	TX-0933	Fired Process Heaters	0		good combustion practices and the use of gaseous fuel	0.0075	LB/MMBTU
11/17/2021	NACERO PENWELL FACILITY	TX-0933	Fired Steam Superheaters	0		good combustion practices and the use of gaseous fuel	0.0075	LB/MMBTU
11/17/2021	NACERO PENWELL FACILITY	TX-0933	Gasoline Loop SU Heaters	0		good combustion practices and the use of gaseous fuel	0.0075	LB/MMBTU
11/17/2021	NACERO PENWELL FACILITY	TX-0933	Regeneration Heaters	0		good combustion practices and the use of gaseous fuel	0.0075	LB/MMBTU
11/17/2021	NACERO PENWELL FACILITY	TX-0933	Isomerization Heaters	0		good combustion practices and the use of gaseous fuel	0.0075	LB/MMBTU
11/17/2021	NACERO PENWELL FACILITY	TX-0933	Hydrocracker Heaters	0		good combustion practices and the use of gaseous fuel	0.0075	LB/MMBTU
3/10/2022	WISCONSIN PUBLIC SERVICE CORPORATION-WESTON PLANT	WI-0314	Space and Water Heaters (P113)	3	MMBTU/H	Use of good combustion practices and use of pipeline quality natural gas.	0	
5/6/2022	MIDWEST FERTILIZER COMPANY LLC	IN-0324	startup heater EU-002	33.34	MMBtu/hr	shall combust natural gas, shall be controlled by good combustion practices	200	HR/YR
3/13/2023	ORANGE COUNTY ADVANCED POWER STATION	TX-0939	Water Bath Heater	16.8	MMBTU/HR	Good combustion practices	0.007	LB/MMBTU
9/19/2023	CAMERON LNG FACILITY	LA-0398	Hot Oil Heaters (EQT0111, EQT0112, EQT0113)	90	mm btu/hr	Proper burner design and operations Good combustion practices Compliance with 40 CFR 63 Subpart DDDDD Fueled by natural gas	0.0075	LB/MM BTU
10/5/2023	NEDERLAND FACILITY	TX-0964	HEATERS	0		Good combustion practices and fire hydrogen€rich plant fuel gas, 5% OPACITY	0	
12/21/2023	CRONUS CHEMICALS	IL-0134	Startup Heater	47.7	mmBtu/hr	GCP and good burner design	0.0024	LB/MMBTU
4/3/2024	USG CLOQUET	MN-0096	Space Heater (EQUI 161)	10	MMBtu/hr	Good combustion practices	7.6	LB/MMBTU
3/31/2025	SYCAMORE RIVERSIDE ENERGY LLC	IN-0384	Dew Point Heater	20	MMBtu/hr	GOOD COMBUSTION PRACTICES AND LOW SULFUR FUELS	0.0048	LB

RBLC Entries for $PM_{2.5}$ Control from Heaters

Date	Facility Name	RBLC ID	PROCESS NAME	THROUGHPUT	THROUGHPUT UNIT	Control Method	Limit No. 1	Unit
2/2/2015	INDECK WHARTON ENERGY CENTER	TX-0694	heater	3	MMBTU/H		0	
3/18/2015	CAROLINA PARTICLEBOARD	SC-0179	THERMAL OIL HEATER #2	1.83	MMBTU/H	NATURAL GAS USAGE AND GOOD COMBUSTION PRACTICES.	0.003	LB/H
4/1/2015	PEONY CHEMICAL MANUFACTURING FACILITY	TX-0728	Ammonia Start-Up Heater	8100	MMBtu/yr	use of gaseous fuel	0.4	LB/H
9/1/2015	MOXIE FREEDOM GENERATION PLANT	PA-0311	Fuel Gas Heater	0			0.007	LB/MMBTU
1/19/2016	CMC STEEL OKLAHOMA	OK-0173	Heaters (Gas-Fired)	0		Natural Gas Fuel.	0.0076	LB/MMBTU
2/15/2016	WISCONSIN POWER & LIGHT - NEENAH GENERATING STATION	WI-0263	Natural gas-fired glycol heaters (processes P03 and P04)	4.05	mmBtu/hr	Good combustion practices and use natural gas	0.008	LB/MMBTU
2/15/2016	WPSC - WEST MARINETTE	WI-0264	Natural gas-fired pipeline heater (process P14)	3.5	mmBtu/hr	Good combustion practices, only fire pipeline quality natural gas	0.008	LB/MMBTU
3/21/2016	MAGNOLIA LNG FACILITY	LA-0307	Regenerative Heaters	7.37	mm btu/hr	good combustion practices	0	
3/31/2016	MID-KANSAS ELECTRIC COMPANY, LLC - RUBART STATION	KS-0030	Indirect fuel-gas heater	2	mmBTU/hr		0.015	LB/H
8/26/2016	GRAYLING PARTICLEBOARD	MI-0421	EUTOH (In FGTOH)--Thermal Oil Heater	34	MMBTU/H	Good combustion practices.	0.0004	LB/MMBTU
9/27/2016	INVENERGY NELSON EXPANSION LLC	IL-0121	Fuel Heater	15	mmbtu/hr		0.105	LB/HR
12/5/2016	HOLLAND BOARD OF PUBLIC WORKS - EAST 5TH STREET	MI-0424	EUFUELHTR (Fuel pre-heater)	3.7	MMBTU/H	Good combustion practices.	0.0075	LB/MMBTU
12/20/2016	TOPCHEM POLLOCK, LLC	*LA-0306	Ammonia Converter Start-up Heater Stack SUH-16-1 (EQT030)	20	MM BTU/hr	Use of pipeline quality natural gas and good combustion practices	0.18	LB/H
1/4/2017	INDECK NILES, LLC	MI-0423	FGFUELHTR (Two fuel pre-heaters identified as EUFUELHTR1 & EUFUELHTR2)	27	MMBTU/H	Good combustion practices.	0.2	LB/H
3/23/2017	MIDWEST FERTILIZER COMPANY LLC	IN-0263	STARTUP HEATER EU-002	70	MMBTU/HR	GOOD COMBUSTION PRACTICES	0.522	LB/H
4/19/2017	PALLAS NITROGEN LLC	OH-0368	Startup Heater (B001)	100	MMBTU/H	Good combustion control (i.e., high temperatures, sufficient excess air, sufficient residence times, and god air/fuel mixing).	0.75	LB/H
10/23/2017	GUERNSEY POWER STATION LLC	OH-0374	Fuel Gas Heaters (2 identical, P007 and P008)	15	MMBTU/H	Combustion control	0.075	LB/H
10/31/2017	FIBER INDUSTRIES LLC	SC-0182	Process Heaters	0		Use of clean fuel, and Good Combustion Practices to ensure complete combustion, and efficient heater designs. Slowly increase/decrease firing rate while maintaining a minimum of 3% O2 in stack gas, monitor opacity, minimize the heater startup and shutdown periods.	0.0076	LB/MM BTU / HEATER
4/26/2018	C4GT, LLC	VA-0328	Dew Point Heater	140	MMCF/YR	Good combustion practices and the use of pipeline quality natural gas with a maximum sulfur content of 0.4 gr/100 scf on a 12 mo rolling av.	0.5	T/YR
5/4/2018	NUCOR STEEL - BERKELEY	SC-0183	Galvanizing Line Equipment (galvanizing line 2 cleaning section heaters)	0		Good combustion practices	7.6	LB/MMSCF
7/10/2018	DRIFTWOOD LNG FACILITY	LA-0349	Hot Oil Heaters (5)	16.13	mm btu/hr	Good Combustion Practices and Use of low sulfur facility fuel gas	0.0075	LB/MM BTU
7/16/2018	BELLE RIVER COMBINED CYCLE POWER PLANT	MI-0435	EUFUELHTR1: Natural gas fired fuel heater	20.8	MMBTU/H	Low sulfur fuel	0.15	LB/H
7/16/2018	BELLE RIVER COMBINED CYCLE POWER PLANT	MI-0435	EUFUELHTR2: Natural gas fired fuel heater	3.8	MMBTU/H	Low sulfur fuel	0.03	LB/H
11/7/2018	BIG RIVER STEEL LLC	AR-0155	PREHEATER, GALVANIZING LINE SN-28	78.2	MMBTU/HR	COMBUSTION OF NATURAL GAS AND GOOD COMBUSTION PRACTICE	0.0012	LB/MMBTU
2/6/2019	PETMIN USA INCORPORATED	OH-0379	Ladle Preheaters (P002, P003 and P004)	15	MMBTU/H	Good combustion practices and the use of natural gas	0.112	LB/H
4/5/2019	BIG RIVER STEEL LLC	AR-0159	PREHEATERS, GALVANIZING LINE SN-28 and SN-29	0		COMBUSTION OF NATURAL GAS AND GOOD COMBUSTION PRACTICE	0.0012	LB/MMBTU
5/22/2019	MICHIGAN STATE UNIVERSITY	MI-0440	FGFUELHEATERS	25	MMBTU/H	Good combustion practices	0.008	LB/MMBTU
6/24/2019	CHICKAHOMINY POWER LLC	VA-0332	Three (3) Fuel Gas Heaters	103	MMCF/YR	: Good combustion practices and the use of pipeline quality natural gas with a maximum sulfur content of 0.4 gr/100 scf on a 12-month rolling average.	0.5	T/YR (EACH)
9/9/2019	EQUISTAR CHEMICALS CHANNELVIEW COMPLEX	TX-0865	Process Heaters	202	MMBtu/hr	Good combustion practices and low-emitting gaseous fuel.	0.007	LB/MMBTU
9/27/2019	NORTHSTAR BLUESCOPE STEEL, LLC	OH-0381	Ladle Preheaters and Dryers (P021-023, P025-026)	16	MMBTU/H	Use of natural gas, good combustion practices and design	0.05	LB/H
9/27/2019	NORTHSTAR BLUESCOPE STEEL, LLC	OH-0381	Tundish Preheaters #3 and #4 (P028 and P029)	9.5	mmbtu/hr	Use of natural gas, good combustion practices and design	0.03	LB/H
9/27/2019	SUPERIOR REFINING COMPANY LLC	WI-0311	Vacuum Tower Process Heater (P21)	49.7	MMBTU/H	Good combustion practices.	0.0075	LB/MMBTU HEAT INPUT
11/26/2019	INDECK NILES, LLC	*MI-0445	FGFUELHTR (2 fuel pre-heaters)	27	MMBTU/H	Good combustion practices	0.1	LB/H
1/6/2020	FG LA COMPLEX	LA-0364	Hot Oil Heaters 1 and 2	0		Use of pipeline quality natural gas or fuel gas and good combustion practices.	0.03	LB/H
2/4/2020	PORT ARTHUR REFINERY	TX-0873	Isomar Charge Heater	220.4	MMBTU/H	Good combustion practices will be used to reduce emissions including maintain proper air-to-fuel ratio, necessary residence time, temperature and turbulence. Combustion of pipeline-quality natural gas.	0	
2/4/2020	PORT ARTHUR REFINERY	TX-0873	REFORMATE HEATER	353.4	MMBtu	Good combustion practices will be used to reduce emissions including maintain proper air-to-fuel ratio, necessary residence time, temperature and turbulent.	0	
2/4/2020	PORT ARTHUR REFINERY	TX-0873	RAFFINATE HEATER	750	MMBTU/H	Good combustion practices will be used to reduce emissions including maintain proper air-to-fuel ratio, necessary residence time, temperature and turbulence. Combustion of pipeline-quality natural gas.	0	
2/4/2020	PORT ARTHUR REFINERY	TX-0873	STRIPPER HEATER	117.3	MMBTU/H	Good combustion practices will be used to reduce emissions including maintain proper air-to-fuel ratio, necessary residence time, temperature and turbulence. Combustion of pipeline-quality natural gas.	0	
2/4/2020	PORT ARTHUR REFINERY	TX-0873	Less than 100 MMBtu/lb Fractionation Heaters	52.8	MMBTU/H	Good combustion practices will be used to reduce emissions including maintain proper air-to-fuel ratio, necessary residence time, temperature and turbulence. Combustion of pipeline-quality natural gas.	0	
2/4/2020	PORT ARTHUR REFINERY	TX-0873	Greater than 100 MMBtu/lb Fractionation Heater	140.1	MMBTU/H	Good combustion practices will be used to reduce emissions including maintain proper air-to-fuel ratio, necessary residence time, temperature and turbulence	0	
2/4/2020	PORT ARTHUR REFINERY	TX-0873	Less than 100 MMBtu/lb Hydrotreating Heaters	94.1	MMBTU/H	Good combustion practices will be used to reduce emissions including maintain proper air-to-fuel ratio, necessary residence time, temperature and turbulent.	0	

RBLC Entries for $PM_{2.5}$ Control from Heaters

Date	Facility Name	RBLC ID	PROCESS NAME	THROUGHPUT	THROUGHPUT UNIT	Control Method	Limit No. 1	Unit
2/4/2020	PORT ARTHUR REFINERY	TX-0874	Fractionation Heaters with less than 100 MMBtu/hr heating capacity	46.7	MMBTU/H	Good combustion practices will be used to reduce CO including maintain proper air-to-fuel ratio, necessary residence time, temperature and turbulent. Use of natural pipeline gas or refinery fuel with sulfur concentration below 0.1 grains dry standard cubic feet.	0	
4/23/2020	ORANGE POLYETHYLENE PLANT	TX-0888	Heaters	100	MMBtu	Good combustion practice, clean fuel, and proper design	0.0075	LB/MMBTU
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 15-01 - Natural Gas Direct-Fired Space Heaters, Process Water Heaters, & Air Makeup Heaters	40	MMBtu/hr, combined	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	7.6	LB/MMSCF
8/13/2020	GAS TREATMENT PLANT	AK-0085	Two (2) Buyback Gas Bath Heaters and Three (3) Operations Camp Heaters	32	MMBtu/hr	Good Combustion Practices, Clean Fuels, and Limited Operation of 500 hours per year per heater.	0.0079	LB/MMBTU
8/20/2020	WPL- RIVERSIDE ENERGY CENTER	WI-0299	Natural Gas-Fired Space and Unit Heater (P30)	15.5	MMBTU/H	Only combust natural gas in each heater.	0.0075	LB/MMBTU
9/1/2020	NEMADJI TRAIL ENERGY CENTER	WI-0300	Natural Gas-Fired Heater (P04)	10	MMBTU/H	Operate and maintain heater according to manufacturer€™s recommendations. Only combust pipeline quality natural gas.	0.01	LB/MMBTU
9/1/2020	NEMADJI TRAIL ENERGY CENTER	WI-0300	Natural Gas-Fired Heater (P05)	10	MMBTU/H	Operate and maintain heater according to the manufacturer€™s recommendations and only combust pipeline quality natural gas.	0.01	LB/MMBTU
12/18/2020	GRAYLING PARTICLEBOARD	MI-0448	Thermal oil heater (EUTOH in FGTOH)	38	MMBTU/H	Good combustion practices	0.0004	LB/MMBTU
1/21/2021	BORGER REFINERY	TX-0914	CCR Charge and Inter-stage Heaters	0		good combustion practices and firing either refinery fuel gas or pipeline quality sweet natural gas	0	
1/21/2021	BORGER REFINERY	TX-0914	Crude charge heaters	0		good combustion practices and firing either refinery fuel gas or pipeline quality sweet natural gas	0	
4/19/2021	NUCOR STEEL GALLATIN, LLC	KY-0115	Galvanizing Line #2 Alkali Cleaning Section Heater (EP 21-07B)	23	MMBtu/hr	The permittee must develop a Good Combustion and Operating Practices (GCOP) Plan	7.6	LB/MMSCF
4/19/2021	NUCOR STEEL GALLATIN, LLC	KY-0115	Galvanizing Line #2 Zinc Pot Preheater (EP 21-09)	3	MMBtu/hr	The permittee must develop a Good Combustion and Operating Practices (GCOP) Plan	7.6	LB/MMSCF
8/27/2021	NEWMAN POWER STATION	TX-0908	LINE HEATER	0		Good combustions practices and pipeline natural gas to limit opacity to 5%	0	
9/21/2021	COLBERT COMBUSTION TURBINE PLANT	AL-0329	Three Gas Heaters	10	MMBtu/hr		0.008	LB/MMBTU
10/19/2021	CENTURION BROWNSVILLE	TX-0930	Heaters and Boiler with Firing Rates Greater than or Equal to 100 MMBtu/hr	0		Use of natural pipeline gas or refinery fuel gas. Opacity not to exceed 5 percent over six minutes.	0.0089	LB/MMBTU
10/19/2021	CENTURION BROWNSVILLE	TX-0930	Heaters and Boiler with Firing Rates Less than 100 MMBtu/hr	0		Use of natural pipeline gas or refinery fuel gas. Opacity not to exceed 5 percent over six minutes.	0.0089	LB/MMBTU
11/17/2021	NACERO PENWELL FACILITY	TX-0933	Fired Process Heaters	0		good combustion practices and the use of gaseous fuel	0.0075	LB/MMBTU
11/17/2021	NACERO PENWELL FACILITY	TX-0933	Fired Steam Superheaters	0		good combustion practices and the use of gaseous fuel	0.0075	LB/MMBTU
11/17/2021	NACERO PENWELL FACILITY	TX-0933	Gasoline Loop SU Heaters	0		good combustion practices and the use of gaseous fuel	0.0075	LB/MMBTU
11/17/2021	NACERO PENWELL FACILITY	TX-0933	Regeneration Heaters	0		good combustion practices and the use of gaseous fuel	0.0075	LB/MMBTU
11/17/2021	NACERO PENWELL FACILITY	TX-0933	Isomerization Heaters	0		good combustion practices and the use of gaseous fuel	0.0075	LB/MMBTU
11/17/2021	NACERO PENWELL FACILITY	TX-0933	Hydrocracker Heaters	0		good combustion practices and the use of gaseous fuel	0.0075	LB/MMBTU
3/10/2022	WISCONSIN PUBLIC SERVICE CORPORATION-WESTON PLANT	WI-0314	Space and Water Heaters (P113)	3	MMBTU/H	Use of good combustion practices and use of pipeline quality natural gas.	0	
5/6/2022	MIDWEST FERTILIZER COMPANY LLC	IN-0324	startup heater EU-002	33.34	MMBtu/hr	shall combust natural gas, shall be controlled by good combustion practices	200	HR/YR
3/13/2023	ORANGE COUNTY ADVANCED POWER STATION	TX-0939	Water Bath Heater	16.8	MMBTU/HR	Good combustion practices	0.007	LB/MMBTU
9/19/2023	CAMERON LNG FACILITY	LA-0398	Hot Oil Heaters (EQT0111, EQT0112, EQT0113)	90	mm btu/hr	Proper burner design and operations Good combustion practices Compliance with 40 CFR 63 Subpart DDDDD Fueled by natural gas	0.0075	LB/MM BTU
12/21/2023	CRONUS CHEMICALS	IL-0134	Startup Heater	47.7	mmBtu/hr	GCP and good burner design	0.0024	LB/MMBTU
4/3/2024	USG CLOQUET	MN-0096	Space Heater (EQUI 161)	10	MMBtu/hr	Good combustion practices	7.6	LB/MMBTU
3/31/2025	SYCAMORE RIVERSIDE ENERGY LLC	IN-0384	Dew Point Heater	20	MMBtu/hr	GOOD COMBUSTION PRACTICES AND LOW SULFUR FUELS	0.0048	LB

RBLC Entries for Sulfur Dioxide Control from Heaters

Date	Facility Name	RBLC ID	PROCESS NAME	THROUGHPUT	THROUGHPUT UNIT	Control Method	Limit No. 1	Unit
4/1/2015	PEONY CHEMICAL MANUFACTURING FACILITY	TX-0728	Ammonia Start-Up Heater	8100	MMBtu/yr	limited hours of operation and low sulfur fuel	0.03	LB/H
7/10/2015	PROPANE DEHYDROGENATION UNIT	TX-0754	Heaters	695	MMBTU/H	use low sulfur fuel. Fuel total sulfur content will be less than or equal to 5 grains/100 dscf (hourly basis) and 0.2 grain total sulfur /100 dscf (annual basis)	5	GR/100 SCF
12/14/2015	CHS MCPHERSON REFINERY, INC.	KS-0032	Process heaters	0		BACT for sulfur dioxide is established by limiting the hydrogen sulfide (H2S) content of the refinery fuel gas. The H2S content of the fuel gas is measured on a continuous basis.	160	PPM
2/15/2016	WISCONSIN POWER & LIGHT - NEENAH GENERATING STATION	WI-0263	Natural gas-fired glycol heaters (processes P03 and P04)	4.05	mmBtu/hr	Use pipeline quality natural gas	0	
2/15/2016	WPSC - WEST MARINETTE	WI-0264	Natural gas-fired pipeline heater (process P14)	3.5	mmBtu/hr	Use pipeline quality natural gas	0	
3/9/2016	OKEECHOBEE CLEAN ENERGY CENTER	FL-0356	Two natural gas heaters	10	MMBtu/hr	Use of low-sulfur fuel	2	GR. S/100 SCF GAS
1/4/2017	INDECK NILES, LLC	MI-0423	FGFUELHTR (Two fuel pre-heaters identified as EUFUELHTR1 & EUFUELHTR2)	27	MMBTU/H	Good combustion practices and the use of pipeline quality natural gas.	2000	GR/MMSCF
10/23/2017	GUERNSEY POWER STATION LLC	OH-0374	Fuel Gas Heaters (2 identical, P007 and P008)	15	MMBTU/H	Pipeline natural gas fuel	0.023	LB/H
12/4/2017	DANIA BEACH ENERGY CENTER	FL-0363	Two natural gas heaters	9.9	MMBtu/hr	Clean fuel	2	GRAINS S / 100 SCF
4/26/2018	C4GT, LLC	VA-0328	Dew Point Heater	140	MMCF/YR	Pipeline quality natural gas with a maximum sulfur content of 0.4 gr/100 scf	0	
5/4/2018	NUCOR STEEL - BERKELEY	SC-0183	Galvanizing Line Equipment (galvanizing line 2 cleaning section heaters)	0		Good combustion practices	0.6	LB/MMSCF
7/10/2018	DRIFTWOOD LNG FACILITY	LA-0349	Hot Oil Heaters (5)	16.13	mm btu/hr	Good Combustion Practices and Use of low sulfur facility fuel gas	0	
8/24/2018	ARKEMA BEAUMONT PLANT	TX-0845	HEATERS	31	BTU/HR	low sulfur fuel and minimization of sulfur in waste through good operating practices	5	GR/100 DSCF
4/5/2019	BIG RIVER STEEL LLC	AR-0159	PREHEATERS, GALVANIZING LINE SN-28 and SN-29	0		COMBUSTION OF NATURAL GAS AND GOOD COMBUSTION PRACTICE	0.0006	LB/MMBTU
6/24/2019	CHICKAHOMINY POWER LLC	VA-0332	Three (3) Fuel Gas Heaters	103	MMCF/YR	Pipeline quality natural gas with a maximum sulfur content of 0.4 gr/100 scf	0	
9/27/2019	NORTHSTAR BLUESCOPE STEEL, LLC	OH-0381	Ladle Preheaters and Dryers (P021-023, P025-026)	16	MMBTU/H	Use of natural gas, good combustion practices and design	0.01	LB/H
9/27/2019	NORTHSTAR BLUESCOPE STEEL, LLC	OH-0381	Tundish Preheaters #3 and #4 (P028 and P029)	9.5	mmbtu/hr	Use of natural gas, good combustion practices and design	0.01	LB/H
9/27/2019	SUPERIOR REFINING COMPANY LLC	WI-0311	Vacuum Tower Process Heater (P21)	49.7	MMBTU/H	Use fuels with low hydrogen sulfide	1.33	LB/H
11/26/2019	INDECK NILES, LLC	*MI-0445	FGFUELHTR (2 fuel pre-heaters)	27	MMBTU/H	Good combustion practices and the use of pipeline quality natural gas.	2000	GR/MMSCF
2/4/2020	PORT ARTHUR REFINERY	TX-0873	Isomar Charge Heater	220.4	MMBTU/H	Good combustion practices will be used to reduce emissions including maintain proper air-to-fuel ratio, necessary residence time, temperature and turbulence. Combustion of pipeline-quality natural gas.	0	
2/4/2020	PORT ARTHUR REFINERY	TX-0873	REFORMATE HEATER	353.4	MMBtu	Good combustion practices will be used to reduce emissions including maintain proper air-to-fuel ratio, necessary residence time, temperature and turbulent. Use of natural gas.	0	
2/4/2020	PORT ARTHUR REFINERY	TX-0873	RAFFINATE HEATER	750	MMBTU/H	Good combustion practices will be used to reduce emissions including maintain proper air-to-fuel ratio, necessary residence time, temperature and turbulence. Combustion of pipeline-quality natural gas.	0	
2/4/2020	PORT ARTHUR REFINERY	TX-0873	STRIPPER HEATER	117.3	MMBTU/H	Good combustion practices will be used to reduce emissions including maintain proper air-to-fuel ratio, necessary residence time, temperature and turbulence. Combustion of pipeline-quality natural gas.	0	
2/4/2020	PORT ARTHUR REFINERY	TX-0873	Less than 100 MMBtu/lb Fractionation Heaters	52.8	MMBTU/H	Good combustion practices will be used to reduce emissions including maintain proper air-to-fuel ratio, necessary residence time, temperature and turbulence. Combustion of pipeline-quality natural gas.	0	
2/4/2020	PORT ARTHUR REFINERY	TX-0873	Heaters€™ SCR MSS and heaters€™ startup	0		MONITOR FUEL USAGE	162	PPMV
2/4/2020	PORT ARTHUR REFINERY	TX-0873	Greater than 100 MMBtu/lb Fractionation Heater	140.1	MMBTU/H	Good combustion practices will be used to reduce emissions including maintain proper air-to-fuel ratio, necessary residence time, temperature and turbulence	0	
2/4/2020	PORT ARTHUR REFINERY	TX-0873	Less than 100 MMBtu/lb Hydrotreating Heaters	94.1	MMBTU/H	Good combustion practices will be used to reduce emissions including maintain proper air-to-fuel ratio, necessary residence time, temperature and turbulent.	0	
2/4/2020	PORT ARTHUR REFINERY	TX-0874	Fractionation Heaters with less than 100 MMBtu/hr heating capacity	46.7	MMBTU/H	Good combustion practices will be used to reduce CO including maintain proper air-to-fuel ratio, necessary residence time, temperature and turbulent. Use of natural pipeline gas or refinery fuel with sulfur concentration below 0.1 grains dry standard cubic feet.	60	PPMV
4/23/2020	ORANGE POLYETHYLENE PLANT	TX-0888	Heaters	100	MMBtu	Good combustion practice, clean fuel, and proper design	2	GR/100 SCF
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 15-01 - Natural Gas Direct-Fired Space Heaters, Process Water Heaters, & Air Makeup Heaters	40	MMBtu/hr, combined	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	0.6	LB/MMSCF
8/13/2020	GAS TREATMENT PLANT	AK-0085	Two (2) Buyback Gas Bath Heaters and Three (3) Operations Camp Heaters	32	MMBtu/hr	Good Combustion Practices, Clean Fuels (NG), and Limited Operation of 500 hours per year per heater.	96	PPMV SULFUR IN FUEL
12/15/2020	FORMOSA POINT COMFORT PLANT	TX-0911	HEATER	0		GASEOUS CLEAN FUEL	0	
1/21/2021	BORGER REFINERY	TX-0914	CCR Charge and Inter-stage Heaters	0		SWEET NATURAL GAS FUEL	5	GR/DSCF
1/21/2021	BORGER REFINERY	TX-0914	Crude charge heaters	0		use of sweet natural gas	60	PPMVD H2S
4/19/2021	NUCOR STEEL GALLATIN, LLC	KY-0115	Galvanizing Line #2 Alkali Cleaning Section Heater (EP 21-07B)	23	MMBtu/hr	The permittee must develop a Good Combustion and Operating Practices (GCOP) Plan	0.6	LB/MMSCF
4/19/2021	NUCOR STEEL GALLATIN, LLC	KY-0115	Galvanizing Line #2 Zinc Pot Preheater (EP 21-09)	3	MMBtu/hr	The permittee must develop a Good Combustion and Operating Practices (GCOP) Plan	0.6	LB/MMSCF
8/27/2021	NEWMAN POWER STATION	TX-0908	LINE HEATER	0		Good combustions practices and pipeline natural gas. Fuel to contain less than 5 grains of sulfur per dscf	5	GR/DSCF
10/19/2021	CENTURION BROWNSVILLE	TX-0930	Heaters and Boiler with Firing Rates Greater than or Equal to 100 MMBtu/hr	0		Use of natural pipeline gas or refinery fuel gas with sulfur content not to exceed 0.20 grains per 100 dscf.	0.2	GR/DSCF

RBLC Entries for Sulfur Dioxide Control from Heaters

Date	Facility Name	RBLC ID	PROCESS NAME	THROUGHPUT	THROUGHPUT UNIT	Control Method	Limit No. 1	Unit
10/19/2021	CENTURION BROWNSVILLE	TX-0930	Heaters and Boiler with Firing Rates Less than 100 MMBtu/hr	0		Use of natural pipeline gas or refinery fuel gas with sulfur content not to exceed 0.20 grains per 100 dscf.	0	
11/17/2021	NACERO PENWELL FACILITY	TX-0933	Fired Process Heaters	0		good combustion practices and the use of low sulfur gaseous fuel	0	
11/17/2021	NACERO PENWELL FACILITY	TX-0933	Fired Steam Superheaters	0		Low sulfur content in fuel	5	GR/DSCF
11/17/2021	NACERO PENWELL FACILITY	TX-0933	Gasoline Loop SU Heaters	0		good combustion practices and the use of low sulfur gaseous fuel	0	
11/17/2021	NACERO PENWELL FACILITY	TX-0933	Regeneration Heaters	0		good combustion practices and the use of low sulphur gaseous fuel	5	GR/DSCF
11/17/2021	NACERO PENWELL FACILITY	TX-0933	Isomerization Heaters	0		good combustion practices and the use of gaseous fuel	0	
11/17/2021	NACERO PENWELL FACILITY	TX-0933	Hydrocracker Heaters	0		good combustion practices and the use of low sulfur gaseous fuel	0	

RBLC Entries for Volatile Organic Compounds Control from Heaters

Date	Facility Name	RBLC ID	PROCESS NAME	THROUGHPUT	THROUGHPUT UNIT	Control Method	Limit No. 1	Unit
1/8/2015	MIDWEST CITY AIR DEPOT	OK-0164	Heaters/Boilers	0	MMBTUH	1. Use pipeline-quality natural gas. 2. Good Combustion Practices w/emission rate limit of 0.005 lb/MMBTU based on AP-42 (7/1998).	7.1	TONS PER YEAR
3/18/2015	CAROLINA PARTICLEBOARD	SC-0179	THERMAL OIL HEATER #2	1.83	MMBTU/H	NATURAL GAS USAGE AND GOOD COMBUSTION PRACTICES.	0.01	LB/H
4/1/2015	PEONY CHEMICAL MANUFACTURING FACILITY	TX-0728	Ammonia Start-Up Heater	8100	MMBtu/yr	use of gaseous fuel	0.27	LB/H
9/1/2015	MOXIE FREEDOM GENERATION PLANT	PA-0311	Fuel Gas Heater	0			0.005	LB/MMBTU
12/14/2015	CHS MCPHERSON REFINERY, INC.	KS-0032	Process heaters	0			0.005	LB/MMBTU
1/19/2016	CMC STEEL OKLAHOMA	OK-0173	Heaters (Gas-Fired)	0		Natural Gas Fuel.	0.0055	LB/MMBTU
2/15/2016	WISCONSIN POWER & LIGHT - NEENAH GENERATING STATION	WI-0263	Natural gas-fired glycol heaters (processes P03 and P04)	4.05	mmBtu/hr	Good combustion practices and use natural gas	0.005	LB/MMBTU
3/21/2016	MAGNOLIA LNG FACILITY	LA-0307	Regenerative Heaters	7.37	mm btu/hr	good combustion practices	0	
3/31/2016	MID-KANSAS ELECTRIC COMPANY, LLC - RUBART STATION	KS-0030	Indirect fuel-gas heater	2	mmBTU/hr		0.011	LB/H
8/26/2016	GRAYLING PARTICLEBOARD	MI-0421	EUTOH (In FGTOH)--Thermal Oil Heater	34	MMBTU/H	Good design and operating/combustion practices.	0.0054	LB/MMBTU
12/5/2016	HOLLAND BOARD OF PUBLIC WORKS - EAST 5TH STREET	MI-0424	EUFUELHTR (Fuel pre-heater)	3.7	MMBTU/H	Good combustion practices.	0.03	LB/H
1/4/2017	INDECK NILES, LLC	MI-0423	FGFUELHTR (Two fuel pre-heaters identified as EUFUELHTR1 & EUFUELHTR2)	27	MMBTU/H	Good combustion practices.	0.15	LB/H
3/23/2017	MIDWEST FERTILIZER COMPANY LLC	IN-0263	STARTUP HEATER EU-002	70	MMBTU/HR	GOOD COMBUSTION PRACTICES	0.378	LB/H
4/19/2017	PALLAS NITROGEN LLC	OH-0368	Startup Heater (B001)	100	MMBTU/H	Good combustion control (i.e., high temperatures, sufficient excess air, sufficient residence times, and god air/fuel mixing).	0.54	LB/H
7/27/2017	FIRST QUALITY TISSUE LOCK HAVEN PLT	*PA-0313	Air-Makeup Units and Heaters	76.09	MMbtu/hr		0.6	TPY
8/2/2017	WHITING CLEAN ENERGY, INC.	IN-0285	Space Heaters	0			0.0053	LB/MMBTU
10/23/2017	GUERNSEY POWER STATION LLC	OH-0374	Fuel Gas Heaters (2 identical, P007 and P008)	15	MMBTU/H	Combustion control	0.075	LB/H
1/26/2018	RENOVO ENERGY CENTER, LLC	*PA-0316	Water Bath Heater	15	MMBtu		0.005	LB
3/21/2018	SEMINOLE GENERATING STATION	FL-0364	Two natural gas heaters (10 MMBtu/hr each)	9.9	MMBtu/hr		0.005	LB/MMBTU
4/26/2018	C4GT, LLC	VA-0328	Dew Point Heater	140	MMCF/YR	good combustion practices	0	
5/4/2018	NUCOR STEEL - BERKELEY	SC-0183	Galvanizing Line Equipment (galvanizing line 2 cleaning section heaters)	0		Good Combustion practices	5.5	LB/MMSCF
5/4/2018	NUCOR STEEL - BERKELEY	SC-0183	Galvanizing Line Equipment (galvanizing line/alkali cleaning section heaters)	10.3	MMBtu/hr		0	
6/25/2018	WAUPACA FOUNDRY, INC. PLANT 5	IN-0288	P51A, P54A, P51B, Hot Water Heater	33.65	mmBTU/hr		0.005	LB/MILLION FT3
7/10/2018	DRIFTWOOD LNG FACILITY	LA-0349	Hot Oil Heaters (5)	16.13	mm btu/hr	Good Combustion Practices and Use of low sulfur facility fuel gas	0.0054	LB/MM BTU
7/16/2018	BELLE RIVER COMBINED CYCLE POWER PLANT	MI-0435	EUFUELHTR1: Natural gas fired fuel heater	20.8	MMBTU/H	Good combustion controls	0.17	LB/H
7/16/2018	BELLE RIVER COMBINED CYCLE POWER PLANT	MI-0435	EUFUELHTR2: Natural gas fired fuel heater	3.8	MMBTU/H	Good combustion controls.	0.03	LB/H
9/6/2018	GREEN BAY PACKAGING, INC. - SHIPPING CONTAINER DIVISION	WI-0266	Space heaters (process P53)	40	mmBtu/hr	Good combustion practices, use only natural gas, equip with Low NOx burners	0.0055	LB/MMBTU
11/7/2018	BIG RIVER STEEL LLC	AR-0155	PREHEATER, GALVANIZING LINE SN-28	78.2	MMBTU/HR	COMBUSTION OF NATURAL GAS AND GOOD COMBUSTION PRACTICE	0.0054	LB/MMBTU
4/1/2019	GREEN BAY PACKAGING INC. â€“MILL DIVISION	WI-0292	P44 Space Heaters	20	mmBTU/hr	Good Combustion Practices, the Use of Low-NOx Burners	0.0055	LB/MMBTU
4/5/2019	BIG RIVER STEEL LLC	AR-0159	PREHEATERS, GALVANIZING LINE SN-28 and SN-29	0		COMBUSTION OF NATURAL GAS AND GOOD COMBUSTION PRACTICE	0.0054	LB/MMBTU
5/22/2019	MICHIGAN STATE UNIVERSITY	MI-0440	FGFUELHEATERS	25	MMBTU/H	Good combustion practices	0.005	LB/MMBTU
6/24/2019	CHICKAHOMINY POWER LLC	VA-0332	Three (3) Fuel Gas Heaters	103	MMCF/YR	good combustion practices, operator training, and proper emissions unit design, construction and maintenance.	0.3	T/YR
9/9/2019	EQUISTAR CHEMICALS CHANNELVIEW COMPLEX	TX-0865	Process Heaters	202	MMBtu/hr	Good combustion practices, clean fuel	5.5	LB/MMSCF
9/27/2019	NORTHSTAR BLUESCOPE STEEL, LLC	OH-0381	Ladle Preheaters and Dryers (P021-023, P025-026)	16	MMBTU/H	Use of natural gas, good combustion practices and design	0.09	LB/H
9/27/2019	NORTHSTAR BLUESCOPE STEEL, LLC	OH-0381	Tundish Preheaters #3 and #4 (P028 and P029)	9.5	mmbtu/hr	Use of natural gas, good combustion practices and design	0.05	LB/H
9/27/2019	SUPERIOR REFINING COMPANY LLC	WI-0311	Vacuum Tower Process Heater (P21)	49.7	MMBTU/H	Use of ultra-low NOx burners and good combustion practices	0.27	LB/H
10/31/2019	CONDENSATE SPLITTER FACILITY	TX-0872	Heater MSS â€“ Fractionation Heaters	0		Limiting duration and frequency of MSS. 96 annual operating hours. 12 hours per event	0	
11/26/2019	INDECK NILES, LLC	*MI-0445	FGFUELHTR (2 fuel pre-heaters)	27	MMBTU/H	Good combustion practices	0.07	LB/H
12/10/2019	GREEN BAY PACKAGING- MILL DIVISION	WI-0297	Natural Gas-Fired Space Heaters (P44)	8.5	MMBtu/H		0.0055	LB/MMBTU
12/10/2019	GREEN BAY PACKAGING- MILL DIVISION	WI-0297	Natural Gas-Fired Space Heaters (P53)	8.5	MMBtu/H	Use only natural gas.	0.0055	LB/MMBTU
1/6/2020	FG LA COMPLEX	LA-0364	Hot Oil Heaters 1 and 2	0		Good combustion practices and compliance with the applicable provisions of 40 CFR 63 Subpart DDDDD.	4.02	LB/H
1/8/2020	SWEENY REFINERY	TX-0877	Isostripper Reboiler (heater)	0		Good combustion practices, use of natural gas fuel for the project heater	0.0054	LB/MMBTU
2/4/2020	PORT ARTHUR REFINERY	TX-0873	Isomar Charge Heater	220.4	MMBTU/H	Good combustion practices will be used to reduce emissions including maintain proper air-to-fuel ratio, necessary residence time, temperature and turbulence. Combustion of pipeline-quality natural gas.	0	
2/4/2020	PORT ARTHUR REFINERY	TX-0873	REFORMATE HEATER	353.4	MMBtu	Good combustion practices will be used to reduce VOC including maintain proper air-to-fuel ratio, necessary residence time, temperature and turbulent.	0	
2/4/2020	PORT ARTHUR REFINERY	TX-0873	RAFFINATE HEATER	750	MMBTU/H	Good combustion practices will be used to reduce emissions including maintain proper air-to-fuel ratio, necessary residence time, temperature and turbulence. Combustion of pipeline-quality natural gas.	0	

RBLC Entries for Volatile Organic Compounds Control from Heaters

Date	Facility Name	RBLC ID	PROCESS NAME	THROUGHPUT	THROUGHPUT UNIT	Control Method	Limit No. 1	Unit
2/4/2020	PORT ARTHUR REFINERY	TX-0873	STRIPPER HEATER	117.3	MMBTU/H	Good combustion practices will be used to reduce emissions including maintain proper air-to-fuel ratio, necessary residence time, temperature and turbulence. Combustion of pipeline-quality natural gas.	0	
2/4/2020	PORT ARTHUR REFINERY	TX-0873	Less than 100 MMBtu/lb Fractionation Heaters	52.8	MMBTU/H	Good combustion practices will be used to reduce emissions including maintain proper air-to-fuel ratio, necessary residence time, temperature and turbulence. Combustion of pipeline-quality natural gas.	0	
2/4/2020	PORT ARTHUR REFINERY	TX-0873	Greater than 100 MMBtu/lb Fractionation Heater	140.1	MMBTU/H	Good combustion practices will be used to reduce emissions including maintain proper air-to-fuel ratio, necessary residence time, temperature and turbulence	0	
2/4/2020	PORT ARTHUR REFINERY	TX-0873	Less than 100 MMBtu/lb Hydrotreating Heaters	94.1	MMBTU/H	Good combustion practices will be used to reduce emissions including maintain proper air-to-fuel ratio, necessary residence time, temperature and turbulent.	0	
2/4/2020	PORT ARTHUR REFINERY	TX-0874	Fractionation Heaters with less than 100 MMBtu/hr heating capacity	46.7	MMBTU/H	Good combustion practices will be used to reduce CO including maintain proper air-to-fuel ratio, necessary residence time, temperature and turbulent. Use of natural pipeline gas or refinery fuel with sulfur concentration below 0.1 grains dry standard cubic feet.	0	
4/23/2020	ORANGE POLYETHYLENE PLANT	TX-0888	Heaters	100	MMBtu	Good combustion practice and proper design.	0.0054	LB/MMBTU
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 15-01 - Natural Gas Direct-Fired Space Heaters, Process Water Heaters, & Air Makeup Heaters	40	MMBtu/hr, combined	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	5.5	LB/MMSCF
8/13/2020	GAS TREATMENT PLANT	AK-0085	Two (2) Buyback Gas Bath Heaters and Three (3) Operations Camp Heaters	32	MMBtu/hr	Good Combustion Practices, Clean Fuels, and Limited Operation of 500 hours per year per heater.	0.0057	LB/MMBTU
8/20/2020	WPL- RIVERSIDE ENERGY CENTER	WI-0299	Natural Gas-Fired Space and Unit Heater (P30)	15.5	MMBTU/H	Only combust natural gas in each heater.	0.0054	LB/MMBTU
9/1/2020	NEMADJI TRAIL ENERGY CENTER	WI-0300	Natural Gas-Fired Heater (P04)	10	MMBTU/H	Only combust pipeline quality natural gas, operate and maintain process according to manufacturer€™s recommendations.	0.005	LB/MMBTU
9/1/2020	NEMADJI TRAIL ENERGY CENTER	WI-0300	Natural Gas-Fired Heater (P05)	10	MMBTU/H	Only combust pipeline quality natural gas and operate and maintain according to manufacturer€™s recommendations.	0.005	LB/MMBTU
12/18/2020	GRAYLING PARTICLEBOARD	MI-0448	Thermal oil heater (EUTOH in FGTOH)	38	MMBTU/H	Good design and operating/combustion practices	0.0054	LB/MMBTU
1/21/2021	BORGER REFINERY	TX-0914	CCR Charge and Inter-stage Heaters	0		GOOD COMBUSTION PRACTICES	0	
1/21/2021	BORGER REFINERY	TX-0914	Crude charge heaters	0		GOOD COMBUSTION PRACTICES	0	
4/19/2021	NUCOR STEEL GALLATIN, LLC	KY-0115	Galvanizing Line #2 Alkali Cleaning Section Heater (EP 21-07B)	23	MMBtu/hr	The permittee must develop a Good Combustion and Operating Practices (GCOP) Plan	5.5	LB/MMSCF
4/19/2021	NUCOR STEEL GALLATIN, LLC	KY-0115	Galvanizing Line #2 Zinc Pot Preheater (EP 21-09)	3	MMBtu/hr	The permittee must develop a Good Combustion and Operating Practices (GCOP) Plan	5.5	LB/MMSCF
8/27/2021	NEWMAN POWER STATION	TX-0908	LINE HEATER	0		Good combustions practices and pipeline natural gas	0	
10/19/2021	CENTURION BROWNSVILLE	TX-0930	Heaters and Boiler with Firing Rates Greater than or Equal to 100 MMBtu/hr	0		Use of natural pipeline gas or refinery fuel gas. Good combustion practices, including maintaining proper air-to-fuel ratio and necessary residence time, temperature, and turbulence.	0.0054	LB/MMBTU
10/19/2021	CENTURION BROWNSVILLE	TX-0930	Heaters and Boiler with Firing Rates Less than 100 MMBtu/hr	0		Use of natural pipeline gas or refinery fuel gas. Good combustion practices, including maintaining proper air-to-fuel ratio and necessary residence time, temperature, and turbulence.	0.0054	LB/MMBTU
11/17/2021	NACERO PENWELL FACILITY	TX-0933	Fired Process Heaters	0		good combustion practices and the use of gaseous fuel	0.0054	LB/MMBTU
11/17/2021	NACERO PENWELL FACILITY	TX-0933	Fired Steam Superheaters	0		good combustion practices and the use of gaseous fuel	0.0054	LB/MMBTU
11/17/2021	NACERO PENWELL FACILITY	TX-0933	Gasoline Loop SU Heaters	0		good combustion practices and the use of gaseous fuel	0.0054	LB/MMBTU
11/17/2021	NACERO PENWELL FACILITY	TX-0933	Regeneration Heaters	0		good combustion practices and the use of gaseous fuel	0.0054	LB/MMBTU
11/17/2021	NACERO PENWELL FACILITY	TX-0933	Isomerization Heaters	0		good combustion practices and the use of gaseous fuel	0.0054	LB/MMBTU
11/17/2021	NACERO PENWELL FACILITY	TX-0933	Hydrocracker Heaters	0		good combustion practices and the use of gaseous fuel	0.0054	LB/MMBTU
3/10/2022	WISCONSIN PUBLIC SERVICE CORPORATION-WESTON PLANT	WI-0314	Space and Water Heaters (P113)	3	MMBTU/H	Use of good combustion practices and use of pipeline quality natural gas.	0.0055	LB/MMBTU
5/6/2022	MIDWEST FERTILIZER COMPANY LLC	IN-0324	startup heater EU-002	33.34	MMBtu/hr	shall combust natural gas, good combustion practices	200	HR/YR
3/13/2023	ORANGE COUNTY ADVANCED POWER STATION	TX-0939	Water Bath Heater	16.8	MMBTU/HR	Good combustion practices	0.005	LB/MMBTU
3/14/2023	INEOS OLIGOMERS CHOCOLATE BAYOU	TX-0955	HOT OIL HEATER	0		Burner design for high efficiency combustion.	0	
3/14/2023	INEOS OLIGOMERS CHOCOLATE BAYOU	TX-0955	HEATER NO 2	0		Burner design for good combustion efficiency	0	
9/19/2023	CAMERON LNG FACILITY	LA-0398	Hot Oil Heaters (EQT0111, EQT0112, EQT0113)	90	mm btu/hr	Proper burner design and operations Good combustion practices Compliance with 40 CFR 63 Subpart DDDDD	0.0054	LB/MM BTU
9/19/2023	NEMADJI TRAIL ENERGY CENTER	*WI-0326	Heaters: S04/P04 and S05/P05	10	MMBtu/hr	(a) The permittee shall operate and maintain according to the manufacturer€™s recommendations. (b) The permittee shall tune within 120 days of the initial operation, and within 24-months of each preceding tune-up. (c) VOC emissions from may not exceed 0.005 lb/MMBtu. (d) The permittee may only combust pipeline quality natural gas.	0.005	LB/MMBTU
12/21/2023	CRONUS CHEMICALS	IL-0134	Startup Heater	47.7	mmBtu/hr	GCP and good burner design	0.0014	LB/MMBTU
4/3/2024	USG CLOQUET	MN-0096	Space Heater (EQUI 161)	10	MMBtu/hr	Good combustion practices	5.5	LB/MMBTU
2/14/2025	DUKE ENERGY INDIANA, INC.- CAYUGA GENERATING STATION	IN-0382	Turbine Fuel Heaters	10	MMBtu/hr	good combustion practices	0.01	LB/MMBTU
3/31/2025	SYCAMORE RIVERSIDE ENERGY LLC	IN-0384	Dew Point Heater	20	MMBtu/hr	GOOD COMBUSTION PRACTICES	0.025	LB

RBLC Entries for GHG Control from Heaters

Date	Facility Name	RBLC ID	PROCESS NAME	THROUGHPUT	THROUGHPUT UNIT	Control Method	Limit No. 1	Unit
1/8/2015	MIDWEST CITY AIR DEPOT	OK-0164	Heaters/Boilers	0	MMBTUH	1. Use pipeline-quality natural gas. 2. Good Combustion Practices. 3. Tune-ups for applicable boilers/heaters per 40CFR63, Subpart DDDDD.	153716	TONS PER YEAR
9/1/2015	MOXIE FREEDOM GENERATION PLANT	PA-0311	Fuel Gas Heater	0			7845	TPY
10/23/2015	ORIENTED STRANDBOARD (OSB) MILL	TX-0770	Standby Thermal Oil Heater (TO-2)	60	MMBTU/H	Good combustion operating practices.	2864	T/YR
1/19/2016	CMC STEEL OKLAHOMA	OK-0173	Heaters (Gas-Fired)	0		Natural Gas Fuel	120	LB/MMBTU
3/21/2016	MAGNOLIA LNG FACILITY	LA-0307	Regenerative Heaters	7.37	mm btu/hr	good combustion/operating/maintenance practices and fueled by natural gas	0	
8/26/2016	GRAYLING PARTICLEBOARD	MI-0421	EUTOH (In FGTOH)--Thermal Oil Heater	34	MMBTU/H	Good combustion and maintenance practices, natural gas only.	17438	T/YR
9/27/2016	INVENERGY NELSON EXPANSION LLC	IL-0121	Fuel Heater	15	mmbtu/hr		1836	TPY
12/5/2016	HOLLAND BOARD OF PUBLIC WORKS - EAST 5TH STREET	MI-0424	EUFUELHTR (Fuel pre-heater)	3.7	MMBTU/H	Good combustion practices.	1934	T/YR
12/20/2016	TOPCHEM POLLOCK, LLC	*LA-0306	Ammonia Converter Start-up Heater Stack SUH-16-1 (EQT030)	20	MM BTU/hr	Use of pipeline quality natural gas and good combustion practices	169	T/YR
1/4/2017	INDECK NILES, LLC	MI-0423	FGFUELHTR (Two fuel pre-heaters identified as EUFUELHTR1 & EUFUELHTR2)	27	MMBTU/H	Energy efficiency measures and the use of a low carbon fuel (pipeline quality natural gas).	13848	T/YR
4/19/2017	PALLAS NITROGEN LLC	OH-0368	Startup Heater (B001)	100	MMBTU/H	Good combustion control (i.e., high temperatures, sufficient excess air, sufficient residence times, and god air/fuel mixing).	2840	T/YR
6/30/2017	JACKSON COUNTY GENERATING FACILITY	TX-0824	Natural-Gas-Fired Fuel Gas Heaters	15.9	MMBTU/HR	natural gas as a low carbon fuel, good operating and maintenance practices, efficient design, and low annual capacity	2818.74	T/YR
10/23/2017	GUERNSEY POWER STATION LLC	OH-0374	Fuel Gas Heaters (2 identical, P007 and P008)	15	MMBTU/H	Natural gas, low-emitting fuel	7695	T/YR
10/31/2017	FIBER INDUSTRIES LLC	SC-0182	Process Heaters	0		Use of clean fuel, and Good Combustion Practices to ensure complete combustion, and efficient heater designs. Slowly increase/decrease firing rate while maintaining a minimum of 3% O2 in stack gas, monitor opacity, minimize the heater startup and shutdown periods.	84627	TPY / HEATER
4/26/2018	C4GT, LLC	VA-0328	Dew Point Heater	140	MMCF/YR	use of natural gas and high efficiency design and operation	8208	T/YR
5/4/2018	NUCOR STEEL - BERKELEY	SC-0183	Galvanizing Line Equipment (galvanizing line 2 cleaning section heaters)	0		Use of natural gas and efficient combustion technology through good combustion practices	4924	TPY
7/10/2018	DRIFTWOOD LNG FACILITY	LA-0349	Hot Oil Heaters (5)	16.13	mm btu/hr	Use Low Carbon Fuel, Energy Efficiency Measures, and Good Combustion Practices	0	
7/16/2018	BELLE RIVER COMBINED CYCLE POWER PLANT	MI-0435	EUFUELHTR1: Natural gas fired fuel heater	20.8	MMBTU/H	Natural gas fuel	6310	T/YR
7/16/2018	BELLE RIVER COMBINED CYCLE POWER PLANT	MI-0435	EUFUELHTR2: Natural gas fired fuel heater	3.8	MMBTU/H	Natural gas fuel	6310	T/YR
7/30/2018	CPV THREE RIVERS ENERGY CENTER	IL-0129	Fuel Heater	12.8	mmBtu/hr	Good combustion practice	6600	TON/YR
8/24/2018	ARKEMA BEAUMONT PLANT	TX-0845	HEATERS	31	BTU/HR	low carbon fuel selection, and good combustion practices	0	
9/6/2018	GREEN BAY PACKAGING, INC. - SHIPPING CONTAINER DIVISION	WI-0266	Space heaters (process P53)	40	mmBtu/hr	Good combustion practices, use only natural gas, equip with Low NOx burners, minimum design annual fuel utilization efficiency of 90%	0	
12/31/2018	JACKSON ENERGY CENTER	IL-0130	Fuel Heater	13	mmBtu/hour	Good combustion practice	6700	TONS/YEAR
2/6/2019	PETMIN USA INCORPORATED	OH-0379	Ladle Preheaters (P002, P003 and P004)	15	MMBTU/H	Good combustion practices and the use of natural gas	1764	LB/H
4/1/2019	GREEN BAY PACKAGING INC. â€“ MILL DIVISION	WI-0292	P44 Space Heaters	20	mmBTU/hr	Good Combustion Practices, the Use of Low-NOx Burners	0	
5/22/2019	MICHIGAN STATE UNIVERSITY	MI-0440	FGFUELHEATERS	25	MMBTU/H	Utilize low-carbon fuels and implement energy efficiency measures and preventative maintenance pursuant to manufacturer recommendations.	12822	T/YR
6/24/2019	CHICKAHOMINY POWER LLC	VA-0332	Three (3) Fuel Gas Heaters	103	MMCF/YR	use of natural gas and high efficiency design and operation	6261	T/YR
9/9/2019	EQUISTAR CHEMICALS CHANNELVIEW COMPLEX	TX-0865	Process Heaters	202	MMBtu/hr	Good combustion practices and low-emitting gaseous fuel.	0	
9/27/2019	NORTHSTAR BLUESCOPE STEEL, LLC	OH-0381	Ladle Preheaters and Dryers (P021-023, P025-026)	16	MMBTU/H	Use of natural gas and energy efficient design	1869.65	LB/H
9/27/2019	NORTHSTAR BLUESCOPE STEEL, LLC	OH-0381	Tundish Preheaters #3 and #4 (P028 and P029)	9.5	mmbtu/hr	Use of natural gas and energy efficient design	1110.1	LB/H
9/27/2019	SUPERIOR REFINING COMPANY LLC	WI-0311	Vacuum Tower Process Heater (P21)	49.7	MMBTU/H	Good combustion practices and to operate the steam production system at all times that the heater is operating except for periods of heater maintenance, startup or shutdown.	0	
10/31/2019	CONDENSATE SPLITTER FACILITY	TX-0872	Heater MSS â€“ Fractionation Heaters	0		Limiting duration and frequency of MSS. 96 annual operating hours. 2 hours per event	0	
11/26/2019	INDECK NILES, LLC	*MI-0445	FGFUELHTR (2 fuel pre-heaters)	27	MMBTU/H	Energy Efficiency Measures and the use of a low carbon fuel (pipeline quality natural gas)	13848	T/YR
12/10/2019	GREEN BAY PACKAGING- MILL DIVISION	WI-0297	Natural Gas-Fired Space Heaters (P44)	8.5	MMBtu/H	Use only natural gas.	90	% AVG THERM EFF
12/10/2019	GREEN BAY PACKAGING- MILL DIVISION	WI-0297	Natural Gas-Fired Space Heaters (P53)	8.5	MMBtu/H	Only fire natural gas.	90	% AVG THERM EFF
1/6/2020	FG LA COMPLEX	LA-0364	Hot Oil Heaters 1 and 2	0		Use of fuel gas as fuel, energy-efficient design options, and operational/maintenance practices.	5858	TONS/YR
2/4/2020	PORT ARTHUR REFINERY	TX-0873	Isomar Charge Heater	220.4	MMBTU/H	Good combustion practices will be used to reduce emissions including maintain proper air-to-fuel ratio, necessary residence time, temperature and turbulence. Combustion of pipeline-quality natural gas.	0	
2/4/2020	PORT ARTHUR REFINERY	TX-0873	REFORMATE HEATER	353.4	MMBtu	Good combustion practices will be used to reduce emissions including maintain proper air-to-fuel ratio, necessary residence time, temperature and turbulent.	0	
2/4/2020	PORT ARTHUR REFINERY	TX-0873	RAFFINATE HEATER	750	MMBTU/H	Good combustion practices will be used to reduce emissions including maintain proper air-to-fuel ratio, necessary residence time, temperature and turbulence. Combustion of pipeline-quality natural gas.	0	
2/4/2020	PORT ARTHUR REFINERY	TX-0873	STRIPPER HEATER	117.3	MMBTU/H	Good combustion practices will be used to reduce emissions including maintain proper air-to-fuel ratio, necessary residence time, temperature and turbulence. Combustion of pipeline-quality natural gas.	0	

RBLC Entries for GHG Control from Heaters

Date	Facility Name	RBLC ID	PROCESS NAME	THROUGHPUT	THROUGHPUT UNIT	Control Method	Limit No. 1	Unit
2/4/2020	PORT ARTHUR REFINERY	TX-0873	Less than 100 MMBtu/lb Fractionation Heaters	52.8	MMBTU/H	Good combustion practices will be used to reduce emissions including maintain proper air-to-fuel ratio, necessary residence time, temperature and turbulence. Combustion of pipeline-quality natural gas.	0	
2/4/2020	PORT ARTHUR REFINERY	TX-0873	Greater than 100 MMBtu/lb Fractionation Heater	140.1	MMBTU/H	Good combustion practices will be used to reduce emissions including maintain proper air-to-fuel ratio, necessary residence time, temperature and turbulence	0	
2/4/2020	PORT ARTHUR REFINERY	TX-0873	Less than 100 MMBtu/lb Hydrotreating Heaters	94.1	MMBTU/H	Good combustion practices will be used to reduce emissions including maintain proper air-to-fuel ratio, necessary residence time, temperature and turbulent.	0	
2/4/2020	PORT ARTHUR REFINERY	TX-0874	Fractionation Heaters with less than 100 MMBtu/hr heating capacity	46.7	MMBTU/H	Good combustion practices will be used to reduce CO including maintain proper air-to-fuel ratio, necessary residence time, temperature and turbulent. Use of natural pipeline gas or refinery fuel with sulfur concentration below 0.1 grains dry standard cubic feet.	0	
4/23/2020	ORANGE POLYETHYLENE PLANT	TX-0888	Heaters	100	MMBtu	Good combustion practice, clean fuel, and proper design	0	
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 15-01 - Natural Gas Direct-Fired Space Heaters, Process Water Heaters, & Air Makeup Heaters	40	MMBtu/hr, combined	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan and meet design requirements.	20734	TON/YR
8/8/2020	SWEENY OLD OCEAN FACILITIES	TX-0889	Catalyst Activator Heaters	6	MMBTU/HR	Good combustion practices	0	
8/13/2020	GAS TREATMENT PLANT	AK-0085	Two (2) Buyback Gas Bath Heaters and Three (3) Operations Camp Heaters	32	MMBtu/hr	Good Combustion Practices, Clean Fuels, and Limited Operation of 500 hours per year per heater.	117.1	LB/MMBTU
9/1/2020	NEMADJI TRAIL ENERGY CENTER	WI-0300	Natural Gas-Fired Heater (P04)	10	MMBTU/H	Low-NOx burners, only combust pipeline quality natural gas, and operate and maintain heater according to manufacturer€™s recommendations.	0	
9/1/2020	NEMADJI TRAIL ENERGY CENTER	WI-0300	Natural Gas-Fired Heater (P05)	10	MMBTU/H	Low-NOx burners, only combust pipeline quality natural gas, and operate and maintain according to manufacturer€™s recommendations.	0	
12/18/2020	GRAYLING PARTICLEBOARD	MI-0448	Thermal oil heater (EUTOH in FGTOH)	38	MMBTU/H	Good combustion and maintenance practices, natural gas only.	19490	T/YR
1/21/2021	BORGER REFINERY	TX-0914	CCR Charge and Inter-stage Heaters	0		good combustion practices and firing either refinery fuel gas or pipeline quality sweet natural gas	0	
1/21/2021	BORGER REFINERY	TX-0914	Crude charge heaters	0		energy efficient design, low carbon fuels, and good combustion practices	0	
4/19/2021	NUCOR STEEL GALLATIN, LLC	KY-0115	Galvanizing Line #2 Alkali Cleaning Section Heater (EP 21-07B)	23	MMBtu/hr	The permittee must develop a Good Combustion and Operating Practices (GCOP) Plan and implement various design and operational efficiency requirements.	11922	TONS/YR
4/19/2021	NUCOR STEEL GALLATIN, LLC	KY-0115	Galvanizing Line #2 Zinc Pot Preheater (EP 21-09)	3	MMBtu/hr	The permittee must develop a Good Combustion and Operating Practices (GCOP) Plan and implement various design and operational efficiency requirements.	30	TONS/YR
8/27/2021	NEWMAN POWER STATION	TX-0908	LINE HEATER	0		Good combustions practices and properly maintaining the unit	0	
9/21/2021	COLBERT COMBUSTION TURBINE PLANT	AL-0329	Three Gas Heaters	10	MMBtu/hr		117.1	LB/MMBTU
10/19/2021	CENTURION BROWNSVILLE	TX-0930	Heaters and Boiler with Firing Rates Greater than or Equal to 100 MMBtu/hr	0		Low carbon fuel selection. Good combustion practices, including maintaining proper air-to-fuel ratio and necessary residence time, temperature, and turbulence.	0	
10/19/2021	CENTURION BROWNSVILLE	TX-0930	Heaters and Boiler with Firing Rates Less than 100 MMBtu/hr	0		Use of natural pipeline gas or refinery fuel gas. Good combustion practices, including maintaining proper air-to-fuel ratio and necessary residence time, temperature, and turbulence.	0	
11/17/2021	NACERO PENWELL FACILITY	TX-0933	Fired Process Heaters	0		good combustion practices and the use of gaseous fuel	0	
11/17/2021	NACERO PENWELL FACILITY	TX-0933	Fired Steam Superheaters	0		good combustion practices and the use of gaseous fuel	0	
11/17/2021	NACERO PENWELL FACILITY	TX-0933	Gasoline Loop SU Heaters	0		good combustion practices and the use of gaseous fuel	0	
11/17/2021	NACERO PENWELL FACILITY	TX-0933	Regeneration Heaters	0		good combustion practices and the use of gaseous fuel	0	
11/17/2021	NACERO PENWELL FACILITY	TX-0933	Isomerization Heaters	0		good combustion practices and the use of gaseous fuel	0	
11/17/2021	NACERO PENWELL FACILITY	TX-0933	Hydrocracker Heaters	0		good combustion practices and the use of gaseous fuel	0	
3/10/2022	WISCONSIN PUBLIC SERVICE CORPORATION-WESTON PLANT	WI-0314	Space and Water Heaters (P113)	3	MMBTU/H	Use of good combustion practices, use of pipeline quality natural gas	0	
5/6/2022	MIDWEST FERTILIZER COMPANY LLC	IN-0324	startup heater EU-002	33.34	MMBtu/hr	shall combust natural gas, shall be controlled by good combustion practices	200	HR/YR
3/13/2023	ORANGE COUNTY ADVANCED POWER STATION	TX-0939	Water Bath Heater	16.8	MMBTU/HR	Good combustion practices	0	
9/19/2023	CAMERON LNG FACILITY	LA-0398	Hot Oil Heaters (EQT0111, EQT0112, EQT0113)	90	mm btu/hr	Use of low carbon fuels Good combustion/operation/maintenance practices Efficient design	0	
9/19/2023	NEMADJI TRAIL ENERGY CENTER	*WI-0326	Heaters: S04/P04 and S05/P05	10	MMBtu/hr	(a) Equipped with low-NOx burners. (b) Only pipeline quality natural gas may be combusted. (c) The permittee shall operate and maintain according to the manufacturer€™s recommendations. (d) The permittee shall tune within 120 days of the initial operation of, and within 24-months of each preceding tune-up.	0	
10/5/2023	NEDERLAND FACILITY	TX-0964	HEATERS	0		Good combustion practices and fire hydrogen€rich plant fuel gas	0	
12/21/2023	CRONUS CHEMICALS	IL-0134	Startup Heater	47.7	mmBtu/hr	Energy efficient design, GCP, and use of automated combustion management system with inlet air controls	604	TONS/YEAR
1/11/2024	WABASH VALLEY RESOURCES, LLC	IN-0371	Dewpoint Heater	1.44	MMBtu/hr	Good Combustion Practices	117	LB/MMBTU
2/14/2025	DUKE ENERGY INDIANA, INC.- CAYUGA GENERATING STATION	IN-0382	Turbine Fuel Heaters	10	MMBtu/hr	good combustion practices and use of pipeline quality natural gas	10258	TONS
3/31/2025	SYCAMORE RIVERSIDE ENERGY LLC	IN-0384	Dew Point Heater	20	MMBtu/hr	GOOD COMBUSTION PRACTICES AND LOW SULFUR FUELS	0	

RBLC Entries for Nitorgen Oxides Control from Emergency Engines

Date	Facility Name	RBLC ID	PROCESS NAME	THROUGHPUT	THROUGHPUT U	Control Method	Limit No. 1	Unit
1/14/2015	WARREN TECHNICAL CENTER	MI-0418	FG-BACKUPGENS (Nine (9) DRUPS Emergency Engines)	3490	KW	No add-on controls, but injection timing retardation (ITR) is good design. Engines are tuned for low-NOx operation versus low CO operation.	8	G/KW-H
1/14/2015	WARREN TECHNICAL CENTER	MI-0418	Four (4) emergency engines in FG-BACKUPGENS	2710	KW	No add-on controls, but injection timing retardation (ITR) is good design. Engines are tuned for low-NOx operation versus low CO operation.	7.13	G/KW-H
1/23/2015	POINT THOMSON PRODUCTION FACILITY	AK-0082	Emergency Camp Generators	2695	hp		4.8	GRAMS/HP-H
1/23/2015	POINT THOMSON PRODUCTION FACILITY	AK-0082	Fine Water Pumps	610	hp		3	GRAMS/HP-H
1/23/2015	POINT THOMSON PRODUCTION FACILITY	AK-0082	Bulk Tank Generator Engines	891	hp		4.8	GRAMS/HP-H
4/1/2015	PEONY CHEMICAL MANUFACTURING FACILITY	TX-0728	Emergency Diesel Generator	1500	hp	Minimized hours of operations Tier II engine	0.0218	G/HP HR
6/4/2015	BENTELER STEEL TUBE FACILITY	LA-0309	Emergency Generator Engines	2922	hp (each)	Complying with 40 CFR 60 Subpart IIII	6.4	G/KW-HR
8/25/2015	CLEAN ENERGY FUTURE - LORDSTOWN, LLC	OH-0366	Emergency generator (P003)	2346	HP	State-of-the-art combustion design	21.6	LB/H
9/1/2015	MOXIE FREEDOM GENERATION PLANT	PA-0311	Fire Pump Engine	0			3	G/HP-HR
12/23/2015	LACKAWANNA ENERGY CTR/JESSUP	PA-0309	2000 kW Emergency Generator	0			5.45	GM/HP-HR
1/22/2016	HOLBROOK COMPRESSOR STATION	LA-0292	Emergency Generators No. 1 & No. 2	1341	HP	Good equipment design, proper combustion techniques, use of low sulfur fuel, and compliance with 40 CFR 60 Subpart IIII	14.16	LB/HR
2/3/2016	CRICKET VALLEY ENERGY CENTER	NY-0103	Black start generator	3000	KW	Generator equipped with selective catalytic reduction. Compliance demonstrated with vendor emission certification and adherence to vendor-specified maintenance recommendations.	2.11	G/BHP-H
3/10/2016	PSEG FOSSIL LLC SEWAREN GENERATING STATION	NJ-0084	Diesel Fired Emergency Generator	44	H/YR	use of ultra low sulfur diesel a clean burning fuel.	42.3	LB/H
3/21/2016	MAGNOLIA LNG FACILITY	LA-0307	Diesel Engines	0		good combustion practices, Use ultra low sulfur diesel, and comply with 40 CFR 60 Subpart IIII	0	
6/17/2016	GREENSVILLE POWER STATION	VA-0325	DIESEL-FIRED EMERGENCY GENERATOR 3000 kW (1)	0		Good Combustion Practices/Maintenance	6.4	G/KW
6/30/2016	LAKE CHARLES METHANOL FACILITY	LA-0305	Diesel Engines (Emergency)	4023	hp	Complying with 40 CFR 60 Subpart IIII	0	
8/26/2016	GRAYLING PARTICLEBOARD	MI-0421	Emergency Diesel Generator Engine (EUEMRGRICE in FGRICE)	500	H/YR	Certified engines, limited operating hours.	22.6	LB/H
8/26/2016	GRAYLING PARTICLEBOARD	MI-0421	Dieself fire pump engine (EUFIREPUMP in FGRICE)	500	H/YR	Certified engines, limited operating hours.	3.53	LB/H
8/31/2016	ST. CHARLES POWER STATION	LA-0313	SCPS Emergency Diesel Generator 1	2584	HP	Compliance with NESHAP 40 CFR 63 Subpart ZZZZ and NSPS 40 CFR 60 Subpart IIII, and good combustion practices (use of ultra-low sulfur diesel fuel).	27.34	LB/H
9/2/2016	CPV FAIRVIEW ENERGY CENTER	PA-0310	Emergency Generator Engines	0			4.8	G/BHP-HR
9/23/2016	SOUTH FIELD ENERGY LLC	OH-0367	Emergency generator (P003)	2947	HP	State-of-the-art combustion design	27.18	LB/H
12/22/2016	METHANEX - GEISMAR METHANOL PLANT	LA-0317	Emergency Generator Engines (4 units)	0		complying with 40 CFR 60 Subpart IIII and 40 CFR 63 Subpart ZZZZ	0	
12/22/2016	METHANEX - GEISMAR METHANOL PLANT	LA-0317	Firewater pump Engines (4 units)	896	hp (each)	complying with 40 CFR 60 Subpart IIII and 40 CFR 63 Subpart ZZZZ	0	
1/4/2017	INDECK NILES, LLC	MI-0423	EUEMENGINE (Diesel fuel emergency engine)	22.68	MMBTU/H	Good combustion practices and meeting NSPS IIII requirements.	6.4	G/KW-H
1/9/2017	MONSANTO LULING PLANT	LA-0323	Fire Water Diesel Pump No. 3 Engine	600	hp	Proper operation and limits on hours operation for emergency engines and compliance with 40 CFR 60 Subpart IIII	0	
1/9/2017	MONSANTO LULING PLANT	LA-0323	Fire Water Diesel Pump No. 4 Engine	600	hp	Proper operation and limits on hours of operation for emergency engines and compliance with 40 CFR 60 Subpart IIII	0	
2/17/2017	CAMERON LNG FACILITY	LA-0316	emergency generator engines (6 units)	3353	hp	Complying with 40 CFR 60 Subpart IIII	0	
3/23/2017	MIDWEST FERTILIZER COMPANY LLC	IN-0263	EMERGENCY GENERATORS (EU014A AND EU-014B)	3600	HP EACH	GOOD COMBUSTION PRACTICES	4.42	G/HP-H EACH
4/19/2017	PALLAS NITROGEN LLC	OH-0368	Emergency Generator (P009)	5000	HP	good combustion control and operating practices and engines designed to meet the stands of 40 CFR Part 60, Subpart IIII	5.5	LB/H
5/9/2017	GRAYLING PARTICLEBOARD	MI-0425	EUEMRGRICE1 in FGRICE (Emergency diesel generator engine)	500	H/YR	Certified engines, limited operating hours.	21.2	LB/H
5/9/2017	GRAYLING PARTICLEBOARD	MI-0425	EUEMRGRICE2 in FGRICE (Emergency Diesel Generator Engine)	500	H/YR	Certified engines, limited operating hours	4.4	LB/H
5/9/2017	GRAYLING PARTICLEBOARD	MI-0425	EUFIREPUMP in FGRICE (Diesel fire pump engine)	500	H/YR	Certified engines. Limited operating hours.	3.53	LB/H
6/21/2017	MIT CENTRAL UTILITY PLANT	MA-0043	Cold Start Engine	19.04	MMBTU/HR		35.09	LB/HR
6/30/2017	DONLIN GOLD PROJECT	AK-0084	Black Start and Emergency Internal Cumbustion Engines	1500	kWe	Good Combustion Practices	8	G/KW-HR

RBLC Entries for Nitorgen Oxides Control from Emergency Engines

Date	Facility Name	RBLC ID	PROCESS NAME	THROUGHPUT	THROUGHPUT U	Control Method	Limit No. 1	Unit
6/30/2017	DONLIN GOLD PROJECT	AK-0084	Twelve (12) Large ULSD/Natural Gas-Fired Internal Combustion Engines	143.5	MMBtu/hr	Selective Catalytic Reduction (SCR) and Good Combustion Practices	0.53	G/KW-HR (ULSD)
6/30/2017	ST. JAMES METHANOL PLANT	*LA-0312	DFP1-13 - Diesel Fire Pump Engine (EQT0013)	650	horsepower	Compliance with NSPS Subpart IIII	6.6	LB/HR
6/30/2017	ST. JAMES METHANOL PLANT	*LA-0312	DEG1-13 - Diesel Fired Emergency Generator Engine (EQT0012)	1474	horsepower	Compliance with NSPS Subpart IIII	19.23	LB/HR
9/7/2017	TRUMBULL ENERGY CENTER	OH-0370	Emergency generator (P003)	1529	HP	State-of-the-art combustion design	16.07	LB/H
9/15/2017	INWOOD	WV-0027	Emergency Generator - ESDG14	900	bhp	Engine Design	4.77	G/HP-HR
9/27/2017	OREGON ENERGY CENTER	OH-0372	Emergency generator (P003)	1529	HP	State-of-the-art combustion design	16.1	LB/H
10/23/2017	GUERNSEY POWER STATION LLC	OH-0374	Emergency Generators (2 identical, P004 and P005)	2206	HP	Certified to the meet the emissions standards in 40 CFR 89.112 and 89.113 pursuant to 40 CFR 60.4205(b) and 60.4202(a)(2). Good combustion practices per the manufacturerâ€™s operating manual.	23.21	LB/H
11/7/2017	LONG RIDGE ENERGY GENERATION LLC - HANNIBAL POWER	OH-0375	Emergency Diesel Generator Engine (P001)	2206	HP	Good combustion design	24.71	LB/H
11/7/2017	LONG RIDGE ENERGY GENERATION LLC - HANNIBAL POWER	OH-0375	Emergency Diesel Fire Pump Engine (P002)	700	HP	Good combustion design	4.97	LB/H
12/18/2017	TALLADEGA SAWMILL	AL-0318	250 Hp Emergency CI, Diesel-fired RICE	0			0	
2/9/2018	IRONUNITS LLC - TOLEDO HBI	OH-0376	Emergency diesel-fired generator (P007)	2682	HP	Comply with NSPS 40 CFR 60 Subpart IIII	28.2	LB/H
3/22/2018	FLAT ROCK ASSEMBLY PLANT	MI-0434	EUENGINE01 through EUENGINE08	3633	BHP	Good combustion practices.	6.4	G/KW-H
4/19/2018	HARRISON POWER	OH-0377	Emergency Diesel Generator (P003)	1860	HP	Good combustion practices (ULSD) and compliance with 40 CFR Part 60, Subpart IIII	19.68	LB/H
4/24/2018	SIO INTERNATIONAL WISCONSIN, INC. -ENERGY PLANT	WI-0284	Diesel-Fired Emergency Generators	0		The Use of Ultra-Low Sulfur Fuel and Good Combustion Practices	5.36	G/KWH
4/24/2018	SIO INTERNATIONAL WISCONSIN, INC. -ENERGY PLANT	WI-0286	P42 -Diesel Fired Emergency Generator	0		Good Combustion Practices, The Use of an Engine Turbocharger and Aftercooler.	5.36	G/KWH
4/26/2018	C4GT, LLC	VA-0328	Emergency Diesel GEN	500	H/YR	good combustion practices and the use of ultra low sulfur diesel (S15 ULSD) fuel oil with a maximum sulfur content of 15 ppmw.	4.8	G/HP H
6/29/2018	MEC NORTH, LLC AND MEC SOUTH LLC	MI-0433	EUEMENGINE (North Plant): Emergency Engine	1341	HP	Good combustion practices and meeting NSPS Subpart IIII requirements.	6.4	G/KW-H
6/29/2018	MEC NORTH, LLC AND MEC SOUTH LLC	MI-0433	EUEMENGINE (South Plant): Emergency Engine	1341	HP	Good combustion practices and meeting NSPS IIII requirements.	6.4	G/KW-H
7/16/2018	BELLE RIVER COMBINED CYCLE POWER PLANT	MI-0435	EUEMENGINE: Emergency engine	2	MW	State of the art combustion design.	6.4	G/KW-H
7/27/2018	SHADY HILLS COMBINED CYCLE FACILITY	FL-0367	1,500 kW Emergency Diesel Generator	14.82	MMBtu/hour	Operate and maintain the engine according to the manufacturer's written instructions	6.4	G/KW-HOUR
7/30/2018	CPV THREE RIVERS ENERGY CENTER	IL-0129	Emergency Engines	0			0	
9/21/2018	CALCASIEU PASS LNG PROJECT	LA-0331	Firewater Pumps	634	kW	Good Combustion and Operating Practices.	3.1	G/HP-H
9/21/2018	CALCASIEU PASS LNG PROJECT	LA-0331	Large Emergency Engines (>50kW)	5364	HP	Good Combustion and Operating Practices	5.6	G/KW-H
12/21/2018	LBWL--ERICKSON STATION	MI-0441	EUEMGD1--A 1500 HP diesel fueled emergency engine	1500	HP	Good combustion practices and will be NSPS compliant.	6.4	G/KW-H
12/21/2018	LBWL--ERICKSON STATION	MI-0441	EUEMGD2--A 6000 HP diesel fuel fired emergency engine	6000	HP	Good combustion practices and will be NSPS compliant.	6.4	G/KW-H
12/21/2018	PTTGCA PETROCHEMICAL COMPLEX	OH-0378	Emergency Diesel-fired Generator Engine (P007)	3353	HP	certified to the meet the emissions standards in Table 4 of 40 CFR Part 60, Subpart IIII, shall employ good combustion practices per the manufacturerâ€™s operating manual	37.41	LB/H
12/21/2018	PTTGCA PETROCHEMICAL COMPLEX	OH-0378	1,000 kW Emergency Generators (P008 - P010)	1341	HP	certified to the meet the emissions standards in Table 4 of 40 CFR Part 60, Subpart IIII, shall employ good combustion practices per the manufacturerâ€™s operating manual	14.96	LB/H
12/31/2018	JACKSON ENERGY CENTER	IL-0130	Emergency Engine	1500	kW		6.4	G/KW-HR
2/6/2019	PETMIN USA INCORPORATED	OH-0379	Emergency Generators (P005 and P006)	3131	HP	Tier IV engine Tier IV NSPS standards certified by engine manufacturer.	3.45	LB/H
4/25/2019	BIG LAKE FUELS METHANOL PLANT	LA-0382	Emergency Engines (EQT0014 - EQT0017)	0		Comply with standards of 40 CFR 60 Subpart IIII	0	
6/9/2019	BIG RIVER STEEL LLC	AR-0163	Emergency Engines	0		Good Operating Practices, limited hours of operation, Compliance with NSPS Subpart IIII	4.86	G/KW-HR
6/11/2019	RIVERVIEW ENERGY CORPORATION	IN-0317	Emergency generator EU-6006	2800	HP	Tier II diesel engine	6.4	G/KWH
6/11/2019	RIVERVIEW ENERGY CORPORATION	IN-0317	Emergency fire pump EU-6008	750	HP	Engine that complies with Table 4 to Subpart IIII of Part 60	4	G/KWH

RBLC Entries for Nitorgen Oxides Control from Emergency Engines

Date	Facility Name	RBLC ID	PROCESS NAME	THROUGHPUT	THROUGHPUT U	Control Method	Limit No. 1	Unit
6/24/2019	CHICKAHOMINY POWER LLC	VA-0332	Emergency Diesel Generator - 300 kW	500	H/YR	good combustion practices, high efficiency design, and the use of ultra low sulfur diesel (S15 ULSD) fuel oil with a maximum sulfur content of 15 ppmw.	4.8	G/HP-H
8/21/2019	THOMAS TOWNSHIP ENERGY, LLC	MI-0442	FGEMENGINE	1100	KW		5.3	G/HP-H
9/23/2019	SUN BIO MATERIAL COMPANY	AR-0161	Emergency Engines	0		Good Operating Practices, limited hours of operation, Compliance with NSPS Subpart IIII	0.4	G/KW-H
11/26/2019	INDECK NILES, LLC	*MI-0445	EUEMENGINE (diesel fuel emergency engine)	22.68	MMBTU/H	Good Combustion Practices and meeting NSPS Subpart IIII requirements	6.4	G/KW-H
1/6/2020	FG LA COMPLEX	LA-0364	Emergency Generator Diesel Engines	550	hp	Compliance with the limitations imposed by 40 CFR 63 Subpart IIII and operating the engine in accordance with the engine manufacturer's instructions and/or written procedures designed to maximize combustion efficiency and minimize fuel usage.	0	
1/6/2020	FG LA COMPLEX	LA-0364	Emergency Fire Water Pumps	550	hp	Compliance with the limitations imposed by 40 CFR 63 Subpart IIII and operating the engine in accordance with the engine manufacturer's instructions and/or written procedures designed to maximize combustion efficiency and minimize fuel usage.	0	
2/6/2020	PORT ARTHUR ETHANE CRACKER UNIT	TX-0876	Emergency generator	0		Tier 4 exhaust emission standards specified in 40 CFR Â§ 1039.101, limited to 100 hours per year of non-emergency operation	0	
2/19/2020	MOTIVA PORT ARTHUR TERMINAL	TX-0879	Emergency Firewater Engine	0		Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs/yr of non-emergency operation. Have a non-resettable runtime meter.	0	
4/23/2020	ORANGE POLYETHYLENE PLANT	TX-0888	EMERGENCY GENERATORS & FIRE WATER PUMP ENGINES	0		well-designed and properly maintained engines and each limited to 100 hours per year of non-emergency use.	0	
7/17/2020	PETMIN USA INCORPORATED	OH-0383	Diesel-fired emergency fire pumps (2) (P009 and P010)	3131	HP	Tier IV NSPS standards certified by engine manufacturer.	0	
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 10-02 - North Water System Emergency Generator	2922	HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	4.77	G/HP-HR
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 10-03 - South Water System Emergency Generator	2922	HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	4.77	G/HP-HR
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 10-04 - Emergency Fire Water Pump	920	HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	4.77	G/HP-HR
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 10-07 - Air Separation Plant Emergency Generator	700	HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	4.77	G/HP-HR
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 10-01 - Caster Emergency Generator	2922	HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	4.77	G/HP-HR
8/13/2020	GAS TREATMENT PLANT	AK-0085	One (1) Black Start Generator Engine	186.6	gph	Good combustion practices, limit operation to 500 hours per year.	3.3	G/HP-HR
9/1/2020	NEMADJI TRAIL ENERGY CENTER	WI-0300	Emergency Diesel Generator (P07)	1490	HP	Operation limited to 500 hours/year and operate and maintain according to the manufacturerâ€™s recommendations.	4.8	G/HP-H
9/3/2020	LAKE CHARLES LNG EXPORT TERMINAL	LA-0383	Emergency Engines (EQT0011 - EQT0016)	0		Comply with 40 CFR 60 Subpart IIII	0	
9/9/2020	MOTIVA POLYETHYLENE MANUFACTURING COMPLEX	TX-0904	EMERGENCY GENERATOR	0		100 HOURS OPERATIONS, Tier 4 exhaust emission standards specified in 40 CFR Â§ 1039.101	0	
9/16/2020	DIAMOND GREEN DIESEL PORT ARTHUR FACILITY	TX-0905	EMERGENCY GENERATOR	0		limited to 100 hours per year of non-emergency operation	0	
11/9/2020	PLANT BARRY	AL-0328	Diesel Emergency Engines	0			3	GR/BHP-HR
12/18/2020	GRAYLING PARTICLEBOARD	MI-0448	Emergency diesel generator engine (EUEMRGRICE1 in FGRICE)	500	h/yr	Certified engines, limited operating hours	21.2	LB/H
12/18/2020	GRAYLING PARTICLEBOARD	MI-0448	Emergency diesel generator engine (EUEMRGRICE2 in FGRICE)	500	h/yr	Certified Engines, Limited Operating Hours	4.4	LB/H
12/18/2020	GRAYLING PARTICLEBOARD	MI-0448	Diesel fire pump engine (EUFIREPUMP in FGRICE)	500	h/yr	Certified Engines, Limited Operating Hours	3.53	LB/H
4/19/2021	NUCOR STEEL GALLATIN, LLC	KY-0115	New Pumphouse (XB13) Emergency Generator #1 (EP 08-05)	2922	HP	The permittee must develop a Good Combustion and Operating Practices (GCOP) Plan	0	
4/19/2021	NUCOR STEEL GALLATIN, LLC	KY-0115	Tunnel Furnace Emergency Generator (EP 08-06)	2937	HP	The permittee must develop a Good Combustion and Operating Practices (GCOP) Plan	0	
4/19/2021	NUCOR STEEL GALLATIN, LLC	KY-0115	Caster B Emergency Generator (EP 08-07)	2937	HP	The permittee must develop a Good Combustion and Operating Practices (GCOP) Plan	0	
4/19/2021	NUCOR STEEL GALLATIN, LLC	KY-0115	Air Separation Unit Emergency Generator (EP 08-08)	700	HP	The permittee must develop a Good Combustion and Operating Practices (GCOP) Plan	0	
6/7/2021	SHADY HILLS COMBINED CYCLE FACILITY	FL-0371	1,500 kW Emergency Diesel Generator	14.82	MMBtu/hour		6.4	G/KW-HOUR
11/17/2021	NACERO PENWELL FACILITY	TX-0933	Emergency Generators	0		limited to 100 hours per year of non-emergency operation. EPA Tier 2 (40 CFR Â§ 1039.101) exhaust emission standards	0	

RBLC Entries for Nitorgen Oxides Control from Emergency Engines

Date	Facility Name	RBLC ID	PROCESS NAME	THROUGHPUT	THROUGHPUT U	Control Method	Limit No. 1	Unit
1/5/2022	MAIDSVILLE	*WV-0033	Emergency Generator	2100	hp	Combustion Control (retarded timing and/or lean burn)	24.6	LB/HR
1/5/2022	MAIDSVILLE	*WV-0033	Fire Water Pump	240	bhp	Combustion control (retarded timing and/or lean burn)	1.59	LB/HR
5/6/2022	MIDWEST FERTILIZER COMPANY LLC	IN-0324	emergency generator EU 014a	3600	HP		4.42	G/HP-HR
6/3/2022	MAGNOLIA POWER GENERATING STATION UNIT 1	LA-0391	Emergency Diesel Generator Engine	2937	hp	Compliance with 40 CFR 60 Subpart IIII, good combustion practices, and use of ultra-low sulfur diesel fuel.	4.8	G/HP-HR
6/23/2022	MEC NORTH, LLC	MI-0451	EUEMENGINE (North Plant): Emergency engine	1341	HP	Good combustion practices and meeting NSPS Subpart IIII requirements.	6.4	G/KW-H
6/23/2022	MEC SOUTH, LLC	MI-0452	EUEMENGINE (South Plant): Emergency engine	1341	HP	Good Combustion Practices and meeting NSPS Subpart IIII requirements	6.4	G/KW-H
7/7/2022	LIQUEFACTION PLANT	AK-0088	Diesel Fire Pump Engine	27.9	Gal/hr	Good Combustion Practices; Limited Operation; 40 CFR 60 Subpart IIII	3.6	G/HP-HR
7/29/2022	LINCOLN LAND ENERGY CENTER	IL-0133	Emergency Engines	1250	kW		6.4	GRAMS
9/20/2022	INTEL OHIO SITE	OH-0387	5,051 bhp (3,768 kWm) Diesel-Fired Emergency Generators: P001 through P046	5051	HP	Certified to meet Tier 2 standards and good combustion practices	6.4	G/KW-H
11/21/2022	NUCOR STEEL ARKANSAS	AR-0177	SN-230 Galvanizing Line No, 2 Emergency Generator	3634	Horsepower		5.6	G/KW-HR
11/21/2022	NORFOLK CRUSH, LLC	NE-0064	Emergency Fire Water Pump Engine 1	510	hp		2.38	G/HP-HR
12/20/2022	LBWL-ERICKSON STATION	MI-0454	EUEMGD	4474.2	KW	Good combustion practices and will be NSPS compliant.	6.4	G/KW-H
3/14/2023	INEOS OLIGOMERS CHOCOLATE BAYOU	TX-0955	Engine Emergency Generator	0		TIER III ENGINE, OPERATIONS LIMITED TO 100 HRS/YR	3.9	G/HP HR
3/28/2023	COMMONWEALTH LNG FACILITY	LA-0324	Firewater Pump Engine (EQT0017 - EQT0020)	0		Compliance with 40 CFR 60 Subpart IIII and operating engines per manufacturers' instructions and written procedures designed to maximize combustion efficiency and minimize fuel usage.	5.53	G/KW-HR
3/28/2023	COMMONWEALTH LNG FACILITY	LA-0324	Generator Engines (EQT0016)	4290	kw	Compliance with 40 CFR 60 Subpart IIII and operating engines per manufacturers' instructions and written procedures designed to maximize combustion efficiency and minimize fuel usage.	8.46	G/KW-HR
3/30/2023	NUCOR STEEL	IN-0359	Emergency Generator (CC-GEN1)	3000	Horsepower	certified engine	4.8	G/HP-HR
4/28/2023	HYBAR LLC	AR-0180	Emergency Generators	0		Good Operating Practices, limited hours of operation, Compliance with NSPS Subpart IIII	3.9	G/BHP-HR
6/19/2023	MAPLE CREEK ENERGY LLC	*IN-0365	Emergency generator	2012	hp		4.8	G/HP-HR
6/19/2023	MAPLE CREEK ENERGY LLC	*IN-0365	Emergency fire pump	420	brake hp		4	G/KW-HR
9/19/2023	NEMADJI TRAIL ENERGY CENTER	*WI-0326	Emergency Generator	1490	HP	Good combustion practices and combusting clean fuels	4.8	G/HP-HR
12/12/2023	GEISMAR PLANT	*LA-0394	06-22 - AO-5 Emergency Generator	670.5	horsepower	Use of good combustion practices and compliance with NSPS Subpart IIII	4.24	LB/HR
12/12/2023	GEISMAR PLANT	*LA-0394	53-22 - PAO Emergency Generator	670.5	horsepower	Use of good combustion practices, compliance with NSPS Subpart IIII	4.24	LB/HR
12/20/2023	KOCH METHANOL (KME) FACILITY	*LA-0401	EGEN - Plant Emergency Generator	3634	horsepower	Compliance with 40 CFR 60 Subpart IIII	38.24	LB/HR
12/20/2023	KOCH METHANOL (KME) FACILITY	*LA-0401	E. GEN 01 - Generac SD 2000	2923	horsepower	Compliance with the requirements of 40 CFR 60 Subpart IIII	28.48	LB/HR
12/20/2023	KOCH METHANOL (KME) FACILITY	*LA-0401	E. GEN 02 - Generac SD 2000	2923	horsepower	Compliance with the requirements of 40 CFR 60 Subpart IIII	28.48	LB/HR
12/21/2023	CRONUS CHEMICALS	IL-0134	Emergency Generator Engine	3985	hp		6.4	G/KW-HR
1/11/2024	WABASH VALLEY RESOURCES, LLC	IN-0371	Emergency Generator (400 kW)	619	HP	Good Combustion Practices and meeting NSPS Subpart IIII requirements.	2.29	G/HP-HR
1/11/2024	WABASH VALLEY RESOURCES, LLC	IN-0371	Emergency Generator (1000 kW)	1000	kW	Good Combustion Practices and meeting NSPS Subpart IIII requirements.	3.81	G/HP-HR
1/11/2024	WABASH VALLEY RESOURCES, LLC	IN-0371	Emergency Generator (2000 kW)	2000	kW	Good Combustion Practices and meeting NSPS Subpart IIII requirements.	3.81	G/HP-HR
1/11/2024	WABASH VALLEY RESOURCES, LLC	IN-0371	Ammonia Plant Emergency Generator	500	kW	Good Combustion Practices and meeting NSPS Subpart IIII requirements.	4.8	G/HP-HR
6/27/2024	LANSING BOARD OF WATER AND LIGHT--DELTA ENERGY PARK	MI-0459	EUEMGEN	762	bhp		6.4	G/KW-H
7/24/2024	MCA GEIMAR SITE	*LA-0406	Diesel Emergency Generator (EQT0012)	1140	hp	Proper equipment design and good combustion practices. Use ultra-low sulfur diesel as fuel. Low emission combustion. Compliance with 40 CFR 60 Subpart IIII.	4.8	G/HP-HR
8/7/2024	BLUE LAKE	MN-0095	Emergency Generator 2 (EQUI 26)	1049	horsepower	Emergency classification, hourly restriction, and NSPS compliance	4.8	G/HP-HR

RBLC Entries for Nitorgen Oxides Control from Emergency Engines

Date	Facility Name	RBLC ID	PROCESS NAME	THROUGHPUT	THROUGHPUT U	Control Method	Limit No. 1	Unit
8/7/2024	BLUE LAKE	MN-0095	Emergency Generator 3 (EQUI 27)	1049	horsepower	Emergency classification, hourly restriction, and NSPS compliance	4.8	G/HP-HR
8/7/2024	BLUE LAKE	MN-0095	Emergency Generator 4 (EQUI 28)	1049	horsepower	Emergency classification, hourly restriction, and NSPS compliance	4.8	G/HP-HR
8/7/2024	BLUE LAKE	MN-0095	Emergency Generator 5 (EQUI 43)	772	horsepower	Emergency classification, hourly restriction, and NSPS compliance	4.8	G/HP-HR
8/7/2024	BLUE LAKE	MN-0095	Emergency Generator 6 (EQUI 43)	772	horsepower	Emergency classification, hourly restriction, and NSPS compliance	4.8	G/HP-HR
12/16/2024	SHINTECH PLAQUEMINE PLANT 4	*LA-0403	4C-6A - C/A Emergency Generator A	2346	horsepower	Compliance with 40 CFR 60 Subpart IIII	18.41	LB/HR
12/16/2024	SHINTECH PLAQUEMINE PLANT 4	*LA-0403	4C-6B - C/A Emergency Generator B	2346	horsepower	Compliance with 40 CFR 60 Subpart IIII	18.41	LB/HR
12/16/2024	SHINTECH PLAQUEMINE PLANT 4	*LA-0403	4C-6C - C/A Emergency Generator C	2346	horsepower	Compliance with 40 CFR 60 Subpart IIII	18.41	LB/HR
12/16/2024	SHINTECH PLAQUEMINE PLANT 4	*LA-0403	4U-7A - Fire Water Pump A	552	horsepower	Compliance with 40 CFR 60 Subpart IIII	2.71	LB/HR
12/16/2024	SHINTECH PLAQUEMINE PLANT 4	*LA-0403	4U-7B - Fire Water Pump B	552	horsepower	Compliance with 40 CFR 60 Subpart IIII	2.71	LB/HR
12/16/2024	SHINTECH PLAQUEMINE PLANT 4	*LA-0403	4U-7C - Fire Water Pump C	552	horsepower	Compliance with 40 CFR 60 Subpart IIII	2.71	LB/HR
12/16/2024	SHINTECH PLAQUEMINE PLANT 4	*LA-0403	4U-10 - Utility Emergency Generator	2012	horsepower	Compliance with 40 CFR 60 Subpart IIII	15.79	LB/HR
12/16/2024	SHINTECH PLAQUEMINE PLANT 4	*LA-0403	4U-12 - VCM/CA/UT CCR Emergency Generator	760	horsepower	Compliance with 40 CFR 60 Subpart IIII	5.97	LB/HR
12/16/2024	SHINTECH PLAQUEMINE PLANT 4	*LA-0403	4M-11A - VCM Emergency Generator A	2346	horsepower	Compliance with 40 CFR 60 Subpart IIII	18.41	LB/HR
12/16/2024	SHINTECH PLAQUEMINE PLANT 4	*LA-0403	4M-11B - VCM Emergency Generator B	2346	horsepower	Compliance with 40 CFR 60 Subpart IIII	18.41	LB/HR
3/31/2025	SYCAMORE RIVERSIDE ENERGY LLC	IN-0384	Black Start Emergency Generators	3000	kWe, each	GOOD COMBUSTION PRACTICES AND LOW SULFUR FUELS	4.56	G
3/31/2025	SYCAMORE RIVERSIDE ENERGY LLC	IN-0384	plant emergency generator	1500	kWe	good combustion practices and low sulfur fuel	4.56	G

RBLC Entries for Carbon Monoxide Control from Emergency Engines

Date	Facility Name	RBLC ID	PROCESS NAME	THROUGHPUT	THROUGHPUT U	Control Method	Limit No. 1	Unit
1/23/2015	POINT THOMSON PRODUCTION FACILITY	AK-0082	Emergency Camp Generators	2695	hp		2.6	GRAMS/HP-H
1/23/2015	POINT THOMSON PRODUCTION FACILITY	AK-0082	Fine Water Pumps	610	hp		2.6	GRAMS/HP-H
1/23/2015	POINT THOMSON PRODUCTION FACILITY	AK-0082	Bulk Tank Generator Engines	891	hp		2.6	GRAMS/HP-H
4/1/2015	PEONY CHEMICAL MANUFACTURING FACILITY	TX-0728	Emergency Diesel Generator	1500	hp	Minimized hours of operations Tier II engine	0.0126	G/HP HR
6/4/2015	BENTELER STEEL TUBE FACILITY	LA-0309	Emergency Generator Engines	2922	hp (each)	Complying with 40 CFR 60 Subpart IIII	0	
8/25/2015	CLEAN ENERGY FUTURE - LORDSTOWN, LLC	OH-0366	Emergency generator (P003)	2346	HP	State-of-the-art combustion design	13.5	LB/H
9/1/2015	MOXIE FREEDOM GENERATION PLANT	PA-0311	Fire Pump Engine	0			1	G/HP-HR
12/23/2015	LACKAWANNA ENERGY CTR/JESSUP	PA-0309	2000 kW Emergency Generator	0			0.6	GM/HP-HR
2/3/2016	CRICKET VALLEY ENERGY CENTER	NY-0103	Black start generator	3000	KW	Compliance demonstrated with vendor emission certification and adherence to vendor-specified maintenance recommendations.	2.6	G/BHP-H
3/9/2016	OKEECHOBEE CLEAN ENERGY CENTER	FL-0356	Three 3300-kW ULSD emergency generators	0		Use of clean engine	3.5	G / KW-HR
3/10/2016	PSEG FOSSIL LLC SEWAREN GENERATING STATION	NJ-0084	Diesel Fired Emergency Generator	44	H/YR	use of ultra low sulfur diesel oil a clean burning fuel	3.5	LB/H
3/21/2016	MAGNOLIA LNG FACILITY	LA-0307	Diesel Engines	0		good combustion practices, Use ultra low sulfur diesel, and comply with 40 CFR 60 Subpart IIII	0	
6/8/2016	BEAUMONT TERMINAL	TX-0799	Fire pump engines	0		Equipment specifications and good combustion practices. Operation limited to 100 hours per year.	0.0055	LB/HP-HR
6/17/2016	GREENSVILLE POWER STATION	VA-0325	DIESEL-FIRED EMERGENCY GENERATOR 3000 kW (1)	0		Good Combustion Practices/Maintenance	3.5	G/KW
6/30/2016	LAKE CHARLES METHANOL FACILITY	LA-0305	Diesel Engines (Emergency)	4023	hp	Complying with 40 CFR 60 Subpart IIII	0	
8/26/2016	GRAYLING PARTICLEBOARD	MI-0421	Emergency Diesel Generator Engine (EUEMRGRICE in FGRICE)	500	H/YR	Good design and combustion practices.	3.5	G/KW-H
8/26/2016	GRAYLING PARTICLEBOARD	MI-0421	Dieself fire pump engine (EUFIREPUMP in FGRICE)	500	H/YR	Good design and combustion practices.	3.5	G/KW-H
8/31/2016	ST. CHARLES POWER STATION	LA-0313	SCPS Emergency Diesel Generator 1	2584	HP	Compliance with NESHAP 40 CFR 63 Subpart ZZZZ and NSPS 40 CFR 60 Subpart IIII, and good combustion practices (use of ultra-low sulfur diesel fuel).	14.81	LB/H
9/2/2016	CPV FAIRVIEW ENERGY CENTER	PA-0310	Emergency Generator Engines	0			2.61	G/BHP-HR
9/23/2016	SOUTH FIELD ENERGY LLC	OH-0367	Emergency generator (P003)	2947	HP	State-of-the-art combustion design	16.96	LB/H
10/24/2016	FRITZ WINTER NORTH AMERICA, LP	KY-0109	Emergency Generators #1, #2, & #3 (EU72, EU73, & EU74)	53.6	gal/hr	The permittee shall prepare and maintain for EU72, EU73, and EU74, within 90 days of startup, a good combustion and operation practices plan (GCOP) that defines, measures and verifies the use of operational and design practices determined as BACT for minimizing CO, VOC, PM, PM10, and PM2.5 emissions. Any revisions requested by the Division shall be made and the plan shall be maintained on site. The permittee shall operate according to the provisions of this plan at all times, including periods of startup, shutdown, and malfunction. The plan shall be incorporated into the plant standard operating procedures (SOP) and shall be made available for the Divisionâ€™s inspection. The plan shall include, but not be limited to: i. A list of combustion optimization practices and a means of verifying the practices have occurred. ii. A list of combustion and operation practices to be used to lower energy consumption and a means of verifying the practices have occurred. iii. A list of the design choices determined to be BACT and verification that designs were implemented in the final construction.	2.6	G/HP-HR (EU72 &EU73)
12/22/2016	METHANEX - GEISMAR METHANOL PLANT	LA-0317	Emergency Generator Engines (4 units)	0		complying with 40 CFR 60 Subpart IIII and 40 CFR 63 Subpart ZZZZ	0	
12/22/2016	METHANEX - GEISMAR METHANOL PLANT	LA-0317	Firewater pump Engines (4 units)	896	hp (each)	complying with 40 CFR 60 Subpart IIII and 40 CFR 63 Subpart ZZZZ	0	
1/4/2017	INDECK NILES, LLC	MI-0423	EUEMENGINE (Diesel fuel emergency engine)	22.68	MMBTU/H	Good combustion practices and meeting NSPS Subpart IIII requirements.	3.5	G/KW-H
1/9/2017	MONSANTO LULING PLANT	LA-0323	Fire Water Diesel Pump No. 3 Engine	600	hp	Proper operation and limits on hours operation for emergency engines and compliance with 40 CFR 60 Subpart IIII	0	
1/9/2017	MONSANTO LULING PLANT	LA-0323	Fire Water Diesel Pump No. 4 Engine	600	hp	Proper operation and limits on hours of operation for emergency engines and compliance with 40 CFR 60 Subpart IIII	0	
2/17/2017	CAMERON LNG FACILITY	LA-0316	emergency generator engines (6 units)	3353	hp	Complying with 40 CFR 60 Subpart IIII	0	
3/23/2017	MIDWEST FERTILIZER COMPANY LLC	IN-0263	EMERGENCY GENERATORS (EU014A AND EU-014B)	3600	HP EACH	GOOD COMBUSTION PRACTICES	2.61	G/HP-H EACH
4/19/2017	PALLAS NITROGEN LLC	OH-0368	Emergency Generator (P009)	5000	HP	good combustion control and operating practices and engines designed to meet the stands of 40 CFR Part 60, Subpart IIII	28.8	LB/H
5/9/2017	GRAYLING PARTICLEBOARD	MI-0425	EUEMRGRICE1 in FGRICE (Emergency diesel generator engine)	500	H/YR	Good design and combustion practices.	3.5	G/KW-H
5/9/2017	GRAYLING PARTICLEBOARD	MI-0425	EUEMRGRICE2 in FGRICE (Emergency Diesel Generator Engine)	500	H/YR	Good design and combustion practices.	3.5	G/KW-H
5/9/2017	GRAYLING PARTICLEBOARD	MI-0425	EUFIREPUMP in FGRICE (Diesel fire pump engine)	500	H/YR	Good design and combustion practices.	3.5	G/KW-H
6/21/2017	MIT CENTRAL UTILITY PLANT	MA-0043	Cold Start Engine	19.04	MMBTU/HR		2.2	LB/HR
6/30/2017	DONLIN GOLD PROJECT	AK-0084	Black Start and Emergency Internal Cumbustion Engines	1500	kWe	Good Combustion Practices	4.38	G/KW-HR
6/30/2017	DONLIN GOLD PROJECT	AK-0084	Twelve (12) Large ULSD/Natural Gas-Fired Internal Combustion Engines	143.5	MMBtu/hr	Oxidation Catalyst and Maintain Good Combustion Practices	0.18	G/KW-HR (ULSD)
6/30/2017	ST. JAMES METHANOL PLANT	*LA-0312	DFP1-13 - Diesel Fire Pump Engine (EQT0013)	650	horsepower	Compliance with NSPS Subpart IIII	0.9	LB/HR
6/30/2017	ST. JAMES METHANOL PLANT	*LA-0312	DEG1-13 - Diesel Fired Emergency Generator Engine (EQT0012)	1474	horsepower	Compliance with NSPS Subpart IIII	0.51	LB/HR
7/27/2017	FIRST QUALITY TISSUE LOCK HAVEN PLT	*PA-0313	Emergency Generator	2500	bhp		3.5	G
9/7/2017	TRUMBULL ENERGY CENTER	OH-0370	Emergency generator (P003)	1529	HP	State-of-the-art combustion design	8.8	LB/H
9/27/2017	OREGON ENERGY CENTER	OH-0372	Emergency generator (P003)	1529	HP	State-of-the-art combustion design	8.8	LB/H

RBLC Entries for Carbon Monoxide Control from Emergency Engines

Date	Facility Name	RBLC ID	PROCESS NAME	THROUGHPUT	THROUGHPUT U	Control Method	Limit No. 1	Unit
10/23/2017	GUERNSEY POWER STATION LLC	OH-0374	Emergency Generators (2 identical, P004 and P005)	2206	HP	Certified to the meet the emissions standards in 40 CFR 89.112 and 89.113 pursuant to 40 CFR 60.4205(b) and 60.4202(a)(2). Good combustion practices per the manufacturerâ€™s operating manual.	12.69	LB/H
11/7/2017	LONG RIDGE ENERGY GENERATION LLC - HANNIBAL POWER	OH-0375	Emergency Diesel Generator Engine (P001)	2206	HP	Good combustion design	12.64	LB/H
11/7/2017	LONG RIDGE ENERGY GENERATION LLC - HANNIBAL POWER	OH-0375	Emergency Diesel Fire Pump Engine (P002)	700	HP	Good combustion design	4.01	LB/H
12/4/2017	DANIA BEACH ENERGY CENTER	FL-0363	Two 3300 kW emergency generators	0		Certified engine	3.5	GRAMS PER KWH
12/18/2017	TALLADEGA SAWMILL	AL-0318	250 Hp Emergency CI, Diesel-fired RICE	0			0	
2/9/2018	IRONUNITS LLC - TOLEDO HBI	OH-0376	Emergency diesel-fired generator (P007)	2682	HP	Comply with NSPS 40 CFR 60 Subpart IIII	15.4	LB/H
4/24/2018	SIO INTERNATIONAL WISCONSIN, INC. -ENERGY PLANT	WI-0284	Diesel-Fired Emergency Generators	0		Good Combustion Practices	0.6	G/KWH
4/24/2018	SIO INTERNATIONAL WISCONSIN, INC. -ENERGY PLANT	WI-0286	P42 -Diesel Fired Emergency Generator	0		Good Combustion Practices	0.6	G/KWH
4/26/2018	C4GT, LLC	VA-0328	Emergency Diesel GEN	500	H/YR	good combustion practices and the use of ultra low sulfur diesel (S15 ULSD) fuel oil with a maximum sulfur content of 15 ppmw.	2.6	G/HP H
6/29/2018	MEC NORTH, LLC AND MEC SOUTH LLC	MI-0433	EUEMENGINE (North Plant): Emergency Engine	1341	HP	Good combustion practices and meeting NSPS Subpart IIII requirements.	3.5	G/KW-H
6/29/2018	MEC NORTH, LLC AND MEC SOUTH LLC	MI-0433	EUEMENGINE (South Plant): Emergency Engine	1341	HP	Good combustion practices and meeting NSPS IIII requirements.	3.5	G/KW-H
7/16/2018	BELLE RIVER COMBINED CYCLE POWER PLANT	MI-0435	EUEMENGINE: Emergency engine	2	MW	State of the art combustion design.	3.5	G/KW-H
7/27/2018	SHADY HILLS COMBINED CYCLE FACILITY	FL-0367	1,500 kW Emergency Diesel Generator	14.82	MMBtu/hour	Operate and maintain the engine according to the manufacturer's written instructions	3.5	G/KW-HOUR
7/30/2018	CPV THREE RIVERS ENERGY CENTER	IL-0129	Emergency Engines	0			0	
9/21/2018	CALCASIEU PASS LNG PROJECT	LA-0331	Firewater Pumps	634	kW	Good Combustion and Operating Practices.	3.7	G/HP-H
9/21/2018	CALCASIEU PASS LNG PROJECT	LA-0331	Large Emergency Engines (>50kW)	5364	HP	Good Combustion and Operating Practices.	3.5	G/KW-H
12/21/2018	LBWL--ERICKSON STATION	MI-0441	EUEMGD1--A 1500 HP diesel fueled emergency engine	1500	HP	Good combustion practices and will be NSPS compliant.	3.5	G/KW-H
12/21/2018	LBWL--ERICKSON STATION	MI-0441	EUEMGD2--A 6000 HP diesel fuel fired emergency engine	6000	HP	Good combustion practices and will be NSPS compliant.	3.5	G/KW-H
12/21/2018	PTTGCA PETROCHEMICAL COMPLEX	OH-0378	Emergency Diesel-fired Generator Engine (P007)	3353	HP	certified to the meet the emissions standards in Table 4 of 40 CFR Part 60, Subpart IIII, shall employ good combustion practices per the manufacturerâ€™s operating manual	19.25	LB/H
12/21/2018	PTTGCA PETROCHEMICAL COMPLEX	OH-0378	1,000 kW Emergency Generators (P008 - P010)	1341	HP	certified to the meet the emissions standards in Table 4 of 40 CFR Part 60, Subpart IIII, shall employ good combustion practices per the manufacturerâ€™s operating manual	7.7	LB/H
12/31/2018	JACKSON ENERGY CENTER	IL-0130	Emergency Engine	1500	kW		3.5	G/KW-HR
4/25/2019	BIG LAKE FUELS METHANOL PLANT	LA-0382	Emergency Engines (EQT0014 - EQT0017)	0		Comply with standards of 40 CFR 60 Subpart IIII	0	
6/9/2019	BIG RIVER STEEL LLC	AR-0163	Emergency Engines	0		Good Operating Practices, limited hours of operation, Compliance with NSPS Subpart IIII	3.5	G/KW-HR
6/11/2019	RIVERVIEW ENERGY CORPORATION	IN-0317	Emergency generator EU-6006	2800	HP	Tier II diesel engine	3.5	G/KWH
6/11/2019	RIVERVIEW ENERGY CORPORATION	IN-0317	Emergency fire pump EU-6008	750	HP	Engine that complies with Table 4 to Subpart IIII of Part 60	3.5	G/KWH
6/24/2019	CHICKAHOMINY POWER LLC	VA-0332	Emergency Diesel Generator - 300 kW	500	H/YR	good combustion practices, high efficiency design, and the use of ultra low sulfur diesel (S15 ULSD) fuel oil with a maximum sulfur content of 15 ppmw.	2.6	G/HP-H
8/21/2019	THOMAS TOWNSHIP ENERGY, LLC	MI-0442	FGEMENGINE	1100	KW		0.15	G/HP-H
9/23/2019	SUN BIO MATERIAL COMPANY	AR-0161	Emergency Engines	0		Good Operating Practices, limited hours of operation, Compliance with NSPS Subpart IIII	3.5	G/KW-H
10/31/2019	CONDENSATE SPLITTER FACILITY	TX-0872	Emergency Generators	0		Limiting duration and frequency of generator use to 100 hr/yr. Good combustion practices will be used to reduce VOC including maintaining proper air-to-fuel ratio.	0.6	G/KW HR
11/26/2019	INDECK NILES, LLC	*MI-0445	EUEMENGINE (diesel fuel emergency engine)	22.68	MMBTU/H	Good Combustion Practices and meeting NSPS Subpart IIII requirements	3.5	G/KW-H
1/6/2020	FG LA COMPLEX	LA-0364	Emergency Generator Diesel Engines	550	hp	Compliance with the limitations imposed by 40 CFR 63 Subpart IIII and operating the engine in accordance with the engine manufacturer's instructions and/or written procedures designed to maximize combustion efficiency and minimize fuel usage.	0	
1/6/2020	FG LA COMPLEX	LA-0364	Emergency Fire Water Pumps	550	hp	Compliance with the limitations imposed by 40 CFR 63 Subpart IIII and operating the engine in accordance with the engine manufacturer's instructions and/or written procedures designed to maximize combustion efficiency and minimize fuel usage.	0	
2/6/2020	PORT ARTHUR ETHANE CRACKER UNIT	TX-0876	Emergency generator	0		Tier 4 exhaust emission standards specified in 40 CFR Â§ 1039.101, limited to 100 hours per year of non-emergency operation	0	
4/23/2020	ORANGE POLYETHYLENE PLANT	TX-0888	EMERGENCY GENERATORS & FIRE WATER PUMP ENGINES	0		well-designed and properly maintained engines and each limited to 100 hours per year of non-emergency use.	0	
7/17/2020	PETMIN USA INCORPORATED	OH-0383	Diesel-fired emergency fire pumps (2) (P009 and P010)	3131	HP	Tier IV NSPS standards certified by engine manufacturer.	0	
7/17/2020	PETMIN USA INCORPORATED	OH-0383	Emergency Generators (P005 and P006)	3131	HP	Tier IV engine Good combustion practices	0	
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 10-02 - North Water System Emergency Generator	2922	HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	2.61	G/HP-HR
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 10-03 - South Water System Emergency Generator	2922	HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	2.61	G/HP-HR
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 10-04 - Emergency Fire Water Pump	920	HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	2.61	G/HP-HR
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 10-07 - Air Separation Plant Emergency Generator	700	HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	2.61	G/HP-HR
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 10-01 - Caster Emergency Generator	2922	HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	2.61	G/HP-HR
8/13/2020	GAS TREATMENT PLANT	AK-0085	One (1) Black Start Generator Engine	186.6	gph	Oxidation Catalyst, Good Combustion Practices, and 500 hour limit per year.	3.3	G/HP-HR
9/1/2020	NEMADJI TRAIL ENERGY CENTER	WI-0300	Emergency Diesel Generator (P07)	1490	HP	Operation limited to 500 hours/year, and operate and maintain generator according to the manufacturerâ€™s recommendations.	2.6	G/HP-H
9/3/2020	LAKE CHARLES LNG EXPORT TERMINAL	LA-0383	Emergency Engines (EQT0011 - EQT0016)	0		Comply with 40 CFR 60 Subpart IIII	0	

RBLC Entries for Carbon Monoxide Control from Emergency Engines

Date	Facility Name	RBLC ID	PROCESS NAME	THROUGHPUT	THROUGHPUT U	Control Method	Limit No. 1	Unit
9/9/2020	MOTIVA POLYETHYLENE MANUFACTURING COMPLEX	TX-0904	EMERGENCY GENERATOR	0		100 HOURS OPERATIONS, Tier 4 exhaust emission standards specified in 40 CFR Â§ 1039.101	0	
9/16/2020	DIAMOND GREEN DIESEL PORT ARTHUR FACILITY	TX-0905	EMERGENCY GENERATOR	0		limited to 100 hours per year of non-emergency operation	0	
11/9/2020	PLANT BARRY	AL-0328	Diesel Emergency Engines	0			2.6	G/BHP-HR
12/18/2020	GRAYLING PARTICLEBOARD	MI-0448	Emergency diesel generator engine (EUEMRGRICE1 in FGRICE)	500	h/yr	Good design and combustion practices	3.5	G/KW-H
12/18/2020	GRAYLING PARTICLEBOARD	MI-0448	Emergency diesel generator engine (EUEMRGRICE2 in FGRICE)	500	h/yr	Good Design and Combustion Practices	3.5	G/KW-H
12/18/2020	GRAYLING PARTICLEBOARD	MI-0448	Diesel fire pump engine (EUFIREPUMP in FGRICE)	500	h/yr	Good Design and Combustion Practices	3.5	G/KW-H
1/7/2021	LBWL--ERICKSON STATION	MI-0447	EUEMGD--emergency engine	4474.2	KW	Good combustion practices and will be NSPS compliant.	3.5	G/KW-H
3/17/2021	UNIT 5	TX-0915	DIESEL GENERATOR	0		LIMITED 500 HR/YR OPERATION	2.61	G/HPHR
4/19/2021	NUCOR STEEL GALLATIN, LLC	KY-0115	New Pumphouse (XB13) Emergency Generator #1 (EP 08-05)	2922	HP	The permittee must develop a Good Combustion and Operating Practices (GCOP) Plan	0	
4/19/2021	NUCOR STEEL GALLATIN, LLC	KY-0115	Tunnel Furnace Emergency Generator (EP 08-06)	2937	HP	The permittee must develop a Good Combustion and Operating Practices (GCOP) Plan	0	
4/19/2021	NUCOR STEEL GALLATIN, LLC	KY-0115	Caster B Emergency Generator (EP 08-07)	2937	HP	The permittee must develop a Good Combustion and Operating Practices (GCOP) Plan	0	
4/19/2021	NUCOR STEEL GALLATIN, LLC	KY-0115	Air Separation Unit Emergency Generator (EP 08-08)	700	HP	The permittee must develop a Good Combustion and Operating Practices (GCOP) Plan	0	
6/7/2021	SHADY HILLS COMBINED CYCLE FACILITY	FL-0371	1,500 kW Emergency Diesel Generator	14.82	MMBtu/hour		3.5	G/KW-HOUR
11/17/2021	NACERO PENWELL FACILITY	TX-0933	Emergency Generators	0		limited to 100 hours per year of non-emergency operation. EPA Tier 2 (40 CFR Â§ 1039.101) exhaust emission standards	0	
1/5/2022	MAIDSVILLE	*WV-0033	Emergency Generator	2100	hp	Good Combustion Practices w/ OxCat. Applicant did not justify why an oxcat is infeasible for an emergency engine	1.94	LB/HR
1/5/2022	MAIDSVILLE	*WV-0033	Fire Water Pump	240	bhp	Good Combustion Practices w/ OxCat. Applicant did not justify why an oxcat is infeasible for an emergency engine	1.38	LB/HR
2/25/2022	LACC LLC US - ETHYLENE PLANT	LA-0388	Firewater Pump Engine No. 1 and 2	575	hp	Compliance with 40 CFR 60 Subpart IIII	3.97	LB/HR
5/6/2022	MIDWEST FERTILIZER COMPANY LLC	IN-0324	emergency generator EU 014a	3600	HP		2.61	G/HP-HR
6/3/2022	MAGNOLIA POWER GENERATING STATION UNIT 1	LA-0391	Emergency Diesel Generator Engine	2937	hp	Compliance with 40 CFR 60 Subpart IIII, good combustion practices, and the use of ultra-low sulfur diesel fuel.	2.6	G/HP-HR
6/23/2022	MEC NORTH, LLC	MI-0451	EUEMENGINE (North Plant): Emergency engine	1341	HP	Good combustion practices and meeting NSPS IIII requirements.	3.5	G/KW-H
6/23/2022	MEC SOUTH, LLC	MI-0452	EUEMENGINE (South Plant): Emergency engine	1341	HP	Good Combustion Practices and meeting NSPS Subpart IIII requirements	3.5	G/KW-H
7/7/2022	LIQUEFACTION PLANT	AK-0088	Diesel Fire Pump Engine	27.9	Gal/hr	Oxidation Catalyst; Limited Operation; 40 CFR 60 Subpart IIII	3.3	G/HP-HR
7/29/2022	LINCOLN LAND ENERGY CENTER	IL-0133	Emergency Engines	1250	kW		3.5	GRAMS
9/20/2022	INTEL OHIO SITE	OH-0387	5,051 bhp (3,768 kWm) Diesel-Fired Emergency Generators: P001 through P046	5051	HP	Certified to meet Tier 2 standards and good combustion practices	3.5	G/KW-H
11/21/2022	NUCOR STEEL ARKANSAS	AR-0177	SN-230 Galvanizing Line No, 2 Emergency Generator	3634	Horsepower		3.5	G/KW-HR
12/20/2022	LBWL-ERICKSON STATION	MI-0454	EUEMGD	4474.2	KW	Good combustion practices and will be NSPS compliant.	3.5	G/KW-H
3/13/2023	ORANGE COUNTY ADVANCED POWER STATION	TX-0939	EMERGENCY GENERATOR	18.7	MMBTU/HR	GOOD COMBUSTION PRACTICES, LIMITED TO 100 HR/YR	0.006	LB/HP HR
3/28/2023	COMMONWEALTH LNG FACILITY	LA-0324	Firewater Pump Engine (EQT0017 - EQT0020)	0		Compliance with 40 CFR 60 Subpart IIII and operating engines per manufacturers' instructions and written procedures designed to maximize combustion efficiency and minimize fuel usage.	0.55	G/KW-HR
3/28/2023	COMMONWEALTH LNG FACILITY	LA-0324	Generator Engines (EQT0016)	4290	kw	Compliance with 40 CFR 60 Subpart IIII and operating engines per manufacturers' instructions and written procedures designed to maximize combustion efficiency and minimize fuel usage.	1.21	G/KW-HR
3/30/2023	NUCOR STEEL	IN-0359	Emergency Generator (CC-GEN1)	3000	Horsepower	oxidation catalyst and certified engine	2.61	G/HP-HR
4/28/2023	HYBAR LLC	AR-0180	Emergency Generators	0		Good Operating Practices, limited hours of operation, Compliance with NSPS Subpart IIII	0.9	G/BHP-HR
6/19/2023	MAPLE CREEK ENERGY LLC	*IN-0365	Emergency generator	2012	hp		2.6	G/HP-HR
6/19/2023	MAPLE CREEK ENERGY LLC	*IN-0365	Emergency fire pump	420	brake hp		3.5	G/KW-HR
9/19/2023	NEMADJI TRAIL ENERGY CENTER	*WI-0326	Emergency Generator	1490	HP	Good combustion practices which include operational and design elements.	2.6	G/HP-HR
12/12/2023	GEISMAR PLANT	*LA-0394	06-22 - AO-5 Emergency Generator	670.5	horsepower	Use of good combustion practices and compliance with NSPS Subpart IIII	3.81	LB/HR
12/12/2023	GEISMAR PLANT	*LA-0394	53-22 - PAO Emergency Generator	670.5	horsepower	Use of good combustion practices, compliance with NSPS Subpart IIII	3.81	LB/HR
12/20/2023	KOCH METHANOL (KME) FACILITY	*LA-0401	EGEN - Plant Emergency Generator	3634	horsepower	Compliance with 40 CFR 60 Subpart IIII	20.91	LB/HR
12/20/2023	KOCH METHANOL (KME) FACILITY	*LA-0401	E. GEN 01 - Generac SD 2000	2923	horsepower	Compliance with the requirements of 40 CFR 60 Subpart IIII	2.9	LB/HR
12/20/2023	KOCH METHANOL (KME) FACILITY	*LA-0401	E. GEN 02 - Generac SD 2000	2923	horsepower	Compliance with the requirements of 40 CFR 60 Subpart IIII	2.9	LB/HR
12/21/2023	CRONUS CHEMICALS	IL-0134	Emergency Generator Engine	3985	hp		3.5	G/KW-HR
6/27/2024	LANSING BOARD OF WATER AND LIGHT--DELTA ENERGY PARK	MI-0459	EUEMGEN	762	bhp	Good combustion practices	3.5	G/KW-H
7/24/2024	MCA GEIMAR SITE	*LA-0406	Diesel Emergency Generator (EQT0012)	1140	hp	Proper equipment design and good combustion practices. Use ultra-low sulfur diesel as fuel. Low emission combustion. Compliance with 40 CFR 60 Subpart IIII.	2.6	G/HP-HR
8/7/2024	BLUE LAKE	MN-0095	Emergency Generator 2 (EQUI 26)	1049	horsepower	Emergency classification, hourly restriction, good combustion practices, and NSPS compliance	2.6	G/HP-HR
8/7/2024	BLUE LAKE	MN-0095	Emergency Generator 3 (EQUI 27)	1049	horsepower	Emergency classification, hourly restriction, good combustion practices, and NSPS compliance	2.6	G/HP-HR
8/7/2024	BLUE LAKE	MN-0095	Emergency Generator 4 (EQUI 28)	1049	horsepower	Emergency classification, hourly restriction, good combustion practices, and NSPS compliance	2.6	G/HP-HR
8/7/2024	BLUE LAKE	MN-0095	Emergency Generator 5 (EQUI 43)	772	horsepower	Emergency classification, hourly restriction, good combustion practices, and NSPS compliance	2.6	G/HP-HR

RBLC Entries for Carbon Monoxide Control from Emergency Engines

Date	Facility Name	RBLC ID	PROCESS NAME	THROUGHPUT	THROUGHPUT U	Control Method	Limit No. 1	Unit
8/7/2024	BLUE LAKE	MN-0095	Emergency Generator 6 (EQUI 43)	772	horsepower	Emergency classification, hourly restriction, good combustion practices, and NSPS compliance	2.6	G/HP-HR
12/16/2024	SHINTECH PLAQUEMINE PLANT 4	*LA-0403	4C-6A - C/A Emergency Generator A	2346	horsepower	Compliance with 40 CFR 60 Subpart IIII.	13.5	LB/HR
12/16/2024	SHINTECH PLAQUEMINE PLANT 4	*LA-0403	4C-6B - C/A Emergency Generator B	2346	horsepower	Compliance with 40 CFR 60 Subpart IIII	13.5	LB/HR
12/16/2024	SHINTECH PLAQUEMINE PLANT 4	*LA-0403	4C-6C - C/A Emergency Generator C	2346	horsepower	Compliance with 40 CFR 60 Subpart IIII	13.5	LB/HR
12/16/2024	SHINTECH PLAQUEMINE PLANT 4	*LA-0403	4U-7A - Fire Water Pump A	552	horsepower	Compliance with 40 CFR 60 Subpart IIII	2.71	LB/HR
12/16/2024	SHINTECH PLAQUEMINE PLANT 4	*LA-0403	4U-7B - Fire Water Pump B	552	horsepower	Compliance with 40 CFR 60 Subpart IIII	3.18	LB/HR
12/16/2024	SHINTECH PLAQUEMINE PLANT 4	*LA-0403	4U-7C - Fire Water Pump C	552	horsepower	Compliance with 40 CFR 60 Subpart IIII	3.18	LB/HR
12/16/2024	SHINTECH PLAQUEMINE PLANT 4	*LA-0403	4U-10 - Utility Emergency Generator	2012	horsepower	Compliance with 40 CFR 60 Subpart IIII	11.57	LB/HR
12/16/2024	SHINTECH PLAQUEMINE PLANT 4	*LA-0403	4U-12 - VCM/CA/UT CCR Emergency Generator	760	horsepower	Compliance with 40 CFR 60 Subpart IIII	4.37	LB/HR
12/16/2024	SHINTECH PLAQUEMINE PLANT 4	*LA-0403	4M-11A - VCM Emergency Generator A	2346	horsepower	Compliance with 40 CFR 60 Subpart IIII	13.5	LB/HR
12/16/2024	SHINTECH PLAQUEMINE PLANT 4	*LA-0403	4M-11B - VCM Emergency Generator B	2346	horsepower	Compliance with 40 CFR 60 Subpart IIII	13.5	LB/HR
2/14/2025	DUKE ENERGY INDIANA, INC.- CAYUGA GENERATING STATION	IN-0382	Emergency Generators	2000	HP	good combustion practices	2.61	G/HP-HR
3/31/2025	SYCAMORE RIVERSIDE ENERGY LLC	IN-0384	Black Start Emergency Generators	3000	kWe, each	Good combustion practices, low sulfur fuel, and limited operating hours	2.6	G
3/31/2025	SYCAMORE RIVERSIDE ENERGY LLC	IN-0384	plant emergency generator	1500	kWe	Good combustion practices, low sulfur fuel	2.6	G

RBLC Entries for PM_{10} Control from Emergency Engines

Date	Facility Name	RBLC ID	PROCESS NAME	THROUGHPUT	THROUGHPUT UNIT	Control Method	Limit No. 1	Unit
1/23/2015	POINT THOMSON PRODUCTION FACILITY	AK-0082	Emergency Camp Generators	2695	hp		0.15	GRAMS/HP-H
1/23/2015	POINT THOMSON PRODUCTION FACILITY	AK-0082	Fine Water Pumps	610	hp		0.15	GRAMS/HP-H
1/23/2015	POINT THOMSON PRODUCTION FACILITY	AK-0082	Bulk Tank Generator Engines	891	hp		0.15	GRAMS/HP-H
4/1/2015	PEONY CHEMICAL MANUFACTURING FACILITY	TX-0728	Emergency Diesel Generator	1500	hp	Minimized hours of operations Tier II engine	0.15	LB/H
6/4/2015	BENTELER STEEL TUBE FACILITY	LA-0309	Emergency Generator Engines	2922	hp (each)	Complying with 40 CFR 60 Subpart IIII	0.2	G/KW-HR
8/25/2015	CLEAN ENERGY FUTURE - LORDSTOWN, LLC	OH-0366	Emergency generator (P003)	2346	HP	State-of-the-art combustion design	0.77	LB/H
9/1/2015	MOXIE FREEDOM GENERATION PLANT	PA-0311	Fire Pump Engine	0			0.2	G/HP-HR
12/23/2015	LACKAWANNA ENERGY CTR/JESSUP	PA-0309	2000 kW Emergency Generator	0			0.025	GM/HP-HR
3/10/2016	PSEG FOSSIL LLC SEWAREN GENERATING STATION	NJ-0084	Diesel Fired Emergency Generator	44	H/YR	use of ULSD a clean burning fuel, and limited hours of operation	0.26	LB/H
3/21/2016	MAGNOLIA LNG FACILITY	LA-0307	Diesel Engines	0		good combustion practices, Use ultra low sulfur diesel, and comply with 40 CFR 60 Subpart IIII	0	
4/15/2016	MERCEDES BENZ VANS, LLC	SC-0193	Emergency Generators and Fire Pump	1500	hp	Must meet the standards of 40 CFR 60, Subpart IIII	100	HR/YR
6/17/2016	GREENSVILLE POWER STATION	VA-0325	DIESEL-FIRED EMERGENCY GENERATOR 3000 kW (1)	0		Ultra Low Sulfur Diesel/Fuel (15 ppm max)	0.4	G/KW
6/30/2016	LAKE CHARLES METHANOL FACILITY	LA-0305	Diesel Engines (Emergency)	4023	hp	Complying with 40 CFR 60 Subpart IIII	0	
8/26/2016	GRAYLING PARTICLEBOARD	MI-0421	Emergency Diesel Generator Engine (EUEMRGRICE in FGRICE)	500	H/YR	Certified engines, good design, operation and combustion practices. Operational restrictions/limited use.	1.41	LB/H
8/26/2016	GRAYLING PARTICLEBOARD	MI-0421	Dieself fire pump engine (EUFIREPUMP in FGRICE)	500	H/YR	Certified engines. Good design, operation and combustion practices. Operational restrictions/limited use.	0.18	LB/H
8/31/2016	ST. CHARLES POWER STATION	LA-0313	SCPS Emergency Diesel Generator 1	2584	HP	Compliance with NESHAP 40 CFR 63 Subpart ZZZZ and NSPS 40 CFR 60 Subpart IIII, and good combustion practices (use of ultra-low sulfur diesel fuel).	0.86	LB/H
9/23/2016	SOUTH FIELD ENERGY LLC	OH-0367	Emergency generator (P003)	2947	HP	State-of-the-art combustion design	0.97	LB/H
10/24/2016	FRITZ WINTER NORTH AMERICA, LP	KY-0109	Emergency Generators #1, #2, & #3 (EU72, EU73, & EU74)	53.6	gal/hr	The permittee shall prepare and maintain for EU72, EU73, and EU74, within 90 days of startup, a good combustion and operation practices plan (GCOP) that defines, measures and verifies the use of operational and design practices determined as BACT for minimizing CO, VOC, PM, PM10, and PM2.5 emissions. Any revisions requested by the Division shall be made and the plan shall be maintained on site. The permittee shall operate according to the provisions of this plan at all times, including periods of startup, shutdown, and malfunction. The plan shall be incorporated into the plant standard operating procedures (SOP) and shall be made available for the Divisionâ€™s inspection. The plan shall include, but not be limited to: i. A list of combustion optimization practices and a means of verifying the practices have occurred. ii. A list of combustion and operation practices to be used to lower energy consumption and a means of verifying the practices have occurred. iii. A list of the design choices determined to be BACT and verification that designs were implemented in the final construction.	0.149	G/HP-HR (EU72 &EU73)
12/22/2016	METHANEX - GEISMAR METHANOL PLANT	LA-0317	Emergency Generator Engines (4 units)	0		complying with 40 CFR 60 Subpart IIII and 40 CFR 63 Subpart ZZZZ	0	
12/22/2016	METHANEX - GEISMAR METHANOL PLANT	LA-0317	Firewater pump Engines (4 units)	896	hp (each)	complying with 40 CFR 60 Subpart IIII and 40 CFR 63 Subpart ZZZZ	0	
1/4/2017	INDECK NILES, LLC	MI-0423	EUEMENGINE (Diesel fuel emergency engine)	22.68	MMBTU/H	Good combustion practices.	1.58	LB/H
1/9/2017	MONSANTO LULING PLANT	LA-0323	Fire Water Diesel Pump No. 3 Engine	600	hp	Proper operation and limits on hours operation for emergency engines and compliance with 40 CFR 60 Subpart IIII	0	
1/9/2017	MONSANTO LULING PLANT	LA-0323	Fire Water Diesel Pump No. 4 Engine	600	hp	Proper operation and limits on hours of operation for emergency engines and compliance with 40 CFR 60 Subpart IIII	0	
2/17/2017	CAMERON LNG FACILITY	LA-0316	emergency generator engines (6 units)	3353	hp	Complying with 40 CFR 60 Subpart IIII	0	
3/23/2017	MIDWEST FERTILIZER COMPANY LLC	IN-0263	EMERGENCY GENERATORS (EU014A AND EU-014B)	3600	HP EACH	GOOD COMBUSTION PRACTICES	0.15	G/HP-H EACH
4/19/2017	PALLAS NITROGEN LLC	OH-0368	Emergency Generator (P009)	5000	HP	good combustion control and operating practices and engines designed to meet the stands of 40 CFR Part 60, Subpart IIII	0.2	LB/H
5/9/2017	GRAYLING PARTICLEBOARD	MI-0425	EUEMRGRICE1 in FGRICE (Emergency diesel generator engine)	500	H/YR	Certified engines, good design, operation and combustion practices. Operational restrictions/limited use.	0.66	LB/H
5/9/2017	GRAYLING PARTICLEBOARD	MI-0425	EUEMRGRICE2 in FGRICE (Emergency Diesel Generator Engine)	500	H/YR	Certified engines. Good design, operation and combustion practices. Operational restrictions/limited use.	0.22	LB/H
5/9/2017	GRAYLING PARTICLEBOARD	MI-0425	EUFIREPUMP in FGRICE (Diesel fire pump engine)	500	H/YR	Certified engines. Good design, operation and combustion practices. Operational restrictions/limited use.	0.18	LB/H
6/21/2017	MIT CENTRAL UTILITY PLANT	MA-0043	Cold Start Engine	19.04	MMBTU/HR		0.4	LB/HR
6/30/2017	DONLIN GOLD PROJECT	AK-0084	Black Start and Emergency Internal Cumbustion Engines	1500	kWe	Clean Fuel and Good Combustion Practices	0.25	G/KW-HR
6/30/2017	DONLIN GOLD PROJECT	AK-0084	Twelve (12) Large ULSD/Natural Gas-Fired Internal Combustion Engines	143.5	MMBtu/hr	Clean Fuel and Good Combustion Practices	0.29	G/KW-HR (ULSD)
6/30/2017	DONLIN GOLD PROJECT	AK-0084	Twelve (12) Large ULSD/Natural Gas-Fired Internal Combustion Engines	143.5	MMBtu/hr	Clean Fuel and Good Combustion Practices	0.15	G/KW-HR (ULSD)
6/30/2017	ST. JAMES METHANOL PLANT	*LA-0312	DFP1-13 - Diesel Fire Pump Engine (EQT0013)	650	horsepower	Compliance with NSPS Subpart IIII	0.15	LB/HR
6/30/2017	ST. JAMES METHANOL PLANT	*LA-0312	DEG1-13 - Diesel Fired Emergency Generator Engine (EQT0012)	1474	horsepower	Compliance with NSPS Subpart IIII	0.08	LB/HR
9/7/2017	TRUMBULL ENERGY CENTER	OH-0370	Emergency generator (P003)	1529	HP	Ultra low sulfur diesel fuel	0.5	LB/H
9/15/2017	INWOOD	WV-0027	Emergency Generator - ESDG14	900	bhp	ULSD	0.2	G/HP-HR
9/27/2017	OREGON ENERGY CENTER	OH-0372	Emergency generator (P003)	1529	HP	Ultra low sulfur diesel fuel	0.5	LB/H
10/23/2017	GUERNSEY POWER STATION LLC	OH-0374	Emergency Generators (2 identical, P004 and P005)	2206	HP	Certified to the meet the emissions standards in 40 CFR 89.112 and 89.113 pursuant to 40 CFR 60.4205(b) and 60.4202(a)(2). Good combustion practices per the manufacturerâ€™s operating manual.	0.73	LB/H

RBLC Entries for PM_{10} Control from Emergency Engines

Date	Facility Name	RBLC ID	PROCESS NAME	THROUGHPUT	THROUGHPUT UNIT	Control Method	Limit No. 1	Unit
11/7/2017	LONG RIDGE ENERGY GENERATION LLC - HANNIBAL POWER	OH-0375	Emergency Diesel Generator Engine (P001)	2206	HP	Good combustion design	0.73	LB/H
11/7/2017	LONG RIDGE ENERGY GENERATION LLC - HANNIBAL POWER	OH-0375	Emergency Diesel Fire Pump Engine (P002)	700	HP	Good combustion design	0.23	LB/H
12/18/2017	TALLADEGA SAWMILL	AL-0318	250 Hp Emergency CI, Diesel-fired RICE	0			0	
2/9/2018	IRONUNITS LLC - TOLEDO HBI	OH-0376	Emergency diesel-fired generator (P007)	2682	HP	Comply with NSPS 40 CFR 60 Subpart IIII	1.01	LB/H
4/19/2018	HARRISON POWER	OH-0377	Emergency Diesel Generator (P003)	1860	HP	Good combustion practices (ULSD) and compliance with 40 CFR Part 60, Subpart IIII	0.62	LB/H
4/24/2018	SIO INTERNATIONAL WISCONSIN, INC. -ENERGY PLANT	WI-0284	Diesel-Fired Emergency Generators	0		The Use of Ultra-Low Sulfur Fuel and Good Combustion Practices	0.17	G/KWH
4/24/2018	SIO INTERNATIONAL WISCONSIN, INC. -ENERGY PLANT	WI-0286	P42 -Diesel Fired Emergency Generator	0		Good Combustion Practices and The Use of Ultra-low Sulfur Fuel	0.17	G/KWH
4/26/2018	C4GT, LLC	VA-0328	Emergency Diesel GEN	500	H/YR	good combustion practices and the use of ultra low sulfur diesel (S15 ULSD) fuel oil with a maximum sulfur content of 15 ppmw.	0.15	G/HP H
6/29/2018	MEC NORTH, LLC AND MEC SOUTH LLC	MI-0433	EUEMENGINE (North Plant): Emergency Engine	1341	HP	Diesel particulate filter, good combustion practices and meeting NSPS Subpart IIII requirements.	0.54	LB/H
6/29/2018	MEC NORTH, LLC AND MEC SOUTH LLC	MI-0433	EUEMENGINE (South Plant): Emergency Engine	1341	HP	Diesel particulate filter, good combustion practices and meeting NSPS Subpart IIII requirements.	0.54	LB/H
7/16/2018	BELLE RIVER COMBINED CYCLE POWER PLANT	MI-0435	EUEMENGINE: Emergency engine	2	MW	State of the art combustion design	1.18	LB/H
9/21/2018	CALCASIEU PASS LNG PROJECT	LA-0331	Firewater Pumps	634	kW	Good combustion and operating practices.	0.3	G/HP-H
9/21/2018	CALCASIEU PASS LNG PROJECT	LA-0331	Large Emergency Engines (>50kW)	5364	HP	Good combustion and operating practices.	0.2	G/KW-H
12/21/2018	LBWL--ERICKSON STATION	MI-0441	EUEMGD1--A 1500 HP diesel fueled emergency engine	1500	HP	Good combustion practices, burn ultra-low sulfur diesel fuel and be NSPS compliant.	0.69	LB/H
12/21/2018	LBWL--ERICKSON STATION	MI-0441	EUEMGD2--A 6000 HP diesel fuel fired emergency engine	6000	HP	Good combustion practices, burn ultra low sulfur diesel fuel, and be NSPS compliant.	2.7	LB/H
12/21/2018	PTTGCA PETROCHEMICAL COMPLEX	OH-0378	Emergency Diesel-fired Generator Engine (P007)	3353	HP	certified to the meet the emissions standards in Table 4 of 40 CFR Part 60, Subpart IIII, shall employ good combustion practices per the manufacturerâ€™s operating manual	1.1	LB/H
12/21/2018	PTTGCA PETROCHEMICAL COMPLEX	OH-0378	1,000 kW Emergency Generators (P008 - P010)	1341	HP	certified to the meet the emissions standards in Table 4 of 40 CFR Part 60, Subpart IIII, shall employ good combustion practices per the manufacturerâ€™s operating manual	0.44	LB/H
2/6/2019	PETMIN USA INCORPORATED	OH-0379	Emergency Generators (P005 and P006)	3131	HP	Tier IV engine Good combustion practices	0.15	LB/H
4/25/2019	BIG LAKE FUELS METHANOL PLANT	LA-0382	Emergency Engines (EQT0014 - EQT0017)	0		Comply with standards of 40 CFR 60 Subpart IIII	0	
6/9/2019	BIG RIVER STEEL LLC	AR-0163	Emergency Engines	0		Good Operating Practices, limited hours of operation, Compliance with NSPS Subpart IIII	0.2	G/KW-HR
6/11/2019	RIVERVIEW ENERGY CORPORATION	IN-0317	Emergency generator EU-6006	2800	HP	Tier II diesel engine	0.2	G/KWH
6/11/2019	RIVERVIEW ENERGY CORPORATION	IN-0317	Emergency fire pump EU-6008	750	HP	Engine that complies with Table 4 to Subpart IIII of Part 60	0.2	G/KWH
6/24/2019	CHICKAHOMINY POWER LLC	VA-0332	Emergency Diesel Generator - 300 kW	500	H/YR	good combustion practices, high efficiency design, and the use of ultra low sulfur diesel (S15 ULSD) fuel oil with a maximum sulfur content of 15 ppmw.	0.15	G/HP-HR
8/21/2019	THOMAS TOWNSHIP ENERGY, LLC	MI-0442	FGEMENGINE	1100	KW	Good combustion practices and ultra low sulfur diesel	7.85	LB/1000 GAL
8/26/2019	CARDINAL FG COMPANY	WI-0294	P10- Diesel emergency Generator	0			0.05	G/BHP-H
9/23/2019	SUN BIO MATERIAL COMPANY	AR-0161	Emergency Engines	0		Good Operating Practices, limited hours of operation, Compliance with NSPS Subpart IIII	0.02	G/KW-H
11/26/2019	INDECK NILES, LLC	*MI-0445	EUEMENGINE (diesel fuel emergency engine)	22.68	MMBTU/H	Good combustion practices	1.58	LB/H
1/6/2020	FG LA COMPLEX	LA-0364	Emergency Generator Diesel Engines	550	hp	Compliance with the limitations imposed by 40 CFR 63 Subpart IIII and operating the engine in accordance with the engine manufacturer's instructions and/or written procedures designed to maximize combustion efficiency and minimize fuel usage.	0	
1/6/2020	FG LA COMPLEX	LA-0364	Emergency Fire Water Pumps	550	hp	Compliance with the limitations imposed by 40 CFR 63 Subpart IIII and operating the engine in accordance with the engine manufacturer's instructions and/or written procedures designed to maximize combustion efficiency and minimize fuel usage.	0	
2/6/2020	PORT ARTHUR ETHANE CRACKER UNIT	TX-0876	Emergency generator	0		Tier 4 exhaust emission standards specified in 40 CFR Â§ 1039.101, limited to 100 hours per year of non-emergency operation	0	
4/23/2020	ORANGE POLYETHYLENE PLANT	TX-0888	EMERGENCY GENERATORS & FIRE WATER PUMP ENGINES	0		well-designed and properly maintained engines and each limited to 100 hours per year of non-emergency use.	0	
7/17/2020	PETMIN USA INCORPORATED	OH-0383	Diesel-fired emergency fire pumps (2) (P009 and P010)	3131	HP	Tier IV engine and Good combustion practices	0.15	G/B-HP-H
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 10-02 - North Water System Emergency Generator	2922	HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	0.15	G/HP-HR
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 10-03 - South Water System Emergency Generator	2922	HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	0.15	G/HP-HR
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 10-04 - Emergency Fire Water Pump	920	HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	0.15	G/HP-HR
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 10-07 - Air Separation Plant Emergency Generator	700	HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	0.15	G/HP-HR
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 10-01 - Caster Emergency Generator	2922	HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	0.15	G/HP-HR
8/13/2020	GAS TREATMENT PLANT	AK-0085	One (1) Black Start Generator Engine	186.6	gph	Good combustion practices, ULSD, and limit operation to 500 hours per year.	0.045	G/HP-HR
9/1/2020	NEMADJI TRAIL ENERGY CENTER	WI-0300	Emergency Diesel Generator (P07)	1490	HP	Limited to operate 500 hours/year, sulfur content of the diesel fuel oil fired may not exceed 15 ppm, and operate and maintain according to the manufacturerâ€™s recommendations.	0.15	G/HP-H
9/3/2020	LAKE CHARLES LNG EXPORT TERMINAL	LA-0383	Emergency Engines (EQT0011 - EQT0016)	0		Comply with 40 CFR 60 Subpart IIII	0	

RBLC Entries for PM_{10} Control from Emergency Engines

Date	Facility Name	RBLC ID	PROCESS NAME	THROUGHPUT	THROUGHPUT UNIT	Control Method	Limit No. 1	Unit
9/9/2020	MOTIVA POLYETHYLENE MANUFACTURING COMPLEX	TX-0904	EMERGENCY GENERATOR	0		100 HOURS OPERATIONS, Tier 4 exhaust emission standards specified in 40 CFR Â§ 1039.101	0	
9/16/2020	DIAMOND GREEN DIESEL PORT ARTHUR FACILITY	TX-0905	EMERGENCY GENERATOR	0		limited to 100 hours per year of non-emergency operation	0	
12/9/2020	NORFOLK NAVAL SHIPYARD	VA-0333	One (1) emergency engine generator	2220	HP		1.1	LB
12/18/2020	GRAYLING PARTICLEBOARD	MI-0448	Emergency diesel generator engine (EUEMRGRICE1 in FGRICE)	500	h/yr	Certified Engines, Good Design, Operation, and Combustion Practices, Operational Restrictions/Limited Use	0.66	LB/H
12/18/2020	GRAYLING PARTICLEBOARD	MI-0448	Emergency diesel generator engine (EUEMRGRICE2 in FGRICE)	500	h/yr	Certified Engines, Good Design, Operation, and Combustion Practices, Operational Restrictions/Limited Use	0.22	LB/H
12/18/2020	GRAYLING PARTICLEBOARD	MI-0448	Diesel fire pump engine (EUFIREPUMP in FGRICE)	500	h/yr	Certified Engines, Good Design, Operation, and Combustion Practices, Operational Restrictions/Limited Use	0.18	LB/H
1/7/2021	LBWL--ERICKSON STATION	MI-0447	EUEMGD--emergency engine	4474.2	KW	Good combustion practices, burn ultra-low diesel fuel and be NSPS compliant.	1	LB/H
3/17/2021	UNIT 5	TX-0915	DIESEL GENERATOR	0		LIMITED 500 HR/YR OPERATION	0.022	G/HPHR
4/19/2021	NUCOR STEEL GALLATIN, LLC	KY-0115	New Pumphouse (XB13) Emergency Generator #1 (EP 08-05)	2922	HP	The permittee must develop a Good Combustion and Operating Practices (GCOP) Plan	0.15	G/HP-HR
4/19/2021	NUCOR STEEL GALLATIN, LLC	KY-0115	Tunnel Furnace Emergency Generator (EP 08-06)	2937	HP	The permittee must develop a Good Combustion and Operating Practices (GCOP) Plan	0.15	G/HP-HR
4/19/2021	NUCOR STEEL GALLATIN, LLC	KY-0115	Caster B Emergency Generator (EP 08-07)	2937	HP	The permittee must develop a Good Combustion and Operating Practices (GCOP) Plan	0.15	G/HP-HR
4/19/2021	NUCOR STEEL GALLATIN, LLC	KY-0115	Air Separation Unit Emergency Generator (EP 08-08)	700	HP	The permittee must develop a Good Combustion and Operating Practices (GCOP) Plan	0.15	G/HP-HR
11/17/2021	NACERO PENWELL FACILITY	TX-0933	Emergency Generators	0		limited to 100 hours per year of non-emergency operation. EPA Tier 2 (40 CFR Â§ 1039.101) exhaust emission standards	0	
2/25/2022	LACC LLC US - ETHYLENE PLANT	LA-0388	Firewater Pump Engine No. 1 and 2	575	hp	Compliance with 40 CFR 60 Subpart IIII	0.23	LB/HR
5/6/2022	MIDWEST FERTILIZER COMPANY LLC	IN-0324	emergency generator EU 014a	3600	HP		0.15	G/HP-HR
6/3/2022	MAGNOLIA POWER GENERATING STATION UNIT 1	LA-0391	Emergency Diesel Generator Engine	2937	hp	Compliance with 40 CFR 60 Subpart IIII, good combustion practices, and use of ultra-low sulfur diesel fuel.	0.15	G/HP-HR
6/23/2022	MEC NORTH, LLC	MI-0451	EUEMENGINE (North Plant): Emergency engine	1341	HP	Diesel particulate filter, good combustion practices and meeting NSPS Subpart IIII requirements.	0.54	LB/H
6/23/2022	MEC SOUTH, LLC	MI-0452	EUEMENGINE (South Plant): Emergency engine	1341	HP	Diesel particulate filter, Good Combustion Practices and meeting NSPS Subpart IIII requirements	0.54	LB/H
7/7/2022	LIQUEFACTION PLANT	AK-0088	Diesel Fire Pump Engine	27.9	Gal/hr	Good Combustion Practices; Limited Operation; 40 CFR 60 Subpart IIII	0.19	G/HP-HR
9/20/2022	INTEL OHIO SITE	OH-0387	5,051 bhp (3,768 kWm) Diesel-Fired Emergency Generators: P001 through P046	5051	HP	Certified to meet Tier 2 standards and good combustion practices	0.07	LB/H
11/21/2022	NUCOR STEEL ARKANSAS	AR-0177	SN-230 Galvanizing Line No, 2 Emergency Generator	3634	Horsepower		0.2	G/KW-HR
12/20/2022	LBWL-ERICKSON STATION	MI-0454	EUEMGD	4474.2	KW	Good combustion practices, burn ultra-low diesel fuel, and be NSPS compliant.	1	LB/H
3/13/2023	ORANGE COUNTY ADVANCED POWER STATION	TX-0939	EMERGENCY GENERATOR	18.7	MMBTU/HR	GOOD COMBUSTION PRACTICES, LIMITED TO 100 HR/YR	0.0003	LB/HP HR
3/28/2023	COMMONWEALTH LNG FACILITY	LA-0324	Firewater Pump Engine (EQT0017 - EQT0020)	0		Compliance with 40 CFR 60 Subpart IIII and operating engines per manufacturers' instructions and written procedures designed to maximize combustion efficiency and minimize fuel usage.	0.125	G/KW-HR
3/28/2023	COMMONWEALTH LNG FACILITY	LA-0324	Generator Engines (EQT0016)	4290	kw	Compliance with 40 CFR 60 Subpart IIII and operating engines per manufacturers' instructions and written procedures designed to maximize combustion efficiency and minimize fuel usage.	0.067	G/KW-HR
3/30/2023	NUCOR STEEL	IN-0359	Emergency Generator (CC-GEN1)	3000	Horsepower	certified engine	0.15	G/HP-H
4/28/2023	HYBAR LLC	AR-0180	Emergency Generators	0		Good Operating Practices, limited hours of operation, Compliance with NSPS Subpart IIII	0.1	G/BHP-HR
6/19/2023	MAPLE CREEK ENERGY LLC	*IN-0365	Emergency generator	2012	hp		0.15	G PER HP-HR
6/19/2023	MAPLE CREEK ENERGY LLC	*IN-0365	Emergency fire pump	420	brake hp		0.2	G/KW-HR)
12/12/2023	GEISMAR PLANT	*LA-0394	06-22 - AO-5 Emergency Generator	670.5	horsepower	Use of good combustion practices and compliance with NSPS Subpart IIII	0.22	LB/HR
12/12/2023	GEISMAR PLANT	*LA-0394	53-22 - PAO Emergency Generator	670.5	horsepower	Use of good combustion practices, compliance with NSPS Subpart IIII, and limiting non-emergency operation to no more than 100 hours per year	0.22	LB/HR
12/20/2023	KOCH METHANOL (KME) FACILITY	*LA-0401	EGEN - Plant Emergency Generator	3634	horsepower	Compliance with 40 CFR 60 Subpart IIII	1.19	LB/HR
12/20/2023	KOCH METHANOL (KME) FACILITY	*LA-0401	E. GEN 01 - Generac SD 2000	2923	horsepower	Compliance with the requirements of 40 CFR 60 Subpart IIII	0.84	LB/HR
12/20/2023	KOCH METHANOL (KME) FACILITY	*LA-0401	E. GEN 02 - Generac SD 2000	2923	horsepower	Compliance with the requirements of 40 CFR 60 Subpart IIII	0.84	LB/HR
12/21/2023	CRONUS CHEMICALS	IL-0134	Emergency Generator Engine	3985	hp		0.2	G/KW-HR
6/27/2024	LANSING BOARD OF WATER AND LIGHT--DELTA ENERGY PARK	MI-0459	EUEMGEN	762	bhp	Good combustion practices; use of ULSD.	0.3	LB/H
7/24/2024	MCA GEIMAR SITE	*LA-0406	Diesel Emergency Generator (EQT0012)	1140	hp	Proper equipment design and good combustion practices. Use ultra-low sulfur diesel as fuel. Compliance with 40 CFR 60 Subpart IIII.	0.15	G/HP-HR
8/7/2024	BLUE LAKE	MN-0095	Emergency Generator 2 (EQUI 26)	1049	horsepower	Emergency classification, hourly restriction, ULSD, and NSPS compliance	0.16	G/HP-HR
8/7/2024	BLUE LAKE	MN-0095	Emergency Generator 3 (EQUI 27)	1049	horsepower	Emergency classification, hourly restriction, ULSD, and NSPS compliance	0.16	G/HP-HR
8/7/2024	BLUE LAKE	MN-0095	Emergency Generator 4 (EQUI 28)	1049	horsepower	Emergency classification, hourly restriction, ULSD, and NSPS compliance	0.16	G/HP-HR
8/7/2024	BLUE LAKE	MN-0095	Emergency Generator 5 (EQUI 43)	772	horsepower	Emergency classification, hourly restriction, ULSD, and NSPS compliance	0.16	G/HP-HR
8/7/2024	BLUE LAKE	MN-0095	Emergency Generator 6 (EQUI 43)	772	horsepower	Emergency classification, hourly restriction, ULSD, and NSPS compliance	0.16	G/HP-HR
12/16/2024	SHINTECH PLAQUEMINE PLANT 4	*LA-0403	4C-6A - C/A Emergency Generator A	2346	horsepower	Compliance with 40 CFR 60 Subpart IIII	0.77	LB/HR
12/16/2024	SHINTECH PLAQUEMINE PLANT 4	*LA-0403	4C-6B - C/A Emergency Generator B	2346	horsepower	Compliance with 40 CFR 60 Subpart IIII	0.77	LB/HR
12/16/2024	SHINTECH PLAQUEMINE PLANT 4	*LA-0403	4C-6C - C/A Emergency Generator C	2346	horsepower	Compliance with 40 CFR 60 Subpart IIII	0.77	LB/HR
12/16/2024	SHINTECH PLAQUEMINE PLANT 4	*LA-0403	4U-7A - Fire Water Pump A	552	horsepower	Compliance with 40 CFR 60 Subpart IIII	0.18	LB/HR
12/16/2024	SHINTECH PLAQUEMINE PLANT 4	*LA-0403	4U-7B - Fire Water Pump B	552	horsepower	Compliance with 40 CFR 60 Subpart IIII	0.18	LB/HR
12/16/2024	SHINTECH PLAQUEMINE PLANT 4	*LA-0403	4U-7C - Fire Water Pump C	552	horsepower	Compliance with 40 CFR 60 Subpart IIII	0.18	LB/HR

RBLC Entries for PM_{10} Control from Emergency Engines

Date	Facility Name	RBLC ID	PROCESS NAME	THROUGHPUT	THROUGHPUT UNIT	Control Method	Limit No. 1	Unit
12/16/2024	SHINTECH PLAQUEMINE PLANT 4	*LA-0403	4U-10 - Utility Emergency Generator	2012	horsepower	Compliance with 40 CFR 60 Subpart IIII	0.66	LB/HR
12/16/2024	SHINTECH PLAQUEMINE PLANT 4	*LA-0403	4U-12 - VCM/CA/UT CCR Emergency Generator	760	horsepower	Compliance with 40 CFR 60 Subpart IIII	0.25	LB/HR
12/16/2024	SHINTECH PLAQUEMINE PLANT 4	*LA-0403	4M-11A - VCM Emergency Generator A	2346	horsepower	Compliance with 40 CFR 60 Subpart IIII	0.77	LB/HR
12/16/2024	SHINTECH PLAQUEMINE PLANT 4	*LA-0403	4M-11B - VCM Emergency Generator B	2346	horsepower	Compliance with 40 CFR 60 Subpart IIII	0.77	LB/HR
3/31/2025	SYCAMORE RIVERSIDE ENERGY LLC	IN-0384	Black Start Emergency Generators	3000	kWe, each	Good combustion practices, low sulfur fuel	0.17	G
3/31/2025	SYCAMORE RIVERSIDE ENERGY LLC	IN-0384	plant emergency generator	1500	kWe	Good combustion practices, low sulfur fuel	0.07	G

RBLC Entries for $PM_{2.5}$ Control from Emergency Engines

Date	Facility Name	RBLC ID	PROCESS NAME	THROUGHPUT	THROUGHPUT UNIT	Control Method	Limit No. 1	Unit
1/23/2015	POINT THOMSON PRODUCTION FACILITY	AK-0082	Emergency Camp Generators	2695	hp		0.15	GRAMS/HP-H
1/23/2015	POINT THOMSON PRODUCTION FACILITY	AK-0082	Fine Water Pumps	610	hp		0.15	GRAMS/HP-H
1/23/2015	POINT THOMSON PRODUCTION FACILITY	AK-0082	Bulk Tank Generator Engines	891	hp		0.15	GRAMS/HP-H
4/1/2015	PEONY CHEMICAL MANUFACTURING FACILITY	TX-0728	Emergency Diesel Generator	1500	hp	Minimized hours of operations Tier II engine	0.15	LB/H
6/4/2015	BENTELER STEEL TUBE FACILITY	LA-0309	Emergency Generator Engines	2922	hp (each)	Complying with 40 CFR 60 Subpart IIII	0.2	G/KW-HR
8/25/2015	CLEAN ENERGY FUTURE - LORDSTOWN, LLC	OH-0366	Emergency generator (P003)	2346	HP	State-of-the-art combustion design	0.77	LB/H
9/1/2015	MOXIE FREEDOM GENERATION PLANT	PA-0311	Fire Pump Engine	0			2	HP-HR
12/23/2015	LACKAWANNA ENERGY CTR/JESSUP	PA-0309	2000 kW Emergency Generator	0			0.025	GM/HP-HR
1/22/2016	HOLBROOK COMPRESSOR STATION	LA-0292	Emergency Generators No. 1 & No. 2	1341	HP	Use of a certified engine, low sulfur diesel, and limiting non-emergency use to no more than 100 hours per year	0.44	LB/HR
3/10/2016	PSEG FOSSIL LLC SEWAREN GENERATING STATION	NJ-0084	Diesel Fired Emergency Generator	44	H/YR	use of ULSD a clean burning fuel, and limited hours of operation	0.26	LB/H
3/21/2016	MAGNOLIA LNG FACILITY	LA-0307	Diesel Engines	0		good combustion practices, Use ultra low sulfur diesel, and comply with 40 CFR 60 Subpart IIII	0	
4/15/2016	MERCEDES BENZ VANS, LLC	SC-0193	Emergency Generators and Fire Pump	1500	hp	Meet the standards of 40 CFR 60, Subpart IIII	100	HR/YR
6/17/2016	GREENSVILLE POWER STATION	VA-0325	DIESEL-FIRED EMERGENCY GENERATOR 3000 kW (1)	0		Ultra Low Sulfur Diesel/Fuel (15 ppm max)	0.4	G/KR
6/30/2016	LAKE CHARLES METHANOL FACILITY	LA-0305	Diesel Engines (Emergency)	4023	hp	Complying with 40 CFR 60 Subpart IIII	0	
8/26/2016	GRAYLING PARTICLEBOARD	MI-0421	Emergency Diesel Generator Engine (EUEMRGRICE in FGRICE)	500	H/YR	Certified engines, good design, operation and combustion practices. Operational restrictions/limited use.	1.41	LB/H
8/26/2016	GRAYLING PARTICLEBOARD	MI-0421	Dieself fire pump engine (EUFIREPUMP in FGRICE)	500	H/YR	Certified engines. Good design, operation and combustion practices. Operational restrictions/limited use.	0.18	LB/H
8/31/2016	ST. CHARLES POWER STATION	LA-0313	SCPS Emergency Diesel Generator 1	2584	HP	Compliance with NESHAP 40 CFR 63 Subpart ZZZZ and NSPS 40 CFR 60 Subpart IIII, and good combustion practices (use of ultra-low sulfur diesel fuel).	0.86	LB/H
9/23/2016	SOUTH FIELD ENERGY LLC	OH-0367	Emergency generator (P003)	2947	HP	State-of-the-art combustion design	0.97	LB/H
10/24/2016	FRITZ WINTER NORTH AMERICA, LP	KY-0109	Emergency Generators #1, #2, & #3 (EU72, EU73, & EU74)	53.6	gal/hr	The permittee shall prepare and maintain for EU72, EU73, and EU74, within 90 days of startup, a good combustion and operation practices plan (GCOP) that defines, measures and verifies the use of operational and design practices determined as BACT for minimizing CO, VOC, PM, PM10, and PM2.5 emissions. Any revisions requested by the Division shall be made and the plan shall be maintained on site. The permittee shall operate according to the provisions of this plan at all times, including periods of startup, shutdown, and malfunction. The plan shall be incorporated into the plant standard operating procedures (SOP) and shall be made available for the Divisionâ€™s inspection. The plan shall include, but not be limited to: i. A list of combustion optimization practices and a means of verifying the practices have occurred. ii. A list of combustion and operation practices to be used to lower energy consumption and a means of verifying the practices have occurred. iii. A list of the design choices determined to be BACT and verification that designs were implemented in the final construction.	0.149	G/HP-HR (EU72 &EU73)
12/22/2016	METHANEX - GEISMAR METHANOL PLANT	LA-0317	Emergency Generator Engines (4 units)	0		complying with 40 CFR 60 Subpart IIII and 40 CFR 63 Subpart ZZZZ	0	
12/22/2016	METHANEX - GEISMAR METHANOL PLANT	LA-0317	Firewater pump Engines (4 units)	896	hp (each)	complying with 40 CFR 60 Subpart IIII and 40 CFR 63 Subpart ZZZZ	0	
1/4/2017	INDECK NILES, LLC	MI-0423	EUEMENGINE (Diesel fuel emergency engine)	22.68	MMBTU/H	Good combustion practices.	1.58	LB/H
1/9/2017	MONSANTO LULING PLANT	LA-0323	Fire Water Diesel Pump No. 3 Engine	600	hp	Proper operation and limits on hours operation for emergency engines and compliance with 40 CFR 60 Subpart IIII	0	
1/9/2017	MONSANTO LULING PLANT	LA-0323	Fire Water Diesel Pump No. 4 Engine	600	hp	Proper operation and limits on hours of operation for emergency engines and compliance with 40 CFR 60 Subpart IIII	0	
2/17/2017	CAMERON LNG FACILITY	LA-0316	emergency generator engines (6 units)	3353	hp	Complying with 40 CFR 60 Subpart IIII	0	
3/23/2017	MIDWEST FERTILIZER COMPANY LLC	IN-0263	EMERGENCY GENERATORS (EU014A AND EU-014B)	3600	HP EACH	GOOD COMBUSTION PRACTICES	0.15	G/HP-H EACH
4/19/2017	PALLAS NITROGEN LLC	OH-0368	Emergency Generator (P009)	5000	HP	good combustion control and operating practices and engines designed to meet the stands of 40 CFR Part 60, Subpart IIII	0.2	LB/H
5/9/2017	GRAYLING PARTICLEBOARD	MI-0425	EUEMRGRICE1 in FGRICE (Emergency diesel generator engine)	500	H/YR	Certified engines, good design, operation and combustion practices. Operational restrictions/limited use.	0.66	LB/H
5/9/2017	GRAYLING PARTICLEBOARD	MI-0425	EUEMRGRICE2 in FGRICE (Emergency Diesel Generator Engine)	500	H/YR	Certified engines. Good design, operation and combustion practices. Operational restrictions/limited use.	0.22	LB/H
5/9/2017	GRAYLING PARTICLEBOARD	MI-0425	EUFIREPUMP in FGRICE (Diesel fire pump engine)	500	H/YR	Certified engines. Good design, operation and combustion practices. Operational restrictions/limited use.	0.18	LB/H
6/21/2017	MIT CENTRAL UTILITY PLANT	MA-0043	Cold Start Engine	19.04	MMBTU/HR		0.4	LB/HR
6/30/2017	DONLIN GOLD PROJECT	AK-0084	Black Start and Emergency Internal Cumbustion Engines	1500	kWe	Clean Fuel and Good Combustion Practices	0.25	G/KW-HR
6/30/2017	DONLIN GOLD PROJECT	AK-0084	Twelve (12) Large ULSD/Natural Gas-Fired Internal Combustion Engines	143.5	MMBtu/hr	Clean Fuel and Good Combustion Practices	0.29	G/KW-HR (ULSD)
6/30/2017	DONLIN GOLD PROJECT	AK-0084	Twelve (12) Large ULSD/Natural Gas-Fired Internal Combustion Engines	143.5	MMBtu/hr	Clean Fuel and Good Combustion Practices	0.15	G/KW-HR (ULSD)
6/30/2017	ST. JAMES METHANOL PLANT	*LA-0312	DFP1-13 - Diesel Fire Pump Engine (EQT0013)	650	horsepower	Compliance with NSPS IIII	0.15	LB/HR
6/30/2017	ST. JAMES METHANOL PLANT	*LA-0312	DEG1-13 - Diesel Fired Emergency Generator Engine (EQT0012)	1474	horsepower	Compliance with NSPS Subpart IIII	0.08	LB/HR
9/7/2017	TRUMBULL ENERGY CENTER	OH-0370	Emergency generator (P003)	1529	HP	Ultra low sulfur diesel fuel	0.5	LB/H
9/27/2017	OREGON ENERGY CENTER	OH-0372	Emergency generator (P003)	1529	HP	Ultra low sulfur diesel fuel	0.5	LB/H
10/23/2017	GUERNSEY POWER STATION LLC	OH-0374	Emergency Generators (2 identical, P004 and P005)	2206	HP	Certified to the meet the emissions standards in 40 CFR 89.112 and 89.113 pursuant to 40 CFR 60.4205(b) and 60.4202(a)(2). Good combustion practices per the manufacturerâ€™s operating manual.	0.73	LB/H

RBLC Entries for $PM_{2.5}$ Control from Emergency Engines

Date	Facility Name	RBLC ID	PROCESS NAME	THROUGHPUT	THROUGHPUT UNIT	Control Method	Limit No. 1	Unit
11/7/2017	LONG RIDGE ENERGY GENERATION LLC - HANNIBAL POWER	OH-0375	Emergency Diesel Generator Engine (P001)	2206	HP	Good combustion design	0.73	LB/H
11/7/2017	LONG RIDGE ENERGY GENERATION LLC - HANNIBAL POWER	OH-0375	Emergency Diesel Fire Pump Engine (P002)	700	HP	Good combustion design	0.23	LB/H
12/18/2017	TALLADEGA SAWMILL	AL-0318	250 Hp Emergency CI, Diesel-fired RICE	0			0	
2/9/2018	IRONUNITS LLC - TOLEDO HBI	OH-0376	Emergency diesel-fired generator (P007)	2682	HP	Comply with NSPS 40 CFR 60 Subpart IIII	1.01	LB/H
4/19/2018	HARRISON POWER	OH-0377	Emergency Diesel Generator (P003)	1860	HP	Good combustion practices (ULSD) and compliance with 40 CFR Part 60, Subpart IIII	0.62	LB/H
4/24/2018	SIO INTERNATIONAL WISCONSIN, INC. -ENERGY PLANT	WI-0284	Diesel-Fired Emergency Generators	0		The Use of Ultra-Low Sulfur Fuel and Good Combustion Practices	0.17	G/KWH
4/24/2018	SIO INTERNATIONAL WISCONSIN, INC. -ENERGY PLANT	WI-0286	P42 -Diesel Fired Emergency Generator	0		Good Combustion Practices and The Use of Ultra-low Sulfur Fuel	0.17	G/KWH
4/26/2018	C4GT, LLC	VA-0328	Emergency Diesel GEN	500	H/YR	Good combustion practices and the use of ultra low sulfur diesel (S15 ULSD) fuel oil with a maximum sulfur content of 15 ppmw.	0.15	G/HP H
6/29/2018	MEC NORTH, LLC AND MEC SOUTH LLC	MI-0433	EUEMENGINE (North Plant): Emergency Engine	1341	HP	Diesel particulate filter, good combustion practices and meeting NSPS Subpart IIII requirements.	0.52	LB/H
6/29/2018	MEC NORTH, LLC AND MEC SOUTH LLC	MI-0433	EUEMENGINE (South Plant): Emergency Engine	1341	HP	Diesel particulate filter, good combustion practices and meeting NSPS Subpart IIII requirements.	0.52	LB/H
7/16/2018	BELLE RIVER COMBINED CYCLE POWER PLANT	MI-0435	EUEMENGINE: Emergency engine	2	MW	State of the art combustion design.	1.18	LB/H
9/21/2018	CALCASIEU PASS LNG PROJECT	LA-0331	Firewater Pumps	634	kW	Good combustion and operating practices.	0.3	G/HP-H
9/21/2018	CALCASIEU PASS LNG PROJECT	LA-0331	Large Emergency Engines (>50kW)	5364	HP	Good combustion and operating practices.	0.2	G/KW-H
12/21/2018	LBWL--ERICKSON STATION	MI-0441	EUEMGD1--A 1500 HP diesel fueled emergency engine	1500	HP	Ultra low-sulfur diesel fuel.	0.69	LB/H
12/21/2018	LBWL--ERICKSON STATION	MI-0441	EUEMGD2--A 6000 HP diesel fuel fired emergency engine	6000	HP	Ultra low sulfur diesel fuel.	2.7	LB/H
12/21/2018	PTTGCA PETROCHEMICAL COMPLEX	OH-0378	Emergency Diesel-fired Generator Engine (P007)	3353	HP	certified to the meet the emissions standards in Table 4 of 40 CFR Part 60, Subpart IIII, shall employ good combustion practices per the manufacturerâ€™s operating manual	1.1	LB/H
12/21/2018	PTTGCA PETROCHEMICAL COMPLEX	OH-0378	1,000 kW Emergency Generators (P008 - P010)	1341	HP	certified to the meet the emissions standards in Table 4 of 40 CFR Part 60, Subpart IIII, shall employ good combustion practices per the manufacturerâ€™s operating manual	0.44	LB/H
2/6/2019	PETMIN USA INCORPORATED	OH-0379	Emergency Generators (P005 and P006)	3131	HP	Tier IV engine Good combustion practices	0.15	LB/H
4/25/2019	BIG LAKE FUELS METHANOL PLANT	LA-0382	Emergency Engines (EQT0014 - EQT0017)	0		Comply with standards of 40 CFR 60 Subpart IIII	0	
6/9/2019	BIG RIVER STEEL LLC	AR-0163	Emergency Engines	0		Good Operating Practices, limited hours of operation, Compliance with NSPS Subpart IIII	0.2	G/KW-HR
6/11/2019	RIVERVIEW ENERGY CORPORATION	IN-0317	Emergency generator EU-6006	2800	HP	Tier II diesel engine	0.2	G/KWH
6/11/2019	RIVERVIEW ENERGY CORPORATION	IN-0317	Emergency fire pump EU-6008	750	HP	Engine that complies with Table 4 to Subpart IIII of Part 60	0.2	G/KWH
6/24/2019	CHICKAHOMINY POWER LLC	VA-0332	Emergency Diesel Generator - 300 kW	500	H/YR	good combustion practices, high efficiency design, and the use of ultra low sulfur diesel (S15 ULSD) fuel oil with a maximum sulfur content of 15 ppmw.	0.15	G/HP-HR
8/21/2019	THOMAS TOWNSHIP ENERGY, LLC	MI-0442	FGEMENGINE	1100	KW	Good combustion practices and ultra low sulfur diesel.	7.55	LB/1000 GAL
8/26/2019	CARDINAL FG COMPANY	WI-0294	P10- Diesel emergency Generator	0			0.05	G/BHP-H
9/23/2019	SUN BIO MATERIAL COMPANY	AR-0161	Emergency Engines	0		Good Operating Practices, limited hours of operation, Compliance with NSPS Subpart IIII	0.02	G/KW-HR
11/26/2019	INDECK NILES, LLC	*MI-0445	EUEMENGINE (diesel fuel emergency engine)	22.68	MMBTU/H	Good combustion practices	1.58	LB/H
1/6/2020	FG LA COMPLEX	LA-0364	Emergency Generator Diesel Engines	550	hp	Compliance with the limitations imposed by 40 CFR 63 Subpart IIII and operating the engine in accordance with the engine manufacturer's instructions and/or written procedures designed to maximize combustion efficiency and minimize fuel usage.	0	
1/6/2020	FG LA COMPLEX	LA-0364	Emergency Fire Water Pumps	550	hp	Compliance with the limitations imposed by 40 CFR 63 Subpart IIII and operating the engine in accordance with the engine manufacturer's instructions and/or written procedures designed to maximize combustion efficiency and minimize fuel usage.	0	
2/6/2020	PORT ARTHUR ETHANE CRACKER UNIT	TX-0876	Emergency generator	0		Tier 4 exhaust emission standards specified in 40 CFR Â§ 1039.101, limited to 100 hours per year of non-emergency operation	0	
4/23/2020	ORANGE POLYETHYLENE PLANT	TX-0888	EMERGENCY GENERATORS & FIRE WATER PUMP ENGINES	0		well-designed and properly maintained engines and each limited to 100 hours per year of non-emergency use.	0	
7/17/2020	PETMIN USA INCORPORATED	OH-0383	Diesel-fired emergency fire pumps (2) (P009 and P010)	3131	HP	Tier IV engine and Good combustion practices	0.15	G/B-HP-H
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 10-02 - North Water System Emergency Generator	2922	HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	0.15	G/HP-HR
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 10-03 - South Water System Emergency Generator	2922	HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	0.15	G/HP-HR
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 10-04 - Emergency Fire Water Pump	920	HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	0.15	G/HP-HR
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 10-07 - Air Separation Plant Emergency Generator	700	HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	0.15	G/HP-HR
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 10-01 - Caster Emergency Generator	2922	HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	0.15	G/HP-HR
8/13/2020	GAS TREATMENT PLANT	AK-0085	One (1) Black Start Generator Engine	186.6	gph	Good combustion practices, ULSD, and limit operation to 500 hours per year.	0.045	G/HP-HR
9/1/2020	NEMADJI TRAIL ENERGY CENTER	WI-0300	Emergency Diesel Generator (P07)	1490	HP	Limited to operate 500 hours/year, sulfur content of the diesel fuel oil fired may not exceed 15 ppm, and operate and maintain according to the manufacturerâ€™s recommendations.	0.15	G/HP-H
9/3/2020	LAKE CHARLES LNG EXPORT TERMINAL	LA-0383	Emergency Engines (EQT0011 - EQT0016)	0		Comply with 40 CFR 60 Subpart IIII	0	
9/9/2020	MOTIVA POLYETHYLENE MANUFACTURING COMPLEX	TX-0904	EMERGENCY GENERATOR	0		100 HOURS OPERATIONS, Tier 4 exhaust emission standards specified in 40 CFR Â§ 1039.101	0	
9/16/2020	DIAMOND GREEN DIESEL PORT ARTHUR FACILITY	TX-0905	EMERGENCY GENERATOR	0		limited to 100 hours per year of non-emergency operation	0	
12/9/2020	NORFOLK NAVAL SHIPYARD	VA-0333	One (1) emergency engine generator	2220	HP		1.1	LB
12/18/2020	GRAYLING PARTICLEBOARD	MI-0448	Emergency diesel generator engine (EUEMRGRICE1 in FGRICE)	500	h/yr	Certified Engines, Good Design, Operation, and Combustion Practices, Operational Restrictions/Limited Use	0.66	LB/H
12/18/2020	GRAYLING PARTICLEBOARD	MI-0448	Emergency diesel generator engine (EUEMRGRICE2 in FGRICE)	500	h/yr	Certified Engines, Good Design, Operation, and Combustion Practices, Operational Restrictions/Limited Use	0.22	LB/H
12/18/2020	GRAYLING PARTICLEBOARD	MI-0448	Diesel fire pump engine (EUFIREPUMP in FGRICE)	500	h/yr	Certified Engines, Good Design, Operation, and Combustion Practices, Operational Restrictions/Limited Use	0.18	LB/H
1/7/2021	LBWL--ERICKSON STATION	MI-0447	EUEMGD--emergency engine	4474.2	KW	ultra-low sulfur diesel fuel	1	LB/H
4/19/2021	NUCOR STEEL GALLATIN, LLC	KY-0115	New Pumphouse (XB13) Emergency Generator #1 (EP 08-05)	2922	HP	The permittee must develop a Good Combustion and Operating Practices (GCOP) Plan	0.15	G/HP-HR

RBLC Entries for $PM_{2.5}$ Control from Emergency Engines

Date	Facility Name	RBLC ID	PROCESS NAME	THROUGHPUT	THROUGHPUT UNIT	Control Method	Limit No. 1	Unit
4/19/2021	NUCOR STEEL GALLATIN, LLC	KY-0115	Tunnel Furnace Emergency Generator (EP 08-06)	2937	HP	The permittee must develop a Good Combustion and Operating Practices (GCOP) Plan	0.15	G/HP-HR
4/19/2021	NUCOR STEEL GALLATIN, LLC	KY-0115	Caster B Emergency Generator (EP 08-07)	2937	HP	The permittee must develop a Good Combustion and Operating Practices (GCOP) Plan	0.15	G/HP-HR
4/19/2021	NUCOR STEEL GALLATIN, LLC	KY-0115	Air Separation Unit Emergency Generator (EP 08-08)	700	HP	The permittee must develop a Good Combustion and Operating Practices (GCOP) Plan	0.15	G/HP-HR
11/17/2021	NACERO PENWELL FACILITY	TX-0933	Emergency Generators	0		limited to 100 hours per year of non-emergency operation. EPA Tier 2 (40 CFR Â§ 1039.101) exhaust emission standards	0	
2/25/2022	LACC LLC US - ETHYLENE PLANT	LA-0388	Firewater Pump Engine No. 1 and 2	575	hp	Compliance with 40 CFR 60 Subpart IIII	0.23	LB/HR
5/6/2022	MIDWEST FERTILIZER COMPANY LLC	IN-0324	emergency generator EU 014a	3600	HP		0.15	G/HP-HR
6/3/2022	MAGNOLIA POWER GENERATING STATION UNIT 1	LA-0391	Emergency Diesel Generator Engine	2937	hp	Compliance with 40 CFR 60 Subpart IIII (Tier 2 non-road engines) standards, good combustion practices, and the use of ultra-low sulfur diesel fuel.	0.15	G/HP-HR
6/23/2022	MEC NORTH, LLC	MI-0451	EUEMENGINE (North Plant): Emergency engine	1341	HP	Diesel particulate filter, good combustion practices and meeting NSPS Subpart IIII requirements.	0.52	LB/H
6/23/2022	MEC SOUTH, LLC	MI-0452	EUEMENGINE (South Plant): Emergency engine	1341	HP	Diesel particulate filter, Good Combustion Practices and meeting NSPS Subpart IIII requirements	0.52	LB/H
7/7/2022	LIQUEFACTION PLANT	AK-0088	Diesel Fire Pump Engine	27.9	Gal/hr	Good Combustion Practices; Limited Operation; 40 CFR 60 Subpart IIII	0.19	G/HP-HR
9/20/2022	INTEL OHIO SITE	OH-0387	5,051 bhp (3,768 kWm) Diesel-Fired Emergency Generators: P001 through P046	5051	HP	Certified to meet Tier 2 standards and good combustion practices	0.07	LB/H
11/21/2022	NUCOR STEEL ARKANSAS	AR-0177	SN-230 Galvanizing Line No, 2 Emergency Generator	3634	Horsepower		0.2	G/KW-HR
12/20/2022	LBWL-ERICKSON STATION	MI-0454	EUEMGD	4474.2	KW	Ultra-low sulfur diesel fuel	1	LB/H
3/13/2023	ORANGE COUNTY ADVANCED POWER STATION	TX-0939	EMERGENCY GENERATOR	18.7	MMBTU/HR	GOOD COMBUSTION PRACTICES, LIMITED TO 100 HR/YR	0.003	LB/HP HR
3/28/2023	COMMONWEALTH LNG FACILITY	LA-0324	Firewater Pump Engine (EQT0017 - EQT0020)	0		Compliance with 40 CFR 60 Subpart IIII and operating engines per manufacturers' instructions and written procedures designed to maximize combustion efficiency and minimize fuel usage.	0.125	G/KW-HR
3/28/2023	COMMONWEALTH LNG FACILITY	LA-0324	Generator Engines (EQT0016)	4290	kw	Compliance with 40 CFR 60 Subpart IIII and operating engines per manufacturers' instructions and written procedures designed to maximize combustion efficiency and minimize fuel usage.	0.067	G/KW-HR
3/30/2023	NUCOR STEEL	IN-0359	Emergency Generator (CC-GEN1)	3000	Horsepower	certified engine	0.15	G/HP-H
4/28/2023	HYBAR LLC	AR-0180	Emergency Generators	0		Good Operating Practices, limited hours of operation, Compliance with NSPS Subpart IIII	0.1	G/BHP-HR
6/19/2023	MAPLE CREEK ENERGY LLC	*IN-0365	Emergency generator	2012	hp		0.15	G/HP-HR
6/19/2023	MAPLE CREEK ENERGY LLC	*IN-0365	Emergency fire pump	420	brake hp		0.2	G/KW-HR
12/12/2023	GEISMAR PLANT	*LA-0394	06-22 - AO-5 Emergency Generator	670.5	horsepower	Use of good combustion practices and compliance with NSPS Subpart IIII	0.22	LB/HR
12/12/2023	GEISMAR PLANT	*LA-0394	53-22 - PAO Emergency Generator	670.5	horsepower	Use of good combustion practices, compliance with NSPS Subpart IIII, and limiting non-emergency operation to no more than 100 hours per year	0.22	LB/HR
12/20/2023	KOCH METHANOL (KME) FACILITY	*LA-0401	EGEN - Plant Emergency Generator	3634	horsepower	Compliance with 40 CFR 60 Subpart IIII	1.19	LB/HR
12/20/2023	KOCH METHANOL (KME) FACILITY	*LA-0401	E. GEN 01 - Generac SD 2000	2923	horsepower	Compliance with the requirements of 40 CFR 60 Subpart IIII	0.84	LB/HR
12/20/2023	KOCH METHANOL (KME) FACILITY	*LA-0401	E. GEN 02 - Generac SD 2000	2923	horsepower	Compliance with the requirements of 40 CFR 60 Subpart IIII	0.84	LB/HR
12/21/2023	CRONUS CHEMICALS	IL-0134	Emergency Generator Engine	3985	hp		0.2	G/KW-HR
6/27/2024	LANSING BOARD OF WATER AND LIGHT--DELTA ENERGY PARK	MI-0459	EUEMGEN	762	bhp	Good combustion practices, use of ULSD	0.3	LB/H
7/24/2024	MCA GEIMAR SITE	*LA-0406	Diesel Emergency Generator (EQT0012)	1140	hp	Proper equipment design and good combustion practices. Use ultra-low sulfur diesel as fuel. Compliance with 40 CFR 60 Subpart IIII.	0.15	G/HP-HR
8/7/2024	BLUE LAKE	MN-0095	Emergency Generator 2 (EQUI 26)	1049	horsepower	Emergency classification, hourly restriction, ULSD, and NSPS compliance	0.16	G/HP-HR
8/7/2024	BLUE LAKE	MN-0095	Emergency Generator 3 (EQUI 27)	1049	horsepower	Emergency classification, hourly restriction, ULSD, and NSPS compliance	0.16	G/HP-HR
8/7/2024	BLUE LAKE	MN-0095	Emergency Generator 4 (EQUI 28)	1049	horsepower	Emergency classification, hourly restriction, ULSD, and NSPS compliance	0.16	G/HP-HR
8/7/2024	BLUE LAKE	MN-0095	Emergency Generator 5 (EQUI 43)	772	horsepower	Emergency classification, hourly restriction, ULSD, and NSPS compliance	0.16	G/HP-HR
8/7/2024	BLUE LAKE	MN-0095	Emergency Generator 6 (EQUI 43)	772	horsepower	Emergency classification, hourly restriction, ULSD, and NSPS compliance	0.16	G/HP-HR
12/16/2024	SHINTECH PLAQUEMINE PLANT 4	*LA-0403	4C-6A - C/A Emergency Generator A	2346	horsepower	Compliance with 40 CFR 60 Subpart IIII	0.76	LB/HR
12/16/2024	SHINTECH PLAQUEMINE PLANT 4	*LA-0403	4C-6B - C/A Emergency Generator B	2346	horsepower	Compliance with 40 CFR 60 Subpart IIII	0.76	LB/HR
12/16/2024	SHINTECH PLAQUEMINE PLANT 4	*LA-0403	4C-6C - C/A Emergency Generator C	2346	horsepower	Compliance with 40 CFR 60 Subpart IIII	0.76	LB/HR
12/16/2024	SHINTECH PLAQUEMINE PLANT 4	*LA-0403	4U-7A - Fire Water Pump A	552	horsepower	Compliance with 40 CFR 60 Subpart IIII	0.18	LB/HR
12/16/2024	SHINTECH PLAQUEMINE PLANT 4	*LA-0403	4U-7B - Fire Water Pump B	552	horsepower	Compliance with 40 CFR 60 Subpart IIII	0.18	LB/HR
12/16/2024	SHINTECH PLAQUEMINE PLANT 4	*LA-0403	4U-7C - Fire Water Pump C	552	horsepower	Compliance with 40 CFR 60 Subpart IIII	0.18	LB/HR
12/16/2024	SHINTECH PLAQUEMINE PLANT 4	*LA-0403	4U-10 - Utility Emergency Generator	2012	horsepower	Compliance with 40 CFR 60 Subpart IIII	0.66	LB/HR
12/16/2024	SHINTECH PLAQUEMINE PLANT 4	*LA-0403	4U-12 - VCM/CA/UT CCR Emergency Generator	760	horsepower	Compliance with 40 CFR 60 Subpart IIII	0.25	LB/HR
12/16/2024	SHINTECH PLAQUEMINE PLANT 4	*LA-0403	4M-11A - VCM Emergency Generator A	2346	horsepower	Compliance with 40 CFR 60 Subpart IIII	0.76	LB/HR
12/16/2024	SHINTECH PLAQUEMINE PLANT 4	*LA-0403	4M-11B - VCM Emergency Generator B	2346	horsepower	Compliance with 40 CFR 60 Subpart IIII	0.76	LB/HR
3/31/2025	SYCAMORE RIVERSIDE ENERGY LLC	IN-0384	Black Start Emergency Generators	3000	kWe, each	Good combustion practices, low sulfur fuel	0.17	G
3/31/2025	SYCAMORE RIVERSIDE ENERGY LLC	IN-0384	plant emergency generator	1500	kWe	Good combustion practices, low sulfur fuel	0.07	G

RBLC Entries for Sulfur Dioxide Control from Emergency Engines

Date	Facility Name	RBLC ID	PROCESS NAME	THROUGHPUT	THROUGHPUT UNIT	Control Method	Limit No. 1	Unit
4/1/2015	PEONY CHEMICAL MANUFACTURING FACILITY	TX-0728	Emergency Diesel Generator	1500	hp	Low sulfur fuel 15 ppmw	0.61	LB/H
6/4/2015	BENTELER STEEL TUBE FACILITY	LA-0309	Emergency Generator Engines	2922	hp (each)		0	
3/9/2016	OKEECHOBEE CLEAN ENERGY CENTER	FL-0356	Three 3300-kW ULSD emergency generators	0		Use of ULSD	0.0015	% S IN ULSD
6/17/2016	GREENSVILLE POWER STATION	VA-0325	DIESEL-FIRED EMERGENCY GENERATOR 3000 kW (1)	0		Ultra Low Sulfur Diesel/Fuel (15 ppm max)	0.0015	LB/MMBTU
6/30/2016	LAKE CHARLES METHANOL FACILITY	LA-0305	Diesel Engines (Emergency)	4023	hp	Complying with 40 CFR 60 Subpart IIII	0	
9/23/2016	SOUTH FIELD ENERGY LLC	OH-0367	Emergency generator (P003)	2947	HP	Ultra low sulfur diesel fuel	0.03	LB/H
1/4/2017	INDECK NILES, LLC	MI-0423	EUEMENGINE (Diesel fuel emergency engine)	22.68	MMBTU/H	Good combustion practices and meeting NSPS Subpart IIII requirements.	15	PPM
6/21/2017	MIT CENTRAL UTILITY PLANT	MA-0043	Cold Start Engine	19.04	MMBTU/HR		0.029	LB/HR
9/7/2017	TRUMBULL ENERGY CENTER	OH-0370	Emergency generator (P003)	1529	HP	Ultra low sulfur diesel fuel	0.016	LB/H
9/27/2017	OREGON ENERGY CENTER	OH-0372	Emergency generator (P003)	1529	HP	Ultra low sulfur diesel fuel	0.016	LB/H
10/23/2017	GUERNSEY POWER STATION LLC	OH-0374	Emergency Generators (2 identical, P004 and P005)	2206	HP	ultra-low sulfur diesel (ULSD) fuel with a sulfur content of less than 15 ppm (0.0015 percent by weight)	0.0015	LB/MMBTU
12/4/2017	DANIA BEACH ENERGY CENTER	FL-0363	Two 3300 kW emergency generators	0		Clean fuel	15	PPM S IN FUEL
12/18/2017	TALLADEGA SAWMILL	AL-0318	250 Hp Emergency CI, Diesel-fired RICE	0			0	
4/19/2018	HARRISON POWER	OH-0377	Emergency Diesel Generator (P003)	1860	HP	ultra-low sulfur diesel (ULSD) fuel with a sulfur content of less than 15 ppm (0.0015 percent by weight)	0.0015	LB/MMBTU
4/24/2018	SIO INTERNATIONAL WISCONSIN, INC. -ENERGY PLANT	WI-0284	Diesel-Fired Emergency Generators	0		The Use of Ultra-Low Sulfur Fuel and Good Combustion Practices	0	
4/24/2018	SIO INTERNATIONAL WISCONSIN, INC. -ENERGY PLANT	WI-0286	P42 -Diesel Fired Emergency Generator	0		Good Combustion Practices and The Use of Ultra-low Sulfur Fuel	0	
4/26/2018	C4GT, LLC	VA-0328	Emergency Diesel GEN	500	H/YR	good combustion practices and the use of ultra low sulfur diesel (S15 ULSD) fuel oil with a maximum sulfur content of 15 ppmw.	0	
6/29/2018	MEC NORTH, LLC AND MEC SOUTH LLC	MI-0433	EUEMENGINE (North Plant): Emergency Engine	1341	HP	Good combustion practices and meeting NSPS Subpart IIII requirements.	15	PPM
6/29/2018	MEC NORTH, LLC AND MEC SOUTH LLC	MI-0433	EUEMENGINE (South Plant): Emergency Engine	1341	HP	Good combustion practices and meeting NSPS Subpart IIII requirements.	15	PPM
7/27/2018	SHADY HILLS COMBINED CYCLE FACILITY	FL-0367	1,500 kW Emergency Diesel Generator	14.82	MMBtu/hour	Clean fuel	15	PPM S IN FUEL
9/21/2018	CALCASIEU PASS LNG PROJECT	LA-0331	Firewater Pumps	634	kW	Ultra-Low Sulfur Diesel Fuel with Sulfur Content of 15 ppmv.	0.04	LB/GAL
9/21/2018	CALCASIEU PASS LNG PROJECT	LA-0331	Large Emergency Engines (>50kW)	5364	HP	Ultra-low sulfur diesel fuel with sulfur content of 15 ppmv.	0	LB/HP-H
6/9/2019	BIG RIVER STEEL LLC	AR-0163	Emergency Engines	0		Good Operating Practices, limited hours of operation, Compliance with NSPS Subpart IIII	0.0015	% SULFUR FUEL
6/11/2019	RIVERVIEW ENERGY CORPORATION	IN-0317	Emergency generator EU-6006	2800	HP	ULSD	15	PPM
6/11/2019	RIVERVIEW ENERGY CORPORATION	IN-0317	Emergency fire pump EU-6008	750	HP	Engine that complies with Table 4 to Subpart IIII of Part 60 fuel sulfur limitation	15	PPM
6/24/2019	CHICKAHOMINY POWER LLC	VA-0332	Emergency Diesel Generator - 300 kW	500	H/YR	good combustion practices, high efficiency design, and the use of ultra low sulfur diesel (S15 ULSD) fuel oil with a maximum sulfur content of 15 ppmw.	0.0015	LB/MMBTU
9/23/2019	SUN BIO MATERIAL COMPANY	AR-0161	Emergency Engines	0		Good Operating Practices, limited hours of operation, Compliance with NSPS Subpart IIII	0.007	G/KW-HR
11/26/2019	INDECK NILES, LLC	*MI-0445	EUEMENGINE (diesel fuel emergency engine)	22.68	MMBTU/H	Good Combustion Practices and meeting NSPS Subpart IIII requirements	15	PPM
1/6/2020	FG LA COMPLEX	LA-0364	Emergency Generator Diesel Engines	550	hp	Compliance with the limitations imposed by 40 CFR 63 Subpart IIII and operating the engine in accordance with the engine manufacturer's instructions and/or written procedures designed to maximize combustion efficiency and minimize fuel usage.	0	
1/6/2020	FG LA COMPLEX	LA-0364	Emergency Fire Water Pumps	550	hp	Compliance with the limitations imposed by 40 CFR 63 Subpart IIII and operating the engine in accordance with the engine manufacturer's instructions and/or written procedures designed to maximize combustion efficiency and minimize fuel usage.	0	
2/6/2020	PORT ARTHUR ETHANE CRACKER UNIT	TX-0876	Emergency generator	0		Tier 4 exhaust emission standards specified in 40 CFR Â§ 1039.101, limited to 100 hours per year of non-emergency operation	15	PPMW
4/23/2020	ORANGE POLYETHYLENE PLANT	TX-0888	EMERGENCY GENERATORS & FIRE WATER PUMP ENGINES	0		ultra-low sulfur diesel (15 ppmw sulfur content).	0	
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 10-02 - North Water System Emergency Generator	2922	HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	0	
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 10-03 - South Water System Emergency Generator	2922	HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	0	
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 10-04 - Emergency Fire Water Pump	920	HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	0	
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 10-07 - Air Separation Plant Emergency Generator	700	HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	0	
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 10-01 - Caster Emergency Generator	2922	HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	0	
8/13/2020	GAS TREATMENT PLANT	AK-0085	One (1) Black Start Generator Engine	186.6	gph	Good combustion practices, ULSD, and limit operation to 500 hours per year.	15	PPMW SULFUR IN FUEL
9/9/2020	MOTIVA POLYETHYLENE MANUFACTURING COMPLEX	TX-0904	EMERGENCY GENERATOR	0		100 HOURS OPERATIONS, Tier 4 exhaust emission standards specified in 40 CFR Â§ 1039.101	0	
11/9/2020	PLANT BARRY	AL-0328	Diesel Emergency Engines	0			15	PPM
12/15/2020	FORMOSA POINT COMFORT PLANT	TX-0911	EMERGENCY GENERATOR ENGINE	0		ULTRA LOW SULFUR FUEL	0	
6/7/2021	SHADY HILLS COMBINED CYCLE FACILITY	FL-0371	1,500 kW Emergency Diesel Generator	14.82	MMBtu/hour		15	PPM S IN FUEL
11/17/2021	NACERO PENWELL FACILITY	TX-0933	Emergency Generators	0		limited to 100 hours per year of non-emergency operation. EPA Tier 2 (40 CFR Â§ 1039.101) exhaust emission standards	0	
6/23/2022	MEC NORTH, LLC	MI-0451	EUEMENGINE (North Plant): Emergency engine	1341	HP	Good combustion practices and meeting NSPS Subpart IIII requirements.	15	PPM
6/23/2022	MEC SOUTH, LLC	MI-0452	EUEMENGINE (South Plant): Emergency engine	1341	HP	Good Combustion Practices and meeting NSPS Subpart IIII requirements	15	PPM
7/7/2022	LIQUEFACTION PLANT	AK-0088	Diesel Fire Pump Engine	27.9	Gal/hr	Good Combustion Practices; ULSD; Limited Operation;	15	PPMW SULFUR IN FUEL
7/29/2022	LINCOLN LAND ENERGY CENTER	IL-0133	Emergency Engines	1250	kW	Use of ultra-low sulfur diesel, with a sulfur content < 15 ppm sulfur.	0	
11/21/2022	NUCOR STEEL ARKANSAS	AR-0177	SN-230 Galvanizing Line No, 2 Emergency Generator	3634	Horsepower	Fuel Specification	15	PPM FUEL
3/28/2023	COMMONWEALTH LNG FACILITY	LA-0324	Firewater Pump Engine (EQT0017 - EQT0020)	0		Compliance with 40 CFR 60 Subpart IIII and operating engines per manufacturers' instructions and written procedures designed to maximize combustion efficiency and minimize fuel usage.	0.0015	LB/MM BTU

RBLC Entries for Sulfur Dioxide Control from Emergency Engines

Date	Facility Name	RBLC ID	PROCESS NAME	THROUGHPUT	THROUGHPUT UNIT	Control Method	Limit No. 1	Unit
3/28/2023	COMMONWEALTH LNG FACILITY	LA-0324	Generator Engines (EQT0016)	4290	kw	Compliance with 40 CFR 60 Subpart IIII and operating engines per manufacturers' instructions and written procedures designed to maximize combustion efficiency and minimize fuel usage.	0.0015	LB/MM BTU
3/30/2023	NUCOR STEEL	IN-0359	Emergency Generator (CC-GEN1)	3000	Horsepower	ultra-low sulfur diesel fuel (0.0015%S)	0	
4/28/2023	HYBAR LLC	AR-0180	Emergency Generators	0		Good Operating Practices, limited hours of operation, Compliance with NSPS Subpart IIII	15	PPM MAX FUEL CONTENT
6/19/2023	MAPLE CREEK ENERGY LLC	*IN-0365	Emergency generator	2012	hp		0.0016	LB PER MMBTU
6/19/2023	MAPLE CREEK ENERGY LLC	*IN-0365	Emergency fire pump	420	brake hp		0.0016	LB PER MMBTU

RBLC Entries for Volatile Organic Compounds Control from Emergency Engines

Date	Facility Name	RBLC ID	PROCESS NAME	THROUGHPUT	THROUGHPUT UNIT	Control Method	Limit No. 1	Unit
1/23/2015	POINT THOMSON PRODUCTION FACILITY	AK-0082	Emergency Camp Generators	2695	hp		0.0007	LB/HP-H
1/23/2015	POINT THOMSON PRODUCTION FACILITY	AK-0082	Fine Water Pumps	610	hp		0.0007	LB/HP-H
1/23/2015	POINT THOMSON PRODUCTION FACILITY	AK-0082	Bulk Tank Generator Engines	891	hp		0.0007	LB/HP-H
4/1/2015	PEONY CHEMICAL MANUFACTURING FACILITY	TX-0728	Emergency Diesel Generator	1500	hp	Minimized hours of operations Tier II engine	0.7	LB/H
6/4/2015	BENTELER STEEL TUBE FACILITY	LA-0309	Emergency Generator Engines	2922	hp (each)	Complying with 40 CFR 60 Subpart IIII	0	
8/25/2015	CLEAN ENERGY FUTURE - LORDSTOWN, LLC	OH-0366	Emergency generator (P003)	2346	HP		3.1	LB/H
9/1/2015	MOXIE FREEDOM GENERATION PLANT	PA-0311	Fire Pump Engine	0			0.2	G/HP-HR
12/23/2015	LACKAWANNA ENERGY CTR/JESSUP	PA-0309	2000 kW Emergency Generator	0			0.22	GM/HP-HR
1/22/2016	HOLBROOK COMPRESSOR STATION	LA-0292	Emergency Generators No. 1 & No. 2	1341	HP	Good combustion practices consistent with the manufacturer's recommendations to maximize fuel efficiency and minimize emissions	0.83	LB/HR
2/3/2016	CRICKET VALLEY ENERGY CENTER	NY-0103	Black start generator	3000	KW	Compliance demonstrated with vendor emission certification and adherence to vendor-specified maintenance recommendations.	0.11	G/BHP-H
3/10/2016	PSEG FOSSIL LLC SEWAREN GENERATING STATION	NJ-0084	Diesel Fired Emergency Generator	44	H/YR	use of ULSD a clean burning fuel, and limited hours of operation	1	LB/H
3/21/2016	MAGNOLIA LNG FACILITY	LA-0307	Diesel Engines	0		good combustion practices, Use ultra low sulfur diesel, and comply with 40 CFR 60 Subpart IIII	0	
4/15/2016	MERCEDES BENZ VANS, LLC	SC-0193	Emergency Generators and Fire Pump	1500	hp	Must meet the standards of 40 CFR 60, Subpart IIII	100	HR/YR
6/8/2016	BEAUMONT TERMINAL	TX-0799	Fire pump engines	0		Equipment specifications and good combustion practices. Operation limited to 100 hours per year.	0.0007	LB/HP-HR
6/17/2016	GREENSVILLE POWER STATION	VA-0325	DIESEL-FIRED EMERGENCY GENERATOR 3000 kW (1)	0		Good Combustion Practices/Maintenance	6.4	G/KW
8/31/2016	ST. CHARLES POWER STATION	LA-0313	SCPS Emergency Diesel Generator 1	2584	HP	Good combustion practices	27.34	LB/H
9/23/2016	SOUTH FIELD ENERGY LLC	OH-0367	Emergency generator (P003)	2947	HP	State-of-the-art combustion design	3.84	LB/H
10/24/2016	FRITZ WINTER NORTH AMERICA, LP	KY-0109	Emergency Generators #1, #2, & #3 (EU72, EU73, & EU74)	53.6	gal/hr	The permittee shall prepare and maintain for EU72, EU73, and EU74, within 90 days of startup, a good combustion and operation practices plan (GCOP) that defines, measures and verifies the use of operational and design practices determined as BACT for minimizing CO, VOC, PM, PM10, and PM2.5 emissions. Any revisions requested by the Division shall be made and the plan shall be maintained on site. The permittee shall operate according to the provisions of this plan at all times, including periods of startup, shutdown, and malfunction. The plan shall be incorporated into the plant standard operating procedures (SOP) and shall be made available for the Divisionâ€™s inspection. The plan shall include, but not be limited to: i. A list of combustion optimization practices and a means of verifying the practices have occurred. ii. A list of combustion and operation practices to be used to lower energy consumption and a means of verifying the practices have occurred. iii. A list of the design choices determined to be BACT and verification that designs were implemented in the final construction.	4.77	G/HP-HR (EU72 &EU73)
12/15/2016	BATON ROUGE JUNCTION FACILITY	LA-0276	Fire Pump Engines (2 units)	700	hp	Comply with standards of NSPS Subpart IIII	0	
1/4/2017	INDECK NILES, LLC	MI-0423	EUEMENGINE (Diesel fuel emergency engine)	22.68	MMBTU/H	Good combustion practices.	1.87	LB/H
2/17/2017	CAMERON LNG FACILITY	LA-0316	emergency generator engines (6 units)	3353	hp	Complying with 40 CFR 60 Subpart IIII	0	
3/23/2017	MIDWEST FERTILIZER COMPANY LLC	IN-0263	EMERGENCY GENERATORS (EU014A AND EU-014B)	3600	HP EACH	GOOD COMBUSTION PRACTICES	0.35	G/HP-H EACH
4/19/2017	PALLAS NITROGEN LLC	OH-0368	Emergency Generator (P009)	5000	HP	good combustion control and operating practices and engines designed to meet the stands of 40 CFR Part 60, Subpart IIII	1.6	LB/H
6/21/2017	MIT CENTRAL UTILITY PLANT	MA-0043	Cold Start Engine	19.04	MMBTU/HR		0.85	LB/HR
6/29/2017	WILDHORSE TERMINAL	OK-0175	Emergency Use Engines > 500 HP	0		Good combustion practices. Certified to meet EPA Tier 3 engine standards. Shall be limited to operate at no more than 500 hr/yr.	3	GM/HP-HR
6/30/2017	DONLIN GOLD PROJECT	AK-0084	Twelve (12) Large ULSD/Natural Gas-Fired Internal Combustion Engines	143.5	MMBtu/hr	Oxidation Catalyst and Good Combustion Practices	0.21	G/KW-HR (ULSD)
6/30/2017	ST. JAMES METHANOL PLANT	*LA-0312	DFP1-13 - Diesel Fire Pump Engine (EQT0013)	650	horsepower	Compliance with NNSPS Subpart IIII	0.13	LB/HR
6/30/2017	ST. JAMES METHANOL PLANT	*LA-0312	DEG1-13 - Diesel Fired Emergency Generator Engine (EQT0012)	1474	horsepower	Compliance with NSPS Subpart IIII	0.04	LB/HR
7/12/2017	PERDUE GRAIN AND OILSEED, LLC	VA-0327	Emergency Generator	0			0.49	LB/HR
7/27/2017	FIRST QUALITY TISSUE LOCK HAVEN PLT	*PA-0313	Emergency Generator	2500	bhp		3.5	G
9/7/2017	TRUMBULL ENERGY CENTER	OH-0370	Emergency generator (P003)	1529	HP	State-of-the-art combustion design	2	LB/H
9/27/2017	OREGON ENERGY CENTER	OH-0372	Emergency generator (P003)	1529	HP	State-of-the-art combustion design	2	LB/H
10/23/2017	GUERNSEY POWER STATION LLC	OH-0374	Emergency Generators (2 identical, P004 and P005)	2206	HP	Certified to the meet the emissions standards in 40 CFR 89.112 and 89.113 pursuant to 40 CFR 60.4205(b) and 60.4202(a)(2). Good combustion practices per the manufacturerâ€™s operating manual.	23.21	LB/H
11/7/2017	LONG RIDGE ENERGY GENERATION LLC - HANNIBAL POWER	OH-0375	Emergency Diesel Generator Engine (P001)	2206	HP	Good combustion design	24.71	LB/H
11/7/2017	LONG RIDGE ENERGY GENERATION LLC - HANNIBAL POWER	OH-0375	Emergency Diesel Fire Pump Engine (P002)	700	HP	Good combustion design	4.97	LB/H
12/18/2017	TALLADEGA SAWMILL	AL-0318	250 Hp Emergency CI, Diesel-fired RICE	0			0	
4/19/2018	HARRISON POWER	OH-0377	Emergency Diesel Generator (P003)	1860	HP	Good combustion practices (ULSD) and compliance with 40 CFR Part 60, Subpart IIII	19.68	LB/H
4/24/2018	SIO INTERNATIONAL WISCONSIN, INC. -ENERGY PLANT	WI-0284	Diesel-Fired Emergency Generators	0		Good Combustion Practices	0.56	G/KWH
4/24/2018	SIO INTERNATIONAL WISCONSIN, INC. -ENERGY PLANT	WI-0286	P42 -Diesel Fired Emergency Generator	0		Good Combustion Practices	0.56	G/KWH
6/29/2018	MEC NORTH, LLC AND MEC SOUTH LLC	MI-0433	EUEMENGINE (North Plant): Emergency Engine	1341	HP	Good combustion practices.	0.86	LB/H
6/29/2018	MEC NORTH, LLC AND MEC SOUTH LLC	MI-0433	EUEMENGINE (South Plant): Emergency Engine	1341	HP	Good combustion practices	0.86	LB/H
7/16/2018	BELLE RIVER COMBINED CYCLE POWER PLANT	MI-0435	EUEMENGINE: Emergency engine	2	MW	State of the art combustion design.	1.89	LB/H

RBLC Entries for Volatile Organic Compounds Control from Emergency Engines

Date	Facility Name	RBLC ID	PROCESS NAME	THROUGHPUT	THROUGHPUT UNIT	Control Method	Limit No. 1	Unit
9/21/2018	CALCASIEU PASS LNG PROJECT	LA-0331	Firewater Pumps	634	kW	Good combustion and operating practices.	0.44	G/HP-H
9/21/2018	CALCASIEU PASS LNG PROJECT	LA-0331	Large Emergency Engines (>50kW)	5364	HP	Good combustion and operating practices.	0.79	G/KW-H
12/21/2018	PTTGCA PETROCHEMICAL COMPLEX	OH-0378	Emergency Diesel-fired Generator Engine (P007)	3353	HP	certified to the meet the emissions standards in Table 4 of 40 CFR Part 60, Subpart IIII, shall employ good combustion practices per the manufacturerâ€™s operating manual	37.41	LB/H
12/21/2018	PTTGCA PETROCHEMICAL COMPLEX	OH-0378	1,000 kW Emergency Generators (P008 - P010)	1341	HP	certified to the meet the emissions standards in Table 4 of 40 CFR Part 60, Subpart IIII, shall employ good combustion practices per the manufacturerâ€™s operating manual	14.96	LB/H
4/25/2019	BIG LAKE FUELS METHANOL PLANT	LA-0382	Emergency Engines (EQT0014 - EQT0017)	0		Comply with standards of 40 CFR 60 Subpart IIII	0	
6/9/2019	BIG RIVER STEEL LLC	AR-0163	Emergency Engines	0		Good Operating Practices, limited hours of operation, Compliance with NSPS Subpart IIII	1.55	G/KW-HR
6/11/2019	RIVERVIEW ENERGY CORPORATION	IN-0317	Emergency generator EU-6006	2800	HP	Tier II diesel engine	6.4	G/KWH
6/11/2019	RIVERVIEW ENERGY CORPORATION	IN-0317	Emergency fire pump EU-6008	750	HP	Engine that complies with Table 4 to Subpart IIII of Part 60	4	G/KWH
8/21/2019	THOMAS TOWNSHIP ENERGY, LLC	MI-0442	FGEMENGINE	1100	KW		0.86	LB/H
9/11/2019	WILDHORSE TERMINAL	OK-0181	EMERGENCY USE ENGINES > 500 HP	0		Good combustion practices. Certified to meet EPA Tier 3 engine standards. Each engine shall be limited to operate not more than 500 hours per year.	3	GM/HP-HR
9/23/2019	SUN BIO MATERIAL COMPANY	AR-0161	Emergency Engines	0		Good Operating Practices, limited hours of operation, Compliance with NSPS Subpart IIII	1.9	G/KW-HR
10/31/2019	CONDENSATE SPLITTER FACILITY	TX-0872	Emergency Generators	0		Limiting duration and frequency of generator use to 100 hr/yr. Good combustion practices will be used to reduce VOC including maintaining proper air-to-fuel ratio.	0.12	G/KW HR
12/10/2019	GREEN BAY PACKAGING- MILL DIVISION	WI-0297	Diesel-Fired Emergency Fire Pump (P36)	510	HP		200	H/Y
1/6/2020	FG LA COMPLEX	LA-0364	Emergency Generator Diesel Engines	550	hp	Compliance with the limitations imposed by 40 CFR 63 Subpart IIII and operating the engine in accordance with the engine manufacturer's instructions and/or written procedures designed to maximize combustion efficiency and minimize fuel usage.	0	
1/6/2020	FG LA COMPLEX	LA-0364	Emergency Fire Water Pumps	550	hp	Compliance with the limitations imposed by 40 CFR 63 Subpart IIII and operating the engine in accordance with the engine manufacturer's instructions and/or written procedures designed to maximize combustion efficiency and minimize fuel usage.	0	
2/6/2020	PORT ARTHUR ETHANE CRACKER UNIT	TX-0876	Emergency generator	0		Tier 4 exhaust emission standards specified in 40 CFR Â§ 1039.101, limited to 100 hours per year of non-emergency operation	0	
2/19/2020	MOTIVA PORT ARTHUR TERMINAL	TX-0879	Emergency Firewater Engine	0		Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs/yr of non-emergency operation. Have a non-resettable runtime meter.	0.1	G/HP HR
4/23/2020	ORANGE POLYETHYLENE PLANT	TX-0888	EMERGENCY GENERATORS & FIRE WATER PUMP ENGINES	0		well-designed and properly maintained engines and each limited to 100 hours per year of non-emergency use.	0	
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 10-02 - North Water System Emergency Generator	2922	HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	0	
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 10-03 - South Water System Emergency Generator	2922	HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	0	
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 10-04 - Emergency Fire Water Pump	920	HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	0	
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 10-07 - Air Separation Plant Emergency Generator	700	HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	0	
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 10-01 - Caster Emergency Generator	2922	HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	0	
8/13/2020	GAS TREATMENT PLANT	AK-0085	One (1) Black Start Generator Engine	186.6	gph	Oxidation Catalyst, Good combustion practices, and limit operation to 500 hours per year.	0.18	G/HP-HR
9/1/2020	NEMADJI TRAIL ENERGY CENTER	WI-0300	Emergency Diesel Generator (P07)	1490	HP	Operation limited to 500 hours/year and operate and maintain generator according to the manufacturerâ€™s recommendations	0.32	G/HP-H
9/3/2020	LAKE CHARLES LNG EXPORT TERMINAL	LA-0383	Emergency Engines (EQT0011 - EQT0016)	0		Comply with 40 CFR 60 Subpart IIII	0	
9/9/2020	MOTIVA POLYETHYLENE MANUFACTURING COMPLEX	TX-0904	EMERGENCY GENERATOR	0		100 HOURS OPERATIONS, Tier 4 exhaust emission standards specified in 40 CFR Â§ 1039.101	0	
9/16/2020	DIAMOND GREEN DIESEL PORT ARTHUR FACILITY	TX-0905	EMERGENCY GENERATOR	0		limited to 100 hours per year of non-emergency operation	0	
3/17/2021	UNIT 5	TX-0915	DIESEL GENERATOR	0		LIMITED 500 HR/YR OPERATION	0.5	G/HPHR
11/17/2021	NACERO PENWELL FACILITY	TX-0933	Emergency Generators	0		limited to 100 hours per year of non-emergency operation. EPA Tier 2 (40 CFR Â§ 1039.101) exhaust emission standards	0	
1/5/2022	MAIDSVILLE	*WV-0033	Emergency Generator	2100	hp	Good Combustion Practices w/ OxCat. Applicant did not justify why an oxcat is infeasible for an emergency engine	0.46	LB/HR
1/5/2022	MAIDSVILLE	*WV-0033	Fire Water Pump	240	bhp	Good Combustion Practices w/ OxCat. Applicant did not justify why an oxcat is infeasible for an emergency engine	1.59	LB/HR
2/25/2022	LACC LLC US - ETHYLENE PLANT	LA-0388	Firewater Pump Engine No. 1 and 2	575	hp	Compliance with 40 CFR 60 Subpart IIII	0.32	LB/HR
5/6/2022	MIDWEST FERTILIZER COMPANY LLC	IN-0324	emergency generator EU 014a	3600	HP		0.35	G/HP-HR
5/10/2022	DERIDDER SAWMILL	LA-0390	GEN-1 - Emergency Generator No. 1	750	horsepower	Good combustion practices and maintenance and compliance with applicable 40 CFR 60 Subpart JJJJ limitation for VOC.	1.98	LB/HR
5/10/2022	DERIDDER SAWMILL	LA-0390	GEN-2 - Emergency Generator No. 2	750	horsepower	Good combustion practices and maintenance and compliance with applicable 40 CFR 60 Subpart JJJJ limitation for VOC	1.98	LB/HR
6/3/2022	MAGNOLIA POWER GENERATING STATION UNIT 1	LA-0391	Emergency Diesel Generator Engine	2937	hp	Compliance with 40 CFR 60 Subpart IIII standards, good combustion practices, and the use of ultra-low sulfur diesel fuel.	4.8	G/HP-HR
6/23/2022	MEC NORTH, LLC	MI-0451	EUEMENGINE (North Plant): Emergency engine	1341	HP	Good combustion practices	0.86	LB/H
6/23/2022	MEC SOUTH, LLC	MI-0452	EUEMENGINE (South Plant): Emergency engine	1341	HP	Good combustion practices.	0.86	LB/H
7/7/2022	LIQUEFACTION PLANT	AK-0088	Diesel Fire Pump Engine	27.9	Gal/hr	Oxidation Catalyst; Limited Operation; 40 CFR 60 Subpart IIII	0.19	G/HP-HR
9/20/2022	INTEL OHIO SITE	OH-0387	5,051 bhp (3,768 kWm) Diesel-Fired Emergency Generators: P001 through P046	5051	HP	Certified to meet Tier 2 standards and good combustion practices	0.4	G/KW-H
11/21/2022	NUCOR STEEL ARKANSAS	AR-0177	SN-230 Galvanizing Line No, 2 Emergency Generator	3634	Horsepower		0.8	G/KW-HR
11/21/2022	NORFOLK CRUSH, LLC	NE-0064	Emergency Fire Water Pump Engine 1	510	hp		0.62	G/HP-HR
3/13/2023	ORANGE COUNTY ADVANCED POWER STATION	TX-0939	EMERGENCY GENERATOR	18.7	MMBTU/HR	GOOD COMBUSTION PRACTICES, LIMITED TO 100 HR/YR	0.001	LB/HP HR
3/14/2023	INEOS OLIGOMERS CHOCOLATE BAYOU	TX-0955	Engine Emergency Generator	0		TIER III	0	
3/28/2023	COMMONWEALTH LNG FACILITY	LA-0324	Firewater Pump Engine (EQT0017 - EQT0020)	0		Compliance with 40 CFR 60 Subpart IIII and operating engines per manufacturers' instructions and written procedures designed to maximize combustion efficiency and minimize fuel usage.	0.4	G/KW-HR

RBLC Entries for Volatile Organic Compounds Control from Emergency Engines

Date	Facility Name	RBLC ID	PROCESS NAME	THROUGHPUT	THROUGHPUT UNIT	Control Method	Limit No. 1	Unit
3/28/2023	COMMONWEALTH LNG FACILITY	LA-0324	Generator Engines (EQT0016)	4290	kw	Compliance with 40 CFR 60 Subpart IIII and operating engines per manufacturers' instructions and written procedures designed to maximize combustion efficiency and minimize fuel usage.	0.322	G/KW-HR
3/30/2023	NUCOR STEEL	IN-0359	Emergency Generator (CC-GEN1)	3000	Horsepower	certified engine	0.32	G/HP-HR
9/19/2023	NEMADJI TRAIL ENERGY CENTER	*WI-0326	Emergency Generator	1490	HP	Good combustion practices include operational and design elements.	0.32	G/HP-HR
12/12/2023	GEISMAR PLANT	*LA-0394	06-22 - AO-5 Emergency Generator	670.5	horsepower	Use of good combustion practices and compliance with NSPS Subpart IIII	0.11	LB/HR
12/12/2023	GEISMAR PLANT	*LA-0394	53-22 - PAO Emergency Generator	670.5	horsepower	Use of good combustion practices, compliance with NSPS Subpart IIII	0.11	LB/HR
12/20/2023	KOCH METHANOL (KME) FACILITY	*LA-0401	EGEN - Plant Emergency Generator	3634	horsepower	Compliance with 40 CFR 60 Subpart IIII	2.29	LB/HR
12/20/2023	KOCH METHANOL (KME) FACILITY	*LA-0401	E. GEN 01 - Generac SD 2000	2923	horsepower	Compliance with the requirements of 40 CFR 60 Subpart IIII	2.06	LB/HR
12/20/2023	KOCH METHANOL (KME) FACILITY	*LA-0401	E. GEN 02 - Generac SD 2000	2923	horsepower	Compliance with the requirements of 40 CFR 60 Subpart IIII	2.06	LB/HR
12/21/2023	CRONUS CHEMICALS	IL-0134	Emergency Generator Engine	3985	hp		6.4	G/KW-HR
6/27/2024	LANSING BOARD OF WATER AND LIGHT--DELTA ENERGY PARK	MI-0459	EUEMGEN	762	bhp	Good combustion practices	6.4	G/KW-H
7/24/2024	MCA GEIMAR SITE	*LA-0406	Diesel Emergency Generator (EQT0012)	1140	hp	Proper equipment design and good combustion practices. Use ultra-low sulfur diesel as fuel. Compliance with 40 CFR 60 Subpart IIII.	4.8	G/HP-HR
8/7/2024	BLUE LAKE	MN-0095	Emergency Generator 2 (EQUI 26)	1049	horsepower	Emergency classification, hourly restriction, good combustion practices, and NSPS compliance	4.8	G/HP-HR
8/7/2024	BLUE LAKE	MN-0095	Emergency Generator 3 (EQUI 27)	1049	horsepower	Emergency classification, hourly restriction, good combustion practices, and NSPS compliance	4.8	G/HP-HR
8/7/2024	BLUE LAKE	MN-0095	Emergency Generator 4 (EQUI 28)	1049	horsepower	Emergency classification, hourly restriction, good combustion practices, and NSPS compliance	4.8	G/HP-HR
8/7/2024	BLUE LAKE	MN-0095	Emergency Generator 5 (EQUI 43)	772	horsepower	Emergency classification, hourly restriction, good combustion practices, and NSPS compliance	4.8	G/HP-HR
8/7/2024	BLUE LAKE	MN-0095	Emergency Generator 6 (EQUI 43)	772	horsepower	Emergency classification, hourly restriction, good combustion practices, and NSPS compliance	4.8	G/HP-HR
12/16/2024	SHINTECH PLAQUEMINE PLANT 4	*LA-0403	4C-6A - C/A Emergency Generator A	2346	horsepower	Compliance with 40 CFR 60 Subpart IIII	6.27	LB/HR
12/16/2024	SHINTECH PLAQUEMINE PLANT 4	*LA-0403	4C-6B - C/A Emergency Generator B	2346	horsepower	Compliance with 40 CFR 60 Subpart IIII	6.27	LB/HR
12/16/2024	SHINTECH PLAQUEMINE PLANT 4	*LA-0403	4C-6C - C/A Emergency Generator C	2346	horsepower	Compliance with 40 CFR 60 Subpart IIII	6.27	LB/HR
12/16/2024	SHINTECH PLAQUEMINE PLANT 4	*LA-0403	4U-7A - Fire Water Pump A	552	horsepower	Compliance with 40 CFR 60 Subpart IIII	0.92	LB/HR
12/16/2024	SHINTECH PLAQUEMINE PLANT 4	*LA-0403	4U-7B - Fire Water Pump B	552	horsepower	Compliance with 40 CFR 60 Subpart IIII	0.92	LB/HR
12/16/2024	SHINTECH PLAQUEMINE PLANT 4	*LA-0403	4U-7C - Fire Water Pump C	552	horsepower	Compliance with 40 CFR 60 Subpart IIII	0.92	LB/HR
12/16/2024	SHINTECH PLAQUEMINE PLANT 4	*LA-0403	4U-10 - Utility Emergency Generator	2012	horsepower	Compliance with 40 CFR 60 Subpart IIII	5.38	LB/HR
12/16/2024	SHINTECH PLAQUEMINE PLANT 4	*LA-0403	4U-12 - VCM/CA/UT CCR Emergency Generator	760	horsepower	Compliance with 40 CFR 60 Subpart IIII	2.03	LB/HR
12/16/2024	SHINTECH PLAQUEMINE PLANT 4	*LA-0403	4M-11A - VCM Emergency Generator A	2346	horsepower	Compliance with 40 CFR 60 Subpart IIII	6.27	LB/HR
12/16/2024	SHINTECH PLAQUEMINE PLANT 4	*LA-0403	4M-11B - VCM Emergency Generator B	2346	horsepower	Compliance with 40 CFR 60 Subpart IIII	6.27	LB/HR
2/14/2025	DUKE ENERGY INDIANA, INC.- CAYUGA GENERATING STATION	IN-0382	Emergency Generators	2000	HP		6.4	G/KW-HR
3/31/2025	SYCAMORE RIVERSIDE ENERGY LLC	IN-0384	Black Start Emergency Generators	3000	kWe, each	Good combustion practices, low sulfur fuel	0.24	G
3/31/2025	SYCAMORE RIVERSIDE ENERGY LLC	IN-0384	plant emergency generator	1500	kWe	Good combustion practices, low sulfur fuel	0.24	G

RBLC Entries for GHG Control from Emergency Engines

Date	Facility Name	RBLC ID	PROCESS NAME	THROUGHPUT	THROUGHPUT U	Control Method	Limit No. 1	Unit
1/23/2015	POINT THOMSON PRODUCTION FACILITY	AK-0082	Emergency Camp Generators	2695	hp		2332	TONS/YEAR
1/23/2015	POINT THOMSON PRODUCTION FACILITY	AK-0082	Fine Water Pumps	610	hp		565	TONS/YEAR
1/23/2015	POINT THOMSON PRODUCTION FACILITY	AK-0082	Bulk Tank Generator Engines	891	hp		7194	TONS/YEAR
6/4/2015	BENTELER STEEL TUBE FACILITY	LA-0309	Emergency Generator Engines	2922	hp (each)		0	
8/25/2015	CLEAN ENERGY FUTURE - LORDSTOWN, LLC	OH-0366	Emergency generator (P003)	2346	HP	Efficient design	683	T/YR
9/1/2015	MOXIE FREEDOM GENERATION PLANT	PA-0311	Fire Pump Engine	0			14	TPY
9/11/2015	GOLDEN PASS LNG EXPORT TERMINAL	TX-0766	Emergency Engine Generators	750	hp	Equipment specifications & work practices - Good combustion practices and limited operational hours	40	HR/YR
12/23/2015	LACKAWANNA ENERGY CTR/JESSUP	PA-0309	2000 kW Emergency Generator	0			81	TONS
1/22/2016	HOLBROOK COMPRESSOR STATION	LA-0292	Emergency Generators No. 1 & No. 2	1341	HP		77	TPY
3/21/2016	MAGNOLIA LNG FACILITY	LA-0307	Diesel Engines	0		good combustion/operating/maintenance practices	0	
6/8/2016	BEAUMONT TERMINAL	TX-0799	Fire pump engines	0		Equipment specifications and good combustion practices. Operation limited to 100 hours per year.	72.16	T/YR
6/17/2016	GREENSVILLE POWER STATION	VA-0325	DIESEL-FIRED EMERGENCY GENERATOR 3000 kW (1)	0		Good Combustion Practices/Maintenance	163.6	LB/MMBTU
6/30/2016	LAKE CHARLES METHANOL FACILITY	LA-0305	Diesel Engines (Emergency)	4023	hp	Complying with 40 CFR 60 Subpart IIII	0	
8/26/2016	GRAYLING PARTICLEBOARD	MI-0421	Emergency Diesel Generator Engine (EUEMRGRICE in FGRICE)	500	H/YR	Good combustion and design practices.	223	T/YR
8/26/2016	GRAYLING PARTICLEBOARD	MI-0421	Dieself fire pump engine (EUFIREPUMP in FGRICE)	500	H/YR	Good combustion and design practices.	56	T/YR
8/31/2016	ST. CHARLES POWER STATION	LA-0313	SCPS Emergency Diesel Generator 1	2584	HP	Good combustion practices	0	
9/23/2016	SOUTH FIELD ENERGY LLC	OH-0367	Emergency generator (P003)	2947	HP	Efficient design	858	T/YR
12/22/2016	METHANEX - GEISMAR METHANOL PLANT	LA-0317	Emergency Generator Engines (4 units)	0		complying with 40 CFR 60 Subpart IIII and 40 CFR 63 Subpart ZZZZ	0	
12/22/2016	METHANEX - GEISMAR METHANOL PLANT	LA-0317	Firewater pump Engines (4 units)	896	hp (each)	complying with 40 CFR 60 Subpart IIII and 40 CFR 63 Subpart ZZZZ	0	
1/4/2017	INDECK NILES, LLC	MI-0423	EUEMENGINE (Diesel fuel emergency engine)	22.68	MMBTU/H	Good combustion practices	928	T/YR
1/9/2017	MONSANTO LULING PLANT	LA-0323	Fire Water Diesel Pump No. 3 Engine	600	hp	Proper operation and limits on hours operation for emergency engines and compliance with 40 CFR 60 Subpart IIII	0	
1/9/2017	MONSANTO LULING PLANT	LA-0323	Fire Water Diesel Pump No. 4 Engine	600	hp	Proper operation and limits on hours of operation for emergency engines and compliance with 40 CFR 60 Subpart IIII	0	
2/17/2017	CAMERON LNG FACILITY	LA-0316	emergency generator engines (6 units)	3353	hp	good combustion practices	0	
4/19/2017	PALLAS NITROGEN LLC	OH-0368	Emergency Generator (P009)	5000	HP	good combustion control and operating practices and engines designed to meet the stands of 40 CFR Part 60, Subpart IIII	1289	T/YR
5/9/2017	GRAYLING PARTICLEBOARD	MI-0425	EUEMRGRICE1 in FGRICE (Emergency diesel generator engine)	500	H/YR	Good combustion and design practices.	209	T/YR
5/9/2017	GRAYLING PARTICLEBOARD	MI-0425	EUEMRGRICE2 in FGRICE (Emergency Diesel Generator Engine)	500	H/YR	Good combustion and design practices.	70	T/YR
5/9/2017	GRAYLING PARTICLEBOARD	MI-0425	EUFIREPUMP in FGRICE (Diesel fire pump engine)	500	H/YR	Good combustion and design practices.	56	T/YR
6/21/2017	MIT CENTRAL UTILITY PLANT	MA-0043	Cold Start Engine	19.04	MMBTU/HR		163.61	LB/MMBTU
6/30/2017	DONLIN GOLD PROJECT	AK-0084	Black Start and Emergency Internal Cumbustion Engines	1500	kWe	Good Combustion Practices	2781	TPY
6/30/2017	DONLIN GOLD PROJECT	AK-0084	Twelve (12) Large ULSD/Natural Gas-Fired Internal Combustion Engines	143.5	MMBtu/hr	Good Cumbustion Practices	1299630	TPY (ULSD)
6/30/2017	ST. JAMES METHANOL PLANT	*LA-0312	DFP1-13 - Diesel Fire Pump Engine (EQT0013)	650	horsepower	Compliance with NSPS Subpart IIII	37	TPY
6/30/2017	ST. JAMES METHANOL PLANT	*LA-0312	DEG1-13 - Diesel Fired Emergency Generator Engine (EQT0012)	1474	horsepower	Compliance with NSPS Subpart IIII	84	TPY
9/7/2017	TRUMBULL ENERGY CENTER	OH-0370	Emergency generator (P003)	1529	HP	Efficient design	445	T/YR
9/27/2017	OREGON ENERGY CENTER	OH-0372	Emergency generator (P003)	1529	HP	state of the art combustion design	445	T/YR
10/23/2017	GUERNSEY POWER STATION LLC	OH-0374	Emergency Generators (2 identical, P004 and P005)	2206	HP	good operating practices (proper maintenance and operation)	120	T/YR
11/7/2017	LONG RIDGE ENERGY GENERATION LLC - HANNIBAL POWER	OH-0375	Emergency Diesel Generator Engine (P001)	2206	HP	Efficient design	116.8	T/YR
11/7/2017	LONG RIDGE ENERGY GENERATION LLC - HANNIBAL POWER	OH-0375	Emergency Diesel Fire Pump Engine (P002)	700	HP	Efficient design	40.1	T/YR
2/9/2018	IRONUNITS LLC - TOLEDO HBI	OH-0376	Emergency diesel-fired generator (P007)	2682	HP	Equipment design and maintenance requirements	163.6	LB/MMBTU
4/19/2018	HARRISON POWER	OH-0377	Emergency Diesel Generator (P003)	1860	HP	Efficient design and proper maintenance and operation	109.2	T/YR
4/24/2018	SIO INTERNATIONAL WISCONSIN, INC. -ENERGY PLANT	WI-0284	Diesel-Fired Emergency Generators	0		The Use of Ultra-Low Sulfur Fuel and Good Combustion Practices	0	
4/24/2018	SIO INTERNATIONAL WISCONSIN, INC. -ENERGY PLANT	WI-0286	P42 -Diesel Fired Emergency Generator	0		Good Combustion Practices and The Use of Ultra-low Sulfur Fuel	0	
4/26/2018	C4GT, LLC	VA-0328	Emergency Diesel GEN	500	H/YR	use of S15 ULSD and high efficiency design and operation	981	T/YR
6/29/2018	MEC NORTH, LLC AND MEC SOUTH LLC	MI-0433	EUEMENGINE (North Plant): Emergency Engine	1341	HP	Good combustion practices.	383	T/YR
6/29/2018	MEC NORTH, LLC AND MEC SOUTH LLC	MI-0433	EUEMENGINE (South Plant): Emergency Engine	1341	HP	Good combustion practices.	383	T/YR
7/16/2018	BELLE RIVER COMBINED CYCLE POWER PLANT	MI-0435	EUEMENGINE: Emergency engine	2	MW	Energy efficient design.	161	T/YR
7/30/2018	CPV THREE RIVERS ENERGY CENTER	IL-0129	Emergency Engines	0			0	
9/21/2018	CALCASIEU PASS LNG PROJECT	LA-0331	Firewater Pumps	634	kW	Good Combustion Practices and Good Operation and Maintenance Practices.	44	T/YR
9/21/2018	CALCASIEU PASS LNG PROJECT	LA-0331	Large Emergency Engines (>50kW)	5364	HP	Good Combustion of Practices and Good Operation and Maintenance Practices	1481	T/YR
12/21/2018	LBWL--ERICKSON STATION	MI-0441	EUEMGD1--A 1500 HP diesel fueled emergency engine	1500	HP	Good combustion practices and energy efficiency measures.	406	T/YR
12/21/2018	LBWL--ERICKSON STATION	MI-0441	EUEMGD2--A 6000 HP diesel fuel fired emergency engine	6000	HP	Good combustion practices and energy efficiency measures.	1590	T/YR
12/21/2018	PTTGCA PETROCHEMICAL COMPLEX	OH-0378	Emergency Diesel-fired Generator Engine (P007)	3353	HP	good operating practices (proper maintenance and operation)	200	T/YR
12/21/2018	PTTGCA PETROCHEMICAL COMPLEX	OH-0378	1,000 kW Emergency Generators (P008 - P010)	1341	HP	good operating practices (proper maintenance and operation)	80	T/YR
12/31/2018	JACKSON ENERGY CENTER	IL-0130	Emergency Engine	1500	kW		225	TONS/YEAR
2/6/2019	PETMIN USA INCORPORATED	OH-0379	Emergency Generators (P005 and P006)	3131	HP	Tier IV engine Good combustion practices	3632	LB/H
6/11/2019	RIVERVIEW ENERGY CORPORATION	IN-0317	Emergency generator EU-6006	2800	HP	Tier II diesel engine	811	TONS
6/11/2019	RIVERVIEW ENERGY CORPORATION	IN-0317	Emergency fire pump EU-6008	750	HP	Engine that complies with Table 4 to Subpart IIII of Part 60	217	TONS
6/24/2019	CHICKAHOMINY POWER LLC	VA-0332	Emergency Diesel Generator - 300 kW	500	H/YR	good combustion practices, high efficiency design, and the use of ultra low sulfur diesel (S15 ULSD) fuel oil with a maximum sulfur content of 15 ppmw.	1203	T/YR

RBLC Entries for GHG Control from Emergency Engines

Date	Facility Name	RBLC ID	PROCESS NAME	THROUGHPUT	THROUGHPUT U	Control Method	Limit No. 1	Unit
8/21/2019	THOMAS TOWNSHIP ENERGY, LLC	MI-0442	FGEMENGINE	1100	KW		444	T/YR
9/23/2019	SUN BIO MATERIAL COMPANY	AR-0161	Emergency Engines	0		Good Combustion Practices	164	LB/MMBTU
10/31/2019	CONDENSATE SPLITTER FACILITY	TX-0872	Emergency Generators	0		Limiting duration and frequency of generator use to 100 hr/yr. Good combustion practices will be used to reduce VOC including maintaining proper air-to-fuel ratio.	0	
11/26/2019	INDECK NILES, LLC	*MI-0445	EUEMENGINE (diesel fuel emergency engine)	22.68	MMBTU/H	Good combustion practices	928	T/YR
12/10/2019	GREEN BAY PACKAGING- MILL DIVISION	WI-0297	Diesel-Fired Emergency Fire Pump (P36)	510	HP		200	H/Y
1/6/2020	FG LA COMPLEX	LA-0364	Emergency Generator Diesel Engines	550	hp	Compliance with the limitations imposed by 40 CFR 63 Subpart IIII and operating the engine in accordance with the engine manufacturer's instructions and/or written procedures designed to maximize combustion efficiency and minimize fuel usage.	0	
1/6/2020	FG LA COMPLEX	LA-0364	Emergency Fire Water Pumps	550	hp	Compliance with the limitations imposed by 40 CFR 63 Subpart IIII and operating the engine in accordance with the engine manufacturer's instructions and/or written procedures designed to maximize combustion efficiency and minimize fuel usage.	0	
2/6/2020	PORT ARTHUR ETHANE CRACKER UNIT	TX-0876	Emergency generator	0		Tier 4 exhaust emission standards specified in 40 CFR Â§ 1039.101, limited to 100 hours per year of non-emergency operation	0	
4/23/2020	ORANGE POLYETHYLENE PLANT	TX-0888	EMERGENCY GENERATORS & FIRE WATER PUMP ENGINES	0		well-designed and properly maintained engines and each limited to 100 hours per year of non-emergency use.	0	
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 10-02 - North Water System Emergency Generator	2922	HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	0	
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 10-03 - South Water System Emergency Generator	2922	HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	0	
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 10-04 - Emergency Fire Water Pump	920	HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	0	
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 10-07 - Air Separation Plant Emergency Generator	700	HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	0	
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 10-01 - Caster Emergency Generator	2922	HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	0	
8/13/2020	GAS TREATMENT PLANT	AK-0085	One (1) Black Start Generator Engine	186.6	gph	Good combustion practices and limit operation to 500 hours per year	163.6	LB/MMBTU
9/1/2020	NEMADJI TRAIL ENERGY CENTER	WI-0300	Emergency Diesel Generator (P07)	1490	HP	Certified to at least meet EPAâ€™s criteria for Tier 2 reciprocating internal combustion engines and the 40 CFR 60, Subpart IIII emission limitations, operation limited to 500 hours/year, and operate and maintain generator according to the manufacturerâ€™s recommendations.	0	
9/3/2020	LAKE CHARLES LNG EXPORT TERMINAL	LA-0383	Emergency Engines (EQT0011 - EQT0016)	0		Comply with 40 CFR 60 Subpart IIII	0	
9/16/2020	DIAMOND GREEN DIESEL PORT ARTHUR FACILITY	TX-0905	EMERGENCY GENERATOR	0		limited to 100 hours per year of non-emergency operation	0	
12/9/2020	NORFOLK NAVAL SHIPYARD	VA-0333	One (1) emergency engine generator	2220	HP		2.543	LB
12/18/2020	GRAYLING PARTICLEBOARD	MI-0448	Emergency diesel generator engine (EUEMRGRICE1 in FGRICE)	500	h/yr	Good Combustion and Design Practices	590	T/YR
12/18/2020	GRAYLING PARTICLEBOARD	MI-0448	Emergency diesel generator engine (EUEMRGRICE2 in FGRICE)	500	h/yr	Good Combustion and Design Practices	209	T/YR
12/18/2020	GRAYLING PARTICLEBOARD	MI-0448	Diesel fire pump engine (EUFIREPUMP in FGRICE)	500	h/yr	Good Combustion and Design Practices	56	T/YR
1/7/2021	LBWL--ERICKSON STATION	MI-0447	EUEMGD--emergency engine	4474.2	KW	low carbon fuel (pipeline quality natural gas), good combustion practices, and energy efficiency measures.	590	T/YR
3/17/2021	UNIT 5	TX-0915	DIESEL GENERATOR	0		LIMITED 500 HR/YR OPERATION	0	
11/17/2021	NACERO PENWELL FACILITY	TX-0933	Emergency Generators	0		limited to 100 hours per year of non-emergency operation. EPA Tier 2 (40 CFR Â§ 1039.101) exhaust emission standards	0	
2/25/2022	LACC LLC US - ETHYLENE PLANT	LA-0388	Firewater Pump Engine No. 1 and 2	575	hp	Compliance with 40 CFR 60 Subpart IIII	33	T/YR
5/6/2022	MIDWEST FERTILIZER COMPANY LLC	IN-0324	emergency generator EU 014a	3600	HP		1044	TON/YR
6/3/2022	MAGNOLIA POWER GENERATING STATION UNIT 1	LA-0391	Emergency Diesel Generator Engine	2937	hp	Compliance with 40 CFR 60 Subpart IIII, good combustion practices, and the use of ultra-low sulfur diesel fuel.	74.21	KG/MM BTU
6/23/2022	MEC NORTH, LLC	MI-0451	EUEMENGINE (North Plant): Emergency engine	1341	HP	Good combustion practices	383	T/YR
6/23/2022	MEC SOUTH, LLC	MI-0452	EUEMENGINE (South Plant): Emergency engine	1341	HP	Good combustion practices	383	T/YR
7/7/2022	LIQUEFACTION PLANT	AK-0088	Diesel Fire Pump Engine	27.9	Gal/hr	Good Combustion Practices; Limited Operation;	163.6	LB/MMBTU
7/29/2022	LINCOLN LAND ENERGY CENTER	IL-0133	Emergency Engines	1250	kW		508	TONS/YEAR
11/21/2022	NUCOR STEEL ARKANSAS	AR-0177	SN-230 Galvanizing Line No, 2 Emergency Generator	3634	Horsepower		163	LB/MMBTU
12/20/2022	LBWL-ERICKSON STATION	MI-0454	EUEMGD	4474.2	KW	low carbon fuel (pipeline quality natural gas), good combustion practices, and energy efficiency measures.	590	T/YR
3/13/2023	ORANGE COUNTY ADVANCED POWER STATION	TX-0939	EMERGENCY GENERATOR	18.7	MMBTU/HR	GOOD COMBUSTION PRACTICES, LIMITED TO 100 HR/YR	0	
3/30/2023	NUCOR STEEL	IN-0359	Emergency Generator (CC-GEN1)	3000	Horsepower	Good engineering design and manufacturerâ€™s recommended operating and maintenance procedures.	163.6	LB/MMBTU
4/28/2023	HYBAR LLC	AR-0180	Emergency Generators	0		Good combustion practices	164	LB/MMBTU
6/19/2023	MAPLE CREEK ENERGY LLC	*IN-0365	Emergency generator	2012	hp		625	TONS PER YEAR
6/19/2023	MAPLE CREEK ENERGY LLC	*IN-0365	Emergency fire pump	420	brake hp		123	TONS PER YEAR
9/19/2023	NEMADJI TRAIL ENERGY CENTER	*WI-0326	Emergency Generator	1490	HP	Selection of the most efficient reciprocating internal combustion engine and minimizing the hours of operation limits greenhouse gas emissions. EPA Tier 2 certified reciprocating internal combustion engine and limiting its hours of operation to 500 hours per each 12 consecutive calendar months.	500	HOURS
12/12/2023	GEISMAR PLANT	*LA-0394	06-22 - AO-5 Emergency Generator	670.5	horsepower	Use of good combustion practices and compliance with NSPS Subpart IIII	0	
12/12/2023	GEISMAR PLANT	*LA-0394	53-22 - PAO Emergency Generator	670.5	horsepower	Use of good combustion practices, compliance with NSPS Subpart IIII	0	
12/21/2023	CRONUS CHEMICALS	IL-0134	Emergency Generator Engine	3985	hp		160	TONS/YEAR
1/11/2024	WABASH VALLEY RESOURCES, LLC	IN-0371	Emergency Generator (400 kW)	619	HP	Good Combustion Practices	180	TONS
1/11/2024	WABASH VALLEY RESOURCES, LLC	IN-0371	Emergency Generator (1000 kW)	1000	kW	Good Combustion Practices	389	TONS
1/11/2024	WABASH VALLEY RESOURCES, LLC	IN-0371	Emergency Generator (2000 kW)	2000	kW	Good Combustion Practices	778	TONS
1/11/2024	WABASH VALLEY RESOURCES, LLC	IN-0371	Ammonia Plant Emergency Generator	500	kW	Good Combustion Practices	219	TONS
6/27/2024	LANSING BOARD OF WATER AND LIGHT--DELTA ENERGY PARK	MI-0459	EUEMGEN	762	bhp	Good combustion practices, use of current energy efficiency measures.	205	T/YR

RBLC Entries for GHG Control from Emergency Engines

Date	Facility Name	RBLC ID	PROCESS NAME	THROUGHPUT	THROUGHPUT U	Control Method	Limit No. 1	Unit
7/24/2024	MCA GEIMAR SITE	*LA-0406	Diesel Emergency Generator (EQT0012)	1140	hp	Proper equipment design and good combustion practices. Use ultra-low sulfur diesel as fuel. Compliance with 40 CFR 60 Subpart IIII.	1.16	G/HP-HR
8/7/2024	BLUE LAKE	MN-0095	Emergency Generator 2 (EQUI 26)	1049	horsepower	Emergency classification, hourly restriction, and good combustion practices	314	TON/YR
8/7/2024	BLUE LAKE	MN-0095	Emergency Generator 3 (EQUI 27)	1049	horsepower	Emergency classification, hourly restriction, good combustion practices, and NSPS compliance	314	TON/YR
8/7/2024	BLUE LAKE	MN-0095	Emergency Generator 4 (EQUI 28)	1049	horsepower	Emergency classification, hourly restriction, good combustion practices, and NSPS compliance	314	TON/YR
8/7/2024	BLUE LAKE	MN-0095	Emergency Generator 5 (EQUI 43)	772	horsepower	Emergency classification, hourly restriction, good combustion practices, and NSPS compliance	231	TON/YR
8/7/2024	BLUE LAKE	MN-0095	Emergency Generator 6 (EQUI 43)	772	horsepower	Emergency classification, hourly restriction, good combustion practices, and NSPS compliance	231	TON/YR
12/16/2024	SHINTECH PLAQUEMINE PLANT 4	*LA-0403	4C-6A - C/A Emergency Generator A	2346	horsepower	BACT is determined to be the implementation of the following energy efficiency measures: Improved Combustion Measures, Insulation, and Minimization of Air Infiltration	0	
12/16/2024	SHINTECH PLAQUEMINE PLANT 4	*LA-0403	4C-6B - C/A Emergency Generator B	2346	horsepower	BACT is determined to be the implementation of the following energy efficiency measures: Improved Combustion Measures, Insulation, and Minimization of Air Infiltration	0	
12/16/2024	SHINTECH PLAQUEMINE PLANT 4	*LA-0403	4C-6C - C/A Emergency Generator C	2346	horsepower	BACT is determined to be the implementation of the following energy efficiency measures: Improved Combustion Measures, Insulation, and Minimization of Air Infiltration	0	
12/16/2024	SHINTECH PLAQUEMINE PLANT 4	*LA-0403	4U-10 - Utility Emergency Generator	2012	horsepower	BACT is determined to be the implementation of the following energy efficiency measures: Improved Combustion Measures, Insulation, and Minimization of Air Infiltration	0	
12/16/2024	SHINTECH PLAQUEMINE PLANT 4	*LA-0403	4U-12 - VCM/CA/UT CCR Emergency Generator	760	horsepower	BACT is determined to be the implementation of the following energy efficiency measures: Improved Combustion Measures, Insulation, and Minimization of Air Infiltration	0	
2/14/2025	DUKE ENERGY INDIANA, INC.- CAYUGA GENERATING STATION	IN-0382	Emergency Generators	2000	HP	good combustion practices	0	
3/31/2025	SYCAMORE RIVERSIDE ENERGY LLC	IN-0384	Black Start Emergency Generators	3000	kWe, each		0	
3/31/2025	SYCAMORE RIVERSIDE ENERGY LLC	IN-0384	plant emergency generator	1500	kWe	GHG emissions of the plant emergency generator shall be controlled through the use of a good engineering design fuel efficient design, and limited operating hours.	0	

RBLC Entries for Nitrogen Oxides Control from Natural Gas Engines

Date	Facility Name	RBLC ID	PROCESS NAME	THROUGHPUT	THROUGHPUT UNIT	Control Method	Limit No. 1	Unit
5/21/2015	RAMSEY GAS PLANT	TX-0755	Internal Combustion Compressor Engines	206149	MMBtu/yr	Ultra Lean-burn engines firing natural gas	0.5	G/HP HR
1/22/2016	HOLBROOK COMPRESSOR STATION	LA-0292	Waukesha 16V-275GL Compressor Engines Nos. 1-12	5000	HP	Lean-burn combustion, use of natural gas as fuel, good equipment design, and proper combustion techniques	4.96	LB/HR
3/31/2016	MID-KANSAS ELECTRIC COMPANY, LLC - RUBART STATION	KS-0030	Spark ignition RICE emergency AC generators	450	kW		2	G/HP-HR
3/31/2016	MID-KANSAS ELECTRIC COMPANY, LLC - RUBART STATION	KS-0030	Spark ignition RICE electricity generating units (EGUs)	10	MW		2.13	LB/H
6/3/2016	DTE GAS COMPANY--MILFORD COMPRESSOR STATION	MI-0420	EUN_EM_GEN	225	H/YR	Low NOx design (turbo charger and after cooler) and good combustion practices.	4.8	LB/H
12/5/2016	HOLLAND BOARD OF PUBLIC WORKS - EAST 5TH STREET	MI-0424	EUNGENGINE (Emergency engine--natural gas)	500	H/YR	Good combustion practices.	2	G/HP-H
3/17/2017	GOLD COAST PACKING	CA-1240	Internal Combustion Engine	881	bhp	SCR catalyst-Urea injection	5	PPMVD
3/24/2017	DTE GAS COMPANY - MILFORD COMPRESSOR STATION	MI-0426	EUN_EM_GEN (Natural gas emergency engine).	205	H/YR	Low NOx design (turbo charger and after cooler) and good combustion practices.	4	LB/H
12/21/2018	LBWL--ERICKSON STATION	MI-0441	EUEMGNG1--A 1500 HP natural gas fueled emergency engine	1500	HP	Burn natural gas and be NSPS compliant.	2	G/HP-H
12/21/2018	LBWL--ERICKSON STATION	MI-0441	EUEMGNG2	6000	HP	Burn natural gas and be NSPS compliant	2	G/HP-H
2/14/2019	NUCOR STEEL FLORIDA FACILITY	FL-0368	Emergency Engines	0		Good combustion practices	2	G/HP-HR
5/22/2019	MICHIGAN STATE UNIVERSITY	MI-0440	FGENGINES	16500	HP	Selective catalytic reduction	0.5	G/HP-H
6/9/2019	BIG RIVER STEEL LLC	AR-0163	Lime Injector Burners	0		Low NOx burners Combustion of clean fuel Good Combustion Practices	0.095	LB/MMBTU
10/30/2019	HOLLYFRONTIER EL DORADO REFINERY	KS-0041	J2001E	660	BHP	NSCR	0.2507	LB/MMBTU
10/30/2019	HOLLYFRONTIER EL DORADO REFINERY	KS-0041	J2002E	660	BHP	NSCR	0.2507	LB/MMBTU
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 10-05 - Austenitizing Furnace Rolls Emergency Generator	636	HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	2	G/HP-HR
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 10-06 - Tempering Furnace Rolls Emergency Generator	636	HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	2	G/HP-HR
10/19/2021	CENTURION BROWNSVILLE	TX-0930	Firewater Pumps	800	HP	Use of well-designed and properly maintained engines. Good combustion practices. Limited to 52 hours per year of non-emergency operation. Equipped with non-resettable runtime meter.	0	
4/25/2022	SINOVA SILICON LLC	TN-0183	Emergency natural gas-fired engine	2682	HP		7.1	LB/HR
5/5/2022	WEST VIRGINIA STEEL MILL	*WV-0034	Emergency Generator	2000	hp	Subpart JJJJ Certification 100 Hours/Yr Usage Limit	8.82	LB/HR
8/31/2022	TENNESSEE VALLEY AUTHORITY - JOHNSONVILLE COMBUSTION TURBINE	*TN-0187	2,952 HP black-start emergency engine	2.08	MMBtu/hr	good combustion and operating practices	2	G/HP-HR
6/27/2024	LANSING BOARD OF WATER AND LIGHT--DELTA ENERGY PARK	MI-0459	FG-ENGINES	29147	BHP	Selective catalytic reduction, lean burn combustion.	0.5	G/B-HP-H

RBLC Entries for Carbon Monoxide Control from Natural Gas Engines

Date	Facility Name	RBLC ID	PROCESS NAME	THROUGHPUT	THROUGHPUT UNIT	Control Method	Limit No. 1	Unit
5/21/2015	RAMSEY GAS PLANT	TX-0755	Internal Combustion Compressor Engines	206149	MMBtu/yr	Ultra Lean-burn engines firing residue gas (with low carbon density) which is equivalent to natural gas, and use of oxidation catalysts	0.083	G/HP HR
3/31/2016	MID-KANSAS ELECTRIC COMPANY, LLC - RUBART STATION	KS-0030	Spark ignition RICE emergency AC generators	450	kW		4	G/HP-HR
3/31/2016	MID-KANSAS ELECTRIC COMPANY, LLC - RUBART STATION	KS-0030	Spark ignition RICE electricity generating units (EGUs)	10	MW		3.86	LB/H
6/3/2016	DTE GAS COMPANY--MILFORD COMPRESSOR STATION	MI-0420	EUN_EM_GEN	225	H/YR	Good combustion practices and clean burn fuel (pipeline quality natural gas).	9.6	LB/H
12/5/2016	HOLLAND BOARD OF PUBLIC WORKS - EAST 5TH STREET	MI-0424	EUNGENGINE (Emergency engine--natural gas)	500	H/YR	Oxidation catalyst and good combustion practices.	0.8	G/HP-H
3/17/2017	GOLD COAST PACKING	CA-1240	Internal Combustion Engine	881	bhp	Oxidation catalyst	54	PPMVD
3/24/2017	DTE GAS COMPANY - MILFORD COMPRESSOR STATION	MI-0426	EUN_EM_GEN (Natural gas emergency engine).	205	H/YR	Good combustion practices and clean burn fuel (pipeline quality natural gas).	11	LB/H
12/21/2018	LBWL--ERICKSON STATION	MI-0441	EUEMGNG1--A 1500 HP natural gas fueled emergency engine	1500	HP	Burn natural gas and be NSPS compliant	4	G/HP-H
12/21/2018	LBWL--ERICKSON STATION	MI-0441	EUEMGNG2	6000	HP	Burn natural gas and be NSPS compliant.	4	G/HP-H
2/14/2019	NUCOR STEEL FLORIDA FACILITY	FL-0368	Emergency Engines	0		good combustion practices	4	G-HP-HR
5/22/2019	MICHIGAN STATE UNIVERSITY	MI-0440	FGENGINES	16500	HP	Oxidation catalyst	0.3	G/HP-H
6/9/2019	BIG RIVER STEEL LLC	AR-0163	Lime Injector Burners	0		Combustion of Natural gas and Good Combustion Practices	0.0824	LB/MMBTU
10/30/2019	HOLLYFRONTIER EL DORADO REFINERY	KS-0041	J2001E	660	BHP	NSCR	0.31	LB/MMBTU
10/30/2019	HOLLYFRONTIER EL DORADO REFINERY	KS-0041	J2002E	660	BHP	NSCR	0.38	LB/MMBTU
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 10-05 - Austenitizing Furnace Rolls Emergency Generator	636	HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	4	G/HP-HR
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 10-06 - Tempering Furnace Rolls Emergency Generator	636	HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	4	G/HP-HR
10/19/2021	CENTURION BROWNSVILLE	TX-0930	Firewater Pumps	800	HP	Use of well-designed and properly maintained engines. Good combustion practices. Limited to 52 hours per year of non-emergency operation. Equipped with non-resettable runtime meter.	0	
3/10/2022	WISCONSIN PUBLIC SERVICE CORPORATION- WESTON PLANT	WI-0314	Reciprocating Internal Combustion Engine (RICE) (P101-P107)	152.3	MMBTU/H	Use of good combustion practices and use of oxidation catalyst	4.43	LB/H
3/10/2022	WISCONSIN PUBLIC SERVICE CORPORATION- WESTON PLANT	WI-0314	Emergency Generator (P111)	10.4	MMBTU/H	Use of good combustion practices and total hours of operation may not exceed 200 hours in any 12-consecutive-month period	4	G/B-HP-H
4/25/2022	SINOVA SILICON LLC	TN-0183	Emergency natural gas-fired engine	2682	HP		13.01	LB/HR
5/5/2022	WEST VIRGINIA STEEL MILL	*WV-0034	Emergency Generator	2000	hp	Subpart JJJJ Certification 100 Hours/Yr Usage Limit	17.64	LB/HR
8/31/2022	TENNESSEE VALLEY AUTHORITY - JOHNSONVILLE COMBUSTION TURBINE	*TN-0187	2,952 HP black-start emergency engine	2.08	MMBtu/hr	good combustion and operating practices	4	G/HP-HR
3/8/2024	WASSON CO2 REMOVAL PLANT	TX-0969	COMPRESSORS OFF-LINE (AOS)	0		PROCESS FIELD GAS DIVERTED TO FLARE, GOOD COMBUSTION PRACTICES	0	
6/27/2024	LANSING BOARD OF WATER AND LIGHT--DELTA ENERGY PARK	MI-0459	FG-ENGINES	29147	BHP	Catalytic oxidation, good combustion practices.	0.3	G/B-HP-H

RBLC Entries for PM_{10} Control from Natural Gas Engines

Date	Facility Name	RBLC ID	PROCESS NAME	THROUGHPUT	THROUGHPUT UNIT	Control Method	Limit No. 1	Unit
3/31/2016	MID-KANSAS ELECTRIC COMPANY, LLC - RUBART STATION	KS-0030	Spark ignition RICE emergency AC generators	450	kW		0.0001	G/HP-HR
3/31/2016	MID-KANSAS ELECTRIC COMPANY, LLC - RUBART STATION	KS-0030	Spark ignition RICE electricity generating units (EGUs)	10	MW		1.31	LB/H
6/3/2016	DTE GAS COMPANY--MILFORD COMPRESSOR STATION	MI-0420	EUN_EM_GEN	225	H/YR	Good combustion practices and low sulfur fuel (pipeline quality natural gas).	0.01	LB/MMBTU
12/5/2016	HOLLAND BOARD OF PUBLIC WORKS - EAST 5TH STREET	MI-0424	EUNGENGINE (Emergency engine--natural gas)	500	H/YR	Good combustion practices.	0.01	LB/MMBTU
3/24/2017	DTE GAS COMPANY - MILFORD COMPRESSOR STATION	MI-0426	EUN_EM_GEN (Natural gas emergency engine).	205	H/YR	Good combustion practices and low sulfur fuel (pipeline quality natural gas).	0.01	LB/MMBTU
12/21/2018	LBWL--ERICKSON STATION	MI-0441	EUEMGNG1--A 1500 HP natural gas fueled emergency engine	1500	HP	Burn pipeline quality natural gas	0.13	LB/H
12/21/2018	LBWL--ERICKSON STATION	MI-0441	EUEMGNG2	6000	HP	Burn pipeline quality natural gas.	0.5	LB/H
5/22/2019	MICHIGAN STATE UNIVERSITY	MI-0440	FGENGINES	16500	HP	Natural gas and good combustion practices	3	LB/H
6/9/2019	BIG RIVER STEEL LLC	AR-0163	Lime Injector Burners	0		Combustion of Natural gas and Good Combustion Practices	0.0075	LB/MMBTU
10/30/2019	HOLLYFRONTIER EL DORADO REFINERY	KS-0041	J2001E	660	BHP	Proper combustion and operation	0.0194	LB/MMBTU
10/30/2019	HOLLYFRONTIER EL DORADO REFINERY	KS-0041	J2002E	660	BHP	Proper combustion and operation	0.0194	LB/MMBTU
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 10-05 - Austenitizing Furnace Rolls Emergency Generator	636	HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	0	
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 10-06 - Tempering Furnace Rolls Emergency Generator	636	HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	0	
10/19/2021	CENTURION BROWNSVILLE	TX-0930	Firewater Pumps	800	HP	Use of well-designed and properly maintained engines. Good combustion practices. Limited to 52 hours per year of non-emergency operation. Equipped with non-resettable runtime meter.	0	
3/10/2022	WISCONSIN PUBLIC SERVICE CORPORATION- WESTON PLANT	WI-0314	Reciprocating Internal Combustion Engine (RICE) (P101-P107)	152.3	MMBTU/H	Use of good combustion practices and use of pipeline quality natural gas	2.37	LB/H
3/10/2022	WISCONSIN PUBLIC SERVICE CORPORATION- WESTON PLANT	WI-0314	Emergency Generator (P111)	10.4	MMBTU/H	Use of good combustion practices, use of pipeline quality natural gas, and total hours of operation may not exceed 200 hours in any 12-consecutive-month period.	0	
4/25/2022	SINOVA SILICON LLC	TN-0183	Emergency natural gas-fired engine	2682	HP		0.1	LB/HR
6/27/2024	LANSING BOARD OF WATER AND LIGHT--DELTA ENERGY PARK	MI-0459	FG-ENGINES	29147	BHP	Good combustion practices.	4	LB/H

RBLC Entries for $PM_{2.5}$ Control from Natural Gas Engines

Date	Facility Name	RBLC ID	PROCESS NAME	THROUGHPUT	THROUGHPUT UNIT	Control Method	Limit No. 1	Unit
1/22/2016	HOLBROOK COMPRESSOR STATION	LA-0292	Waukesha 16V-275GL Compressor Engines Nos. 1-12	5000	HP	Use of natural gas as fuel, good equipment design, and proper combustion techniques	0.003	LB/HR
3/31/2016	MID-KANSAS ELECTRIC COMPANY, LLC - RUBART STATION	KS-0030	Spark ignition RICE emergency AC generators	450	kW		0.0001	G/HP-HR
3/31/2016	MID-KANSAS ELECTRIC COMPANY, LLC - RUBART STATION	KS-0030	Spark ignition RICE electricity generating units (EGUs)	10	MW		1.31	LB/H
6/3/2016	DTE GAS COMPANY--MILFORD COMPRESSOR STATION	MI-0420	EUN_EM_GEN	225	H/YR	Good combustion practices and low sulfur fuel (pipeline quality natural gas).	0.01	LB/MMBTU
12/5/2016	HOLLAND BOARD OF PUBLIC WORKS - EAST 5TH STREET	MI-0424	EUNGENGINE (Emergency engine--natural gas)	500	H/YR	Good combustion practices.	0.01	LB/MMBTU
3/24/2017	DTE GAS COMPANY - MILFORD COMPRESSOR STATION	MI-0426	EUN_EM_GEN (Natural gas emergency engine).	205	H/YR	Good combustion practices and low sulfur fuel (pipeline quality natural gas).	0.01	LB/MMBTU
12/21/2018	LBWL--ERICKSON STATION	MI-0441	EUEMGNG1--A 1500 HP natural gas fueled emergency engine	1500	HP	Burn pipeline quality natural gas	0.13	LB/H
12/21/2018	LBWL--ERICKSON STATION	MI-0441	EUEMGNG2	6000	HP	Burn pipeline quality natural gas.	0.5	LB/H
5/22/2019	MICHIGAN STATE UNIVERSITY	MI-0440	FGENGINES	16500	HP	Natural gas and good combustion practices	3	LB/H
6/9/2019	BIG RIVER STEEL LLC	AR-0163	Lime Injector Burners	0		Combustion of Natural gas and Good Combustion Practices	0.0075	LB/MMBTU
10/30/2019	HOLLYFRONTIER EL DORADO REFINERY	KS-0041	J2001E	660	BHP	Proper combustion and operation	0.0194	LB/MMBTU
10/30/2019	HOLLYFRONTIER EL DORADO REFINERY	KS-0041	J2002E	660	BHP	Proper combustion and operation	0.0194	LB/MMBTU
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 10-05 - Austenitizing Furnace Rolls Emergency Generator	636	HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	0	
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 10-06 - Tempering Furnace Rolls Emergency Generator	636	HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	0	
10/19/2021	CENTURION BROWNSVILLE	TX-0930	Firewater Pumps	800	HP	Use of well-designed and properly maintained engines. Good combustion practices. Limited to 52 hours per year of non-emergency operation. Equipped with non-resettable runtime meter.	0	
3/10/2022	WISCONSIN PUBLIC SERVICE CORPORATION- WESTON PLANT	WI-0314	Reciprocating Internal Combustion Engine (RICE) (P101-P107)	152.3	MMBTU/H	Use of good combustion practices and use of pipeline quality natural gas	2.37	LB/H
3/10/2022	WISCONSIN PUBLIC SERVICE CORPORATION- WESTON PLANT	WI-0314	Emergency Generator (P111)	10.4	MMBTU/H	Use of good combustion practices, use of pipeline quality natural gas, and total hours of operation may not exceed 200 hours in any 12-consecutive-month period.	0	
4/25/2022	SINOVA SILICON LLC	TN-0183	Emergency natural gas-fired engine	2682	HP		0.1	LB/HR
6/27/2024	LANSING BOARD OF WATER AND LIGHT--DELTA ENERGY PARK	MI-0459	FG-ENGINES	29147	BHP	Good combustion practices.	4	LB/H

RBLC Entries for Sulfur Dioxide Control from Natural Gas Engines

Date	Facility Name	RBLC ID	PROCESS NAME	THROUGHPUT	THROUGHPUT UNIT	Control Method	Limit No. 1	Unit
10/30/2019	HOLLYFRONTIER EL DORADO REFINERY	KS-0041	J2001E	660	BHP	Low Sulfur Fuel Gas	162	PPMV
10/30/2019	HOLLYFRONTIER EL DORADO REFINERY	KS-0041	J2002E	660	BHP	Low Sulfur Fuel Gas	162	PPMV
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 10-05 - Austenitizing Furnace Rolls Emergency Generator	636	HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	0	
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 10-06 - Tempering Furnace Rolls Emergency Generator	636	HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	0	
10/19/2021	CENTURION BROWNSVILLE	TX-0930	Firewater Pumps	800	HP	Use of well-designed and properly maintained engines. Good combustion practices. Limited to 52 hours per year of non-emergency operation. Equipped with non-resettable runtime meter.	0	
4/25/2022	SINOVA SILICON LLC	TN-0183	Emergency natural gas-fired engine	2682	HP		0.0029	LB/HR
3/8/2024	WASSON CO2 REMOVAL PLANT	TX-0969	COMPRESSORS OFF-LINE (AOS)	0		PROCESS FIELD GAS UP TO 9% H2S DIVERTED TO FLARE, GOOD COMBUSTION PRACTICES	0	

RBLC Entries for Volatile Organic Compounds Control from Natural Gas Engines

Date	Facility Name	RBLC ID	PROCESS NAME	THROUGHPUT	THROUGHPUT UNIT	Control Method	Limit No. 1	Unit
5/21/2015	RAMSEY GAS PLANT	TX-0755	Internal Combustion Compressor Engines	206149	MMBtu/yr	Ultra lean-burn engines firing residue gas which is equivalent to natural gas, , and use of oxidation catalysts	0.091	G/HP HR
1/22/2016	HOLBROOK COMPRESSOR STATION	LA-0292	Waukesha 16V-275GL Compressor Engines Nos. 1-12	5000	HP	CO oxidation catalyst, use of natural gas as fuel, good equipment design, and proper combustion techniques	1.25	LB/HR
3/31/2016	MID-KANSAS ELECTRIC COMPANY, LLC - RUBART STATION	KS-0030	Spark ignition RICE emergency AC generators	450	kW		1	G/HP-HR
3/31/2016	MID-KANSAS ELECTRIC COMPANY, LLC - RUBART STATION	KS-0030	Spark ignition RICE electricity generating units (EGUs)	10	MW		5.82	LB/H
12/5/2016	HOLLAND BOARD OF PUBLIC WORKS - EAST 5TH STREET	MI-0424	EUNGENGINE (Emergency engine--natural gas)	500	H/YR	Oxidation catalyst and good combustion practices.	0.5	G/HP-H
3/17/2017	GOLD COAST PACKING	CA-1240	Internal Combustion Engine	881	bhp	Oxidation catalyst	25	PPMVD
12/21/2018	LBWL--ERICKSON STATION	MI-0441	EUEMGNG1--A 1500 HP natural gas fueled emergency engine	1500	HP	Burn natural gas and be NSPS compliant	1	G/HP-H
12/21/2018	LBWL--ERICKSON STATION	MI-0441	EUEMGNG2	6000	HP	Burn natural gas and be NSPS compliant.	1	G/HP-H
2/14/2019	NUCOR STEEL FLORIDA FACILITY	FL-0368	Emergency Engines	0		Good combustion practices	1	G/HP-HR
4/3/2019	ARVAH B. HOPKINS GENERATING STATION	FL-0370	18.82 MW SI Internal Combustion Engine Unit 1A	161.4	MMBtu/hour	Oxidation Catalyst for each engine	26	PPMVD AT 15% O2
4/3/2019	ARVAH B. HOPKINS GENERATING STATION	FL-0370	18.82 MW SI Internal Combustion Engine Unit 1B	161.4	MMBtu/hour	Oxidation catalyst on each engine	26	PPMVD AT 15% O2
4/3/2019	ARVAH B. HOPKINS GENERATING STATION	FL-0370	18.82 MW SI Internal Combustion Engine Unit 1C	161.4	MMBtu/hour	Oxidation catalyst on each engine	26	PPMVD AT 15% O2
4/3/2019	ARVAH B. HOPKINS GENERATING STATION	FL-0370	18.82 MW SI Internal Combustion Engine Unit 1D	161.4	MMBtu/hour	Oxidation catalyst on each engine	26	PPMVD AT 15% O2
4/3/2019	ARVAH B. HOPKINS GENERATING STATION	FL-0370	18.82 MW SI Internal Combustion Engine Unit 1E	161.4	MMBtu/hour	Oxidation catalyst on each engine	26	PPMVD AT 15% O2
4/26/2019	MACK AVENUE ASSEMBLY PLANT	MI-0443	EUEMERGEN1	500	h/yr		0.5	G/HP-H
4/26/2019	MACK AVENUE ASSEMBLY PLANT	MI-0443	EUEMERGEN2	500	h/yr		0.5	G/HP-H
4/26/2019	MACK AVENUE ASSEMBLY PLANT	MI-0443	EUEMERGEN3	500	h/yr		0.5	G/HP-H
5/22/2019	MICHIGAN STATE UNIVERSITY	MI-0440	FGENGINES	16500	HP	Oxidation catalyst	11	LB/H
8/26/2019	WARREN TRUCK ASSEMBLY PLANT	MI-0444	FGNGEMENG (multiple emission units in this flexible group)	0		Combustion of pipeline quality natural gas only.	0.5	G/HP-H
10/30/2019	HOLLYFRONTIER EL DORADO REFINERY	KS-0041	J2001E	660	BHP	NSCR	1	G/HP-H
10/30/2019	HOLLYFRONTIER EL DORADO REFINERY	KS-0041	J2002E	660	BHP	NSCR	1	G/HP-H
12/10/2019	GREEN BAY PACKAGING- MILL DIVISION	WI-0297	Natural Gas-fired Emergency Generator (P39)	675	HP	Only fire natural gas.	200	H/Y
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 10-05 - Austenitizing Furnace Rolls Emergency Generator	636	HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	1	G/HP-HR
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 10-06 - Tempering Furnace Rolls Emergency Generator	636	HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	1	G/HP-HR
10/30/2020	MACK AVENUE ASSEMBLY PLANT	*MI-0446	EUEMERGEN1	500	h/yr		0.5	G/HP-H
10/30/2020	MACK AVENUE ASSEMBLY PLANT	*MI-0446	EUEMERGEN2	500	h/yr		0.5	G/HP-H
6/23/2021	WARREN TRUCK ASSEMBLY PLANT	MI-0449	FGNGEMENG (Natural gas fired emergency engine EUNGGEN1 in FGNGEMENG)	0		Combustion of pipeline quality natural gas only	0.5	G/HP-H
10/19/2021	CENTURION BROWNSVILLE	TX-0930	Firewater Pumps	800	HP	Use of well-designed and properly maintained engines. Good combustion practices. Limited to 52 hours per year of non-emergency operation. Equipped with non-resettable runtime meter.	0	
3/10/2022	WISCONSIN PUBLIC SERVICE CORPORATION- WESTON PLANT	WI-0314	Reciprocating Internal Combustion Engine (RICE) (P101-P107)	152.3	MMBTU/H	Use of good combustion practices and use of an oxidation catalyst.	4.49	LB/H
3/10/2022	WISCONSIN PUBLIC SERVICE CORPORATION- WESTON PLANT	WI-0314	Emergency Generator (P111)	10.4	MMBTU/H	Use of good combustion practices and total hours of operation may not exceed 200 hours in any 12-consecutive-month period.	1	G/B-HP-H
4/25/2022	SINOVA SILICON LLC	TN-0183	Emergency natural gas-fired engine	2682	HP		5.9	LB/HR
5/5/2022	WEST VIRGINIA STEEL MILL	*WV-0034	Emergency Generator	2000	hp	Subpart JJJJ Certification 100 Hours/Yr Usage Limit	4.41	LB/HR
3/8/2024	WASSON CO2 REMOVAL PLANT	TX-0969	COMPRESSORS OFF-LINE (AOS)	0		PROCESS FIELD GAS DIVERTED TO FLARE	0	
6/27/2024	LANSING BOARD OF WATER AND LIGHT--DELTA ENERGY PARK	MI-0459	FG-ENGINES	29147	BHP	Catalytic oxidation, good combustion practices.	20	LB/H

RBLC Entries for GHG Control from Natural Gas Engines

Date	Facility Name	RBLC ID	PROCESS NAME	THROUGHPUT	THROUGHPUT UNIT	Control Method	Limit No. 1	Unit
1/22/2016	HOLBROOK COMPRESSOR STATION	LA-0292	Waukesha 16V-275GL Compressor Engines Nos. 1-12	5000	HP		21170	TPY
3/31/2016	MID-KANSAS ELECTRIC COMPANY, LLC - RUBART STATION	KS-0030	Spark ignition RICE electricity generating units (EGUs)	10	MW		10692	LB/H
6/3/2016	DTE GAS COMPANY--MILFORD COMPRESSOR STATION	MI-0420	EUN_EM_GEN	225	H/YR	Use of pipeline quality natural gas and energy efficiency measures.	198	T/YR
12/5/2016	HOLLAND BOARD OF PUBLIC WORKS - EAST 5TH STREET	MI-0424	EUNGENGINE (Emergency engine--natural gas)	500	H/YR	Good combustion practices.	116	T/YR
3/24/2017	DTE GAS COMPANY - MILFORD COMPRESSOR STATION	MI-0426	EUN_EM_GEN (Natural gas emergency engine).	205	H/YR	Use of pipeline quality natural gas and energy efficiency measures.	247	T/YR
6/14/2018	MOCKINGBIRD HILL COMPRESSOR STATION	*WV-0031	EG-1 - Auxiliary (Emergency) Generator	755	hp	Engine Manufacturer's design; limited to natural gas; and tune-up the engine once every five years.	0	
12/21/2018	LBWL--ERICKSON STATION	MI-0441	EUEMGNG1--A 1500 HP natural gas fueled emergency engine	1500	HP	Burn pipeline quality natural gas	300	T/YR
12/21/2018	LBWL--ERICKSON STATION	MI-0441	EUEMGNG2	6000	HP	Burn pipeline quality natural gas.	1171	T/YR
2/14/2019	NUCOR STEEL FLORIDA FACILITY	FL-0368	Emergency Engines	0		Good combustion practices	117.1	LB/MMBTU
4/3/2019	ARVAH B. HOPKINS GENERATING STATION	FL-0370	18.82 MW SI Internal Combustion Engine Unit 1A	161.4	MMBtu/hour	Use of new natural gas-fired, thermally efficient SI RICE combined with good combustion and maintenance practices to maintain optimum efficiency	1110	LB/MWH, BASED ON HHV
4/3/2019	ARVAH B. HOPKINS GENERATING STATION	FL-0370	18.82 MW SI Internal Combustion Engine Unit 1B	161.4	MMBtu/hour	Use of new natural gas-fired, thermally efficient SI RICE combined with good combustion and maintenance practices to maintain optimum efficiency	1110	LB/MWH, BASED ON HHV
4/3/2019	ARVAH B. HOPKINS GENERATING STATION	FL-0370	18.82 MW SI Internal Combustion Engine Unit 1C	161.4	MMBtu/hour	Use of new natural gas-fired, thermally efficient SI RICE combined with good combustion and maintenance practices to maintain optimum efficiency	1110	LB/MWH, BASED ON HHV
4/3/2019	ARVAH B. HOPKINS GENERATING STATION	FL-0370	18.82 MW SI Internal Combustion Engine Unit 1D	161.4	MMBtu/hour	Use of new natural gas-fired, thermally efficient SI RICE combined with good combustion and maintenance practices to maintain optimum efficiency	1110	LB/MWH, BASED ON HHV
4/3/2019	ARVAH B. HOPKINS GENERATING STATION	FL-0370	18.82 MW SI Internal Combustion Engine Unit 1E	161.4	MMBtu/hour	Use of new natural gas-fired, thermally efficient SI RICE combined with good combustion and maintenance practices to maintain optimum efficiency	1110	LB/MWH, BASED ON HHV
5/22/2019	MICHIGAN STATE UNIVERSITY	MI-0440	FGENGINES	16500	HP	Utilize low-carbon fuels and implement energy efficiency measures and preventative maintenance pursuant to manufacturer recommendations.	48724	T/YR
12/10/2019	GREEN BAY PACKAGING- MILL DIVISION	WI-0297	Natural Gas-fired Emergency Generator (P39)	675	HP	Only fire natural gas.	200	H/Y
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 10-05 - Austenitizing Furnace Rolls Emergency Generator	636	HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	0	
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 10-06 - Tempering Furnace Rolls Emergency Generator	636	HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	0	
10/19/2021	CENTURION BROWNSVILLE	TX-0930	Firewater Pumps	800	HP	Use of well-designed and properly maintained engines. Good combustion practices. Limited to 52 hours per year of non-emergency operation. Equipped with non-resettable runtime meter.	0	
3/10/2022	WISCONSIN PUBLIC SERVICE CORPORATION- WESTON PLANT	WI-0314	Reciprocating Internal Combustion Engine (RICE) (P101-P107)	152.3	MMBTU/H	Use of good combustion practices and use of pipeline quality natural gas	1100	LB/MWH ELEC. OUTPUT
3/10/2022	WISCONSIN PUBLIC SERVICE CORPORATION- WESTON PLANT	WI-0314	Emergency Generator (P111)	10.4	MMBTU/H	Use of good combustion practices, use of pipeline quality natural gas, and the total hours of operation may not exceed 200 hours in any 12-consectuive-month period.	0	
4/25/2022	SINOVA SILICON LLC	TN-0183	Emergency natural gas-fired engine	2682	HP		145.9	TONS
5/5/2022	WEST VIRGINIA STEEL MILL	*WV-0034	Emergency Generator	2000	hp	100 Hours/Yr Usage Limit	1639	LB/HR
8/31/2022	TENNESSEE VALLEY AUTHORITY - JOHNSONVILLE COMBUSTION TURBINE	*TN-0187	2,952 HP black-start emergency engine	2.08	MMBtu/hr	good combustion and operating practices	121.34	TONS
3/8/2024	WASSON CO2 REMOVAL PLANT	TX-0969	COMPRESSORS OFF-LINE (AOS)	0		PROCESS FIELD GAS DIVERTED TO FLARE, GOOD COMBUSTION PRACTICES	0	
6/27/2024	LANSING BOARD OF WATER AND LIGHT--DELTA ENERGY PARK	MI-0459	FG-ENGINES	29147	BHP	Good combustion practices, use of current energy efficiency measures.	90268	T/YR

RBLC Entries for Nitrogen Oxides Control from Firewater Pumps

Date	Facility Name	RBLC ID	PROCESS NAME	THROUGHPUT	THROUGHPUT UNIT	Control Method	Limit No. 1	Unit
1/6/2015	KENAI NITROGEN OPERATIONS	AK-0083	Diesel Fired Well Pump	2.7	MMBTU/H	Limited Operation of 168 hr/yr.	4.41	LB/MMBTU
1/23/2015	POINT THOMSON PRODUCTION FACILITY	AK-0082	Airstrip Generator Engine	490	hp		4.8	GRAMS/HP-H
1/23/2015	POINT THOMSON PRODUCTION FACILITY	AK-0082	Agitator Generator Engine	98	hp		5.6	GRAMS/HP-H
1/23/2015	POINT THOMSON PRODUCTION FACILITY	AK-0082	Incinerator Generator Engine	102	hp		4.9	GRAMS/HP-H
6/4/2015	BENTELER STEEL TUBE FACILITY	LA-0309	Firewater Pump Engines	288	hp (each)	Complying with 40 CFR 60 Subpart IIII	3	G/BHP-HR
6/5/2015	KOHLER CO-METALS PROCESSING COMPLEX	WI-0271	P10K " Diesel Powered Emergency Generator	0		Expected NOx emission without controls are 0.59 tons/year and 5.9 pounds/hour. Given this low rate of NOx emissions, due to the 200 hour/year operational limitation, the Department believes, based on engineering judgment, that controls are not economically feasible for this unit. Thus, the RICE MACT remains the only control option.	5.9	LB/HR
8/25/2015	LAUDERDALE PLANT	FL-0354	Emergency fire pump engine, 300 HP	29	MMBTU/H	Low-emitting fuel and certified engine	4	G / KWH
8/25/2015	CLEAN ENERGY FUTURE - LORDSTOWN, LLC	OH-0366	Emergency fire pump engine (P004)	140	HP	State-of-the-art combustion design	0.81	LB/H
11/13/2015	MATTAWOMAN ENERGY CENTER	MD-0045	EMERGENCY GENERATOR	1490	HP	EXCLUSIVE USE OF ULTRA LOW SULFUR FUEL AND GOOD COMBUSTION PRACTICES	6.4	G/KW-H
11/13/2015	MATTAWOMAN ENERGY CENTER	MD-0045	EMERGENCY DIESEL ENGINE FOR FIRE WATER PUMP	305	HP	EXCLUSIVE USE OF ULTRA LOW SULFUR FUEL AND GOOD COMBUSTION PRACTICES	4	G/KW-H
12/8/2015	GRAIN PROCESSING CORPORATION	IN-0234	EMERGENCY FIRE PUMP ENGINE	0		GOOD COMBUSTION PRACTICES	9.5	G/HP-H
12/23/2015	LACKAWANNA ENERGY CTR/JESSUP	PA-0309	Fire pump engine	15	gal/hr		3	GM/HP-HR
2/3/2016	CRICKET VALLEY ENERGY CENTER	NY-0103	Emergency fire pump	460	hp	Compliance demonstrated with vendor emission certification and adherence to vendor-specified maintenance recommendations.	2.6	G/BHP-H
2/15/2016	WISCONSIN POWER & LIGHT - NEENAH GENERATING STATION	WI-0263	Fire pump (process P05)	1.27	mmBtu/hr	Good combustion practices, use diesel fuel, and operate <500 hr/yr	0	
3/10/2016	PSEG FOSSIL LLC SEWAREN GENERATING STATION	NJ-0084	Emergency Diesel Fire Pump	100	H/YR	use of ULSD a clean burning fuel, and limited hours of operation	1.7	LB/H
3/31/2016	MID-KANSAS ELECTRIC COMPANY, LLC - RUBART STATION	KS-0030	Compression ignition RICE emergency fire pump	197	HP		3	G/HP-HR
6/17/2016	GREENSVILLE POWER STATION	VA-0325	DIESEL-FIRED WATER PUMP 376 bph (1)	0		Good Combustion Practices/Maintenance	0	
7/19/2016	MIDDLESEX ENERGY CENTER, LLC	NJ-0085	EMERGENCY GENERATOR DIESEL	0	100 H/YR	Use of Ultra Low Sulfur Diesel (ULSD) Oil a clean burning fuel and limited hours of operation	20.6	LB/H
7/19/2016	MIDDLESEX ENERGY CENTER, LLC	NJ-0085	EMERGENCY DIESEL FIRE PUMP	100	H/YR	Use of Ultra Low Sulfur Diesel (ULSD) Oil a clean burning fuel and limited hours of operation	2.05	LB/H
8/3/2016	INDORAMA LAKE CHARLES FACILITY	LA-0314	Diesel Firewater pump engines (6 units)	425	hp	complying with 40 CFR 63 subpart ZZZZ	0	
8/3/2016	INDORAMA LAKE CHARLES FACILITY	LA-0314	Diesel emergency generator engine - EGEN	350	hp	complying with 40 CFR 63 subpart ZZZZ	0	
8/31/2016	ST. CHARLES POWER STATION	LA-0313	SCPS Emergency Diesel Firewater Pump 1	282	HP	Compliance with NESHAP 40 CFR 63 Subpart ZZZZ and NSPS 40 CFR 60 Subpart IIII, and good combustion practices (use of ultra-low sulfur diesel fuel).	1.87	LB/H
9/2/2016	CPV FAIRVIEW ENERGY CENTER	PA-0310	Emergency Fire Pump Engine	0			3	G/BHP-HR
9/23/2016	SOUTH FIELD ENERGY LLC	OH-0367	Emergency fire pump engine (P004)	311	HP	State-of-the-art combustion design	1.79	LB/H
12/5/2016	HOLLAND BOARD OF PUBLIC WORKS - EAST 5TH STREET	MI-0424	EUFPENGINE (Emergency engine--diesel fire pump)	500	H/YR	Good combustion practices.	3	G/HP-H
1/4/2017	INDECK NILES, LLC	MI-0423	EUFPENGINE (Emergency engine--diesel fire pump)	1.66	MMBTU/H	Good combustion practices and meeting NSPS Subpart IIII requirements.	3	G/BHP-H
1/9/2017	MONSANTO LULING PLANT	LA-0323	Standby Generator No. 9 Engine	400	hp	Proper operation and limits on hours of operation for emergency engines and compliance with 40 CFR 60 Subpart IIII	0	
2/17/2017	CAMERON LNG FACILITY	LA-0316	firewater pump engines (8 units)	460	hp	Complying with 40 CFR 60 Subpart IIII	0	
4/19/2017	PALLAS NITROGEN LLC	OH-0368	Emergency Fire Pump Diesel Engine (P008)	460	HP	good combustion control and operating practices and engines designed to meet the stands of 40 CFR Part 60, Subpart IIII	0.3	LB/H
6/30/2017	DONLIN GOLD PROJECT	AK-0084	Fire Pump Diesel Internal Combustion Engines	252	hp	Good Combustion Practices	3.7	G/KW-HR
9/7/2017	TRUMBULL ENERGY CENTER	OH-0370	Emergency fire pump engine (P004)	300	HP	State-of-the-art combustion design	1.97	LB/H
9/27/2017	OREGON ENERGY CENTER	OH-0372	Emergency fire pump engine (P004)	300	HP	State-of-the-art combustion design	1.97	LB/H
10/23/2017	GUERNSEY POWER STATION LLC	OH-0374	Emergency Fire Pump (P006)	410	HP	Certified to the meet the emissions standards in Table 4 of 40 CFR Part 60, Subpart IIII. Good combustion practices per the manufacturers operating manual	2.7	LB/H
2/9/2018	IRONUNITS LLC - TOLEDO HBI	OH-0376	Emergency diesel-fueled fire pump (P006)	250	HP	Comply with NSPS 40 CFR 60 Subpart IIII	1.6	LB/H
2/23/2018	STEEL DYNAMICS, INC. - ENGINEERED BAR PRODUCTS DIVISION	IN-0295	Emergency Diesel Generators	150	hp		14.06	G/HP-HR
2/23/2018	STEEL DYNAMICS, INC. - ENGINEERED BAR PRODUCTS DIVISION	IN-0295	Emergency Diesel Generators	250	hp		9.2	G/KW-HR
3/22/2018	FLAT ROCK ASSEMBLY PLANT	MI-0434	EUFIREPUMPENGS (2 emergency fire pump engines)	250	BHP	Good combustion practices.	3	G/B-HP-H
3/22/2018	FLAT ROCK ASSEMBLY PLANT	MI-0434	EULIFESAFETYENG - One diesel-fueled emergency engine/generator	500	KW	Good combustion practices.	4	G/KW-H
4/19/2018	HARRISON POWER	OH-0377	Emergency Fire Pump (P004)	320	HP	Good combustion practices (ULSD) and compliance with 40 CFR Part 60, Subpart IIII	2.12	LB/H
4/26/2018	C4GT, LLC	VA-0328	Emergency Fire Water Pump	500	HR/YR	Good combustion practices and the use of ultra low sulfur diesel (S15 ULSD) fuel oil with a maximum sulfur content of 15 ppmw.	3	G/HP-HR
5/2/2018	PLAQUEMINES PLANT 1	LA-0328	Emergency Diesel Engine Pump P-39A	375	HP	Good combustion practices and NSPS IIII	4	G/KW-H
5/2/2018	PLAQUEMINES PLANT 1	LA-0328	Emergency Diesel Engine Pump P-39B	300	HP	Good combustion practices and NSPS Subpart IIII	4	G/KW-H
6/29/2018	MEC NORTH, LLC AND MEC SOUTH LLC	MI-0433	EUFPENGINE (South Plant): Fire pump engine	300	HP	Good combustion practices and meeting NSPS Subpart IIII requirements.	3	G/BHP-H
6/29/2018	MEC NORTH, LLC AND MEC SOUTH LLC	MI-0433	EUFPENGINE (North Plant): Fire pump engine	300	HP	Good combustion practices and meeting NSPS Subpart IIII requirements.	3	G/BHP-H
7/10/2018	DRIFTWOOD LNG FACILITY	LA-0349	IC Engines (18)	0		Comply with 40 CFR 60 Subpart IIII and Good Combustion Practices	0	
7/16/2018	BELLE RIVER COMBINED CYCLE POWER PLANT	MI-0435	EUFPENGINE: Fire pump engine	399	BHP	State of the art combustion design.	4	G/KW-H
7/27/2018	SHADY HILLS COMBINED CYCLE FACILITY	FL-0367	Emergency Fire Pump Engine (347 HP)	8700	gal/year	Operate and maintain the engine according to the manufacturer's written instructions	4	G/KW-HR

RBLC Entries for Nitrogen Oxides Control from Firewater Pumps

Date	Facility Name	RBLC ID	PROCESS NAME	THROUGHPUT	THROUGHPUT UNIT	Control Method	Limit No. 1	Unit
7/30/2018	CPV THREE RIVERS ENERGY CENTER	IL-0129	Firewater Pump Engine	0			0	
9/23/2018	MOTOR VEHICLE ASSEMBLY PLANT	TX-0846	FIRE PUMP DIESEL ENGINE	214	kW	Meets EPA Tier 4 requirements	0.4	G/KW
12/21/2018	PTTGCA PETROCHEMICAL COMPLEX	OH-0378	Firewater Pumps (P005 and P006)	402	HP	Certified to the meet the emissions standards in Table 4 of 40 CFR Part 60, Subpart IIII and employ good combustion practices per the manufacturers operating manual	2.64	LB/H
12/31/2018	JACKSON ENERGY CENTER	IL-0130	Firewater Pump Engine	420	horsepower		4	G/KW-HR
1/28/2019	GRAYMONT WESTERN LIME-EDEN	WI-0291	P04 Emergency Diesel Generator	0.22	mmBTU/hr	Good Combustion Practices	4.7	G/KWH
2/6/2019	PETMIN USA INCORPORATED	OH-0379	Black Start Generator (P007)	158	HP	Tier IV engine Tier IV NSPS standards certified by engine manufacturer.	0.104	LB/H
2/14/2019	NUCOR STEEL ARKANSAS	AR-0171	SN-106 Cold Mill 1 Diesel Fired Emergency Generator	1073	bhp	Good operating practices.	2	G/KW-HR
6/13/2019	DIRECT REDUCED IRON FACILITY	LA-0345	IC engines (14 units)	0		Comply with requirements of 40 CFR 60 Subpart IIII	0	
6/13/2019	DIRECT REDUCED IRON FACILITY	LA-0384	IC Engines (EQT0153, EQT0154, EQT0156 - EQT0167)	0		Comply with 40 CFR 60 Subpart IIII	0	
6/24/2019	CHICKAHOMINY POWER LLC	VA-0332	Emergency Fire Water Pump	500	HR/YR	good combustion practices, high efficiency design, and the use of ultra low sulfur diesel (S15 ULSD) fuel oil with a maximum sulfur content of 15 ppmw.	3	G/HP-HR
9/9/2019	EQUISTAR CHEMICALS CHANNELVIEW COMPLEX	TX-0864	EMERGENCY DIESEL ENGINE	0		Tier 4 exhaust emission standards specified at 40 CFR § 1039.101(b)	0	
11/26/2019	INDECK NILES, LLC	*MI-0445	EUFPENGINE (Emergency engine-diesel fire pump	1.66	MMBTU/H	Good Combustion Practices and meeting NSPS Subpart IIII requirements	3	G/BHP-H
12/12/2019	EUEG-5 UNIT - GEISMAR PLANT	*LA-0381	Emergency Engines 2-19 and 3-19 (EQT0904 and EQT0905)	0		Comply with standards of 40 CFR 60 Subpart IIII	0	
2/28/2020	WPL- RIVERSIDE ENERGY CENTER	WI-0302	Diesel-Fired Fire Pump Engine (P04)	290	HP	Only use diesel fuel oil with a sulfur content of no greater than 0.0015% by weight	3.64	LB/H
3/31/2020	MONT BELVIEU NGL FRACTIONATION UNIT	TX-0886	EMERGENCY DIESEL ENGINE	0		Limited operating hours, good combustion practices meets NSPS IIII Tier 3 engine	0	
4/27/2020	WASHINGTON PARISH ENERGY CENTER	*LA-0370	Emergency Fire Pump Engine (EQT0021, ENG-1)	1.1	MM BTU/hr	The use of low sulfur fuels and compliance with 40 CFR 60 Subpart IIII	1.15	LB/HR
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 11-01 - Melt Shop Emergency Generator	260	HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	2.98	G/HP-HR
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 11-02 - Reheat Furnace Emergency Generator	190	HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	2.98	G/HP-HR
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 11-03 - Rolling Mill Emergency Generator	440	HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	2.98	G/HP-HR
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 11-04 - IT Emergency Generator	190	HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	2.98	G/HP-HR
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 11-05 - Radio Tower Emergency Generator	61	HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	3.5	G/HP-HR
8/13/2020	GAS TREATMENT PLANT	AK-0085	Three (3) Firewater Pump Engines and two (2) Emergency Diesel Generators	19.4	gph	Good combustion practices, limit operation to 500 hours per year per engine	3.6	G/HP-HR
9/1/2020	NEMADJI TRAIL ENERGY CENTER	WI-0300	Emergency Diesel Fire Pump (P06)	282	HP	Operation limited to 500 hours/year and shall be operated and maintained according to the manufacturers recommendations.	3	G/HP-H
2/18/2021	SHELL POLYMERS MONACA SITE	*PA-0326	Emergency Generator Parking Garage	0		Use of certified engines, design of engines to include turbocharger and an intercooler/aftercooler, good combustion practices and proper operation and maintenance including certification to applicable federal emission standards	2.37	GRAM
2/18/2021	SHELL POLYMERS MONACA SITE	*PA-0326	Emergency Generator Telecom Hut & Tower	0		The use of certified engines, design of engines to include turbocharger and an intercooler/aftercooler, good combustion practices and proper operation and maintenance including certification to applicable federal emission standards	2.83	G
3/17/2021	BIG RIVER STEEL LLC	AR-0168	Emergency Engines	0		Good Operating Practices, limited hours of operation, Compliance with NSPS Subpart IIII	4.86	G/KW-HR
3/26/2021	KENAI NITROGEN OPERATIONS	AK-0086	Diesel Fired Well Pump	2.7	MMBtu/hr	Good Combustion Practices and Limited Use	4.41	LB/MMBTU
4/19/2021	NUCOR STEEL GALLATIN, LLC	KY-0115	Cold Mill Complex Emergency Generator (EP 09-05)	350	HP	The permittee must develop a Good Combustion and Operating Practices (GCOP) Plan	0	
5/4/2021	SHINTECH PLAQUEMINES PLANT 1	LA-0379	PVC Emergency Combustion Equipment A	450	hp	Good combustion practices/gaseous fuel burning.	6.9	G/HP-HR
5/4/2021	SHINTECH PLAQUEMINES PLANT 1	LA-0379	PVC Emergency Combustion Equipment 2A and 2B	300	hp	Compliance with 40 CFR 60 Subpart IIII.	0.4	G/KW-HR
6/7/2021	SHADY HILLS COMBINED CYCLE FACILITY	FL-0371	Emergency Fire Pump Engine (347 HP)	2.46	MMBtu/hour		4	G/KW-HOUR
1/31/2022	BIG RIVER STEEL LLC	AR-0173	Emergency Engines	0		Good Operating Practices, limited hours of operation, Compliance with NSPS Subpart IIII	3.9	G/BHP-HR
1/31/2022	BIG RIVER STEEL LLC	AR-0173	Emergency Water Pumps	0		Good Operating Practices, limited hours of operation, Compliance with NSPS Subpart IIII	14.06	G/BHP-HR
4/29/2022	WESTLAKE ETHYLENE PLANT	LA-0397	Emergency Generators and Fire Water Pumps (EQT0027 - EQT0032, EQT0044, EQT0045)	0		Compliance with applicable requirements of 40 CFR 60 Subpart IIII	0	
6/3/2022	MAGNOLIA POWER GENERATING STATION UNIT 1	LA-0391	Emergency Diesel Fired Water Pump Engine	355	hp	Compliance with 40 CFR 60 Subpart IIII, good combustion practices, and use of ultra-low sulfur diesel fuel.	3	G/HP-HR
6/23/2022	MEC NORTH, LLC	MI-0451	EUFPENGINE (North Plant): Fire Pump Engine	300	HP	Good combustion practices and meeting NSPS Subpart IIII requirements.	3	G/B-HP-H
6/23/2022	MEC SOUTH, LLC	MI-0452	EUFPENGINE (South Plant): Fire pump engine	300	HP	Good Combustion Practices and meeting NSPS Subpart IIII requirements	3	G/B-HP-H
7/7/2022	LIQUEFACTION PLANT	AK-0088	Auxiliary Air Compressor Engine	14.6	Gal/hr	Good Combustion Practices; Limited Operation; 40 CFR 60 Subpart IIII	0.45	G/HP-HR
7/29/2022	LINCOLN LAND ENERGY CENTER	IL-0133	Fire Water Pump Engine	320	horsepower		4	GRAMS
9/20/2022	INTEL OHIO SITE	OH-0387	275 hp (205 kW) Diesel-Fired Emergency Fire Pump Engine	275	HP	Certified to meet the standards in Table 4 of 40 CFR Part 60, Subpart IIII and good combustion practices	4	G/KW-H
11/21/2022	NORFOLK CRUSH, LLC	NE-0064	Emergency Fire Water Pump Engine 2	510	hp		2.38	G/HP-HR
12/20/2022	LBWL-ERICKSON STATION	MI-0454	EUFPRICE--A 315 HP diesel-fueled emergency engine	2.5	MMBTU/H	Good combustion practices.	3	G/HP-H

RBLC Entries for Nitrogen Oxides Control from Firewater Pumps

Date	Facility Name	RBLC ID	PROCESS NAME	THROUGHPUT	THROUGHPUT UNIT	Control Method	Limit No. 1	Unit
12/22/2022	IRON UNITS LLC	OH-0388	P010 - 225 Hp Diesel engine for bulk material screen	225	HP	Good combustion practices to meet Tier IV emissions	0.15	LB/H
12/22/2022	IRON UNITS LLC	OH-0388	P012 - 125 Hp Diesel Engine for Screen Bypass Screen	125	HP	Good combustion practices to meet Tier IV emissions	0.08	LB/H
12/22/2022	IRON UNITS LLC	OH-0388	P011 and P013 - 100 Hp Diesel Engine	100	HP	Good combustion practices to meet Tier IV emissions	0.07	LB/H
3/30/2023	NUCOR STEEL	IN-0359	Emergency Generator (CC-GEN2)	500	Horsepower	certified engine	3	G/HP-HR
4/28/2023	HYBAR LLC	AR-0180	Emergency Water Pumps	0		Good Operating Practices, limited hours of operation, Compliance with NSPS Subpart IIII	14.06	G/BHP-HR
9/19/2023	NEMADJI TRAIL ENERGY CENTER	*WI-0326	Fire Pump; S06/P06 " Emergency Diesel Fire Pump	282	HP	Good combustion practices and combusting clean fuels: (a) P06 may not operate more than 500 hours per each 12 rolling calendar months. (b) P06 shall be operated and maintained according to the manufacturers recommendations. (c) NOx emissions from P06 may not exceed 3.0 g/hp-hr.	3	G/HP-HR
12/12/2023	GEISMAR PLANT	*LA-0394	05-22 - AO-5 BDL Area PAD Sump Pump Driver	200	horsepower	Use of good combustion practices and compliance with NSPS Subpart IIII	1.26	LB/HR
12/12/2023	GEISMAR PLANT	*LA-0394	52-22 - PAO Area PAD Sump Pump Driver	200	horsepower	Use of good combustion practices, compliance with NSPS Subpart IIII	1.26	LB/HR
12/20/2023	KOCH METHANOL (KME) FACILITY	*LA-0401	FWP-01 - Firewater Pump Engine No. 1	422	horsepower	Compliance with 40 CFR 60 Subpart IIII	3.96	LB/HR
12/20/2023	KOCH METHANOL (KME) FACILITY	*LA-0401	FWP-02 - Firewater Pump Engine No. 2	422	horsepower	Compliance with 40 CFR 60 Subpart IIII	3.96	LB/HR
12/20/2023	KOCH METHANOL (KME) FACILITY	*LA-0401	FWP-03 - Firewater Pump Engine No. 3	237	horsepower	Compliance with the requirements of 40 CFR 60 Subpart IIII	1.49	LB/HR
12/21/2023	CRONUS CHEMICALS	IL-0134	Firewater Pump Engine	369	hp		4	G/KW-HR
6/27/2024	LANSING BOARD OF WATER AND LIGHT--DELTA ENERGY PARK	MI-0459	EUFIREPUMP	500	bhp		4	G/KW-H
12/16/2024	SHINTECH PLAQUEMINE PLANT 4	*LA-0403	4U-11 - Substation Emergency Generator	70	horsepower	Compliance with 40 CFR 60 Subpart IIII	0.4	LB/HR
12/16/2024	SHINTECH PLAQUEMINE PLANT 4	*LA-0403	4M-11C - VCM Emergency Pump A	200	horsepower	Compliance with 40 CFR 60 Subpart IIII	0.98	LB/HR
12/16/2024	SHINTECH PLAQUEMINE PLANT 4	*LA-0403	4M-11D - VCM Emergency Pump B	200	horsepower	Compliance with 40 CFR 60 Subpart IIII	0.98	LB/HR
12/16/2024	SHINTECH PLAQUEMINE PLANT 4	*LA-0403	4M-11E - VCM Emergency Pump C	200	horsepower	Compliance with 40 CFR 60 Subpart IIII	0.98	LB/HR
3/31/2025	SYCAMORE RIVERSIDE ENERGY LLC	IN-0384	emergency fire water pump	282	bhp	Good combustion practices, low sulfur fuel	2.85	G

RBLC Entries for Carbon Monoxide Control from Firewater Pumps

Date	Facility Name	RBLC ID	PROCESS NAME	THROUGHPUT	THROUGHPUT UNIT	Control Method	Limit No. 1	Unit
1/6/2015	KENAI NITROGEN OPERATIONS	AK-0083	Diesel Fired Well Pump	2.7	MMBTU/H	Limited Operation of 168 hr/yr.	0.95	LB/MMBTU
1/23/2015	POINT THOMSON PRODUCTION FACILITY	AK-0082	Airstrip Generator Engine	490	hp		2.6	GRAMS/HP-H
1/23/2015	POINT THOMSON PRODUCTION FACILITY	AK-0082	Agitator Generator Engine	98	hp		3.7	GRAMS/HP-H
1/23/2015	POINT THOMSON PRODUCTION FACILITY	AK-0082	Incinerator Generator Engine	102	hp		3.7	GRAMS/HP-H
6/4/2015	BENTELER STEEL TUBE FACILITY	LA-0309	Firewater Pump Engines	288	hp (each)	Complying with 40 CFR 60 Subpart IIII	0	
8/25/2015	LAUDERDALE PLANT	FL-0354	Emergency fire pump engine, 300 HP	29	MMBTU/H	Low-emitting fuel and certified engine	3.5	G / KWH
8/25/2015	CLEAN ENERGY FUTURE - LORDSTOWN, LLC	OH-0366	Emergency fire pump engine (P004)	140	HP	State-of-the-art combustion design	1.15	LB/H
11/13/2015	MATTAWOMAN ENERGY CENTER	MD-0045	EMERGENCY GENERATOR	1490	HP	EXCLUSIVE USE OF ULTRA LOW SULFUR FUEL AND GOOD COMBUSTION PRACTICES	3.5	G/KW-H
11/13/2015	MATTAWOMAN ENERGY CENTER	MD-0045	EMERGENCY DIESEL ENGINE FOR FIRE WATER PUMP	305	HP	USE OF ULTRA LOW SULFUR DIESEL AND GOOD COMBUSTION PRACTICES	3.5	G/KW-H
12/8/2015	GRAIN PROCESSING CORPORATION	IN-0234	EMERGENCY FIRE PUMP ENGINE	0		GOOD COMBUSTION PRACTICES	2.01	G/HP-H
12/23/2015	LACKAWANNA ENERGY CTR/JESSUP	PA-0309	Fire pump engine	15	gal/hr		0.5	GM/HP-HR
2/3/2016	CRICKET VALLEY ENERGY CENTER	NY-0103	Emergency fire pump	460	hp	Compliance demonstrated with vendor emission certification and adherence to vendor-specified maintenance recommendations.	0.53	G/BHP-H
2/15/2016	WISCONSIN POWER & LIGHT - NEENAH GENERATING STATION	WI-0263	Fire pump (process P05)	1.27	mmBtu/hr	Good combustion practices, use diesel fuel, and operate <500 hr/yr	0	
3/9/2016	OKEECHOBEE CLEAN ENERGY CENTER	FL-0356	One 422-hp emergency fire pump engine	0		Use of clean engine technology	3.5	G / KW-HR
3/10/2016	PSEG FOSSIL LLC SEWAREN GENERATING STATION	NJ-0084	Emergency Diesel Fire Pump	100	H/YR	use of ULSD a clean burning fuel, and limited hours of operation	1.1	LB/H
6/8/2016	BEAUMONT TERMINAL	TX-0799	EMERGENCY ENGINES	0		Equipment specifications and good combustion practices. Operation limited to 100 hours per year.	0.0068	LB/HP-HR
6/17/2016	GREENSVILLE POWER STATION	VA-0325	DIESEL-FIRED WATER PUMP 376 bph (1)	0		Good Combustion Practices/Maintenance	2.6	G/HP-H
7/19/2016	MIDDLESEX ENERGY CENTER, LLC	NJ-0085	EMERGENCY GENERATOR DIESEL	0	100 H/YR	Use of Ultra Low Sulfur Diesel (ULSD) Oil a clean burning fuel and limited hours of operation (<= 100 H/YR)	11.6	LB/H
7/19/2016	MIDDLESEX ENERGY CENTER, LLC	NJ-0085	EMERGENCY DIESEL FIRE PUMP	100	H/YR	Use of Ultra Low Sulfur Diesel (ULSD) Oil a clean burning fuel and limited hours of operation	1.87	LB/H
8/3/2016	INDORAMA LAKE CHARLES FACILITY	LA-0314	Diesel Firewater pump engines (6 units)	425	hp	complying with 40 CFR 63 subpart ZZZZ	0	
8/3/2016	INDORAMA LAKE CHARLES FACILITY	LA-0314	Diesel emergency generator engine - EGEN	350	hp	complying with 40 CFR 63 subpart ZZZZ	0	
8/31/2016	ST. CHARLES POWER STATION	LA-0313	SCPS Emergency Diesel Firewater Pump 1	282	HP	Compliance with NESHAP 40 CFR 63 Subpart ZZZZ and NSPS 40 CFR 60 Subpart IIII, and good combustion practices (use of ultra-low sulfur diesel fuel).	1.62	LB/H
9/2/2016	CPV FAIRVIEW ENERGY CENTER	PA-0310	Emergency Fire Pump Engine	0			2.61	G/BHP-HR
9/23/2016	SOUTH FIELD ENERGY LLC	OH-0367	Emergency fire pump engine (P004)	311	HP	State-of-the-art combustion design	1.79	LB/H
12/5/2016	HOLLAND BOARD OF PUBLIC WORKS - EAST 5TH STREET	MI-0424	EUFPENGINE (Emergency engine--diesel fire pump)	500	H/YR	Good combustion practices.	3.7	G/HP-H
12/20/2016	TOPCHEM POLLOCK, LLC	*LA-0306	Generator Engine DEG-16-1 (EQT035)	460	horsepower	Meet NSPS Subpart IIII Limitations and Good Combustion Practices	3.18	LB/H
12/20/2016	TOPCHEM POLLOCK, LLC	*LA-0306	Pump Engines DFP-16-1 (EQT036)	225	horsepower	Meet NSPS Subpart IIII Limitations and Good Combustion Practices	1.55	LB/H
12/20/2016	TOPCHEM POLLOCK, LLC	*LA-0306	Pump Engine DFP-16-2 (EQT037)	225	horsepower	Meet NSPS Subpart IIII Limitations and Good Combustion Practices	1.55	LB/H
1/4/2017	INDECK NILES, LLC	MI-0423	EUFPENGINE (Emergency engine--diesel fire pump)	1.66	MMBTU/H	Good combustion practices and meeting NSPS Subpart IIII requirements.	2.6	G/BHP-H
1/9/2017	MONSANTO LULING PLANT	LA-0323	Standby Generator No. 9 Engine	400	hp	Proper operation and limits on hours of operation for emergency engines and compliance with 40 CFR 60 Subpart IIII	0	
2/17/2017	CAMERON LNG FACILITY	LA-0316	firewater pump engines (8 units)	460	hp	Complying with 40 CFR 60 Subpart IIII	0	
4/19/2017	PALLAS NITROGEN LLC	OH-0368	Emergency Fire Pump Diesel Engine (P008)	460	HP	good combustion control and operating practices and engines designed to meet the stands of 40 CFR Part 60, Subpart IIII	2.6	LB/H
6/30/2017	DONLIN GOLD PROJECT	AK-0084	Fire Pump Diesel Internal Combustion Engines	252	hp	Good Combustion Practices	3.3	G/KW-HR
9/7/2017	TRUMBULL ENERGY CENTER	OH-0370	Emergency fire pump engine (P004)	300	HP	State-of-the-art combustion design	1.73	LB/H
9/27/2017	OREGON ENERGY CENTER	OH-0372	Emergency fire pump engine (P004)	300	HP	state of the art combustion design	1.73	LB/H
10/23/2017	GUERNSEY POWER STATION LLC	OH-0374	Emergency Fire Pump (P006)	410	HP	Certified to the meet the emissions standards in Table 4 of 40 CFR Part 60, Subpart IIII. Good combustion practices per the manufacturers operating manual.	2.36	LB/H
12/4/2017	DANIA BEACH ENERGY CENTER	FL-0363	Emergency Fire Pump Engine (422 hp)	0		Certified engine	3.5	G / KWH
2/9/2018	IRONUNITS LLC - TOLEDO HBI	OH-0376	Emergency diesel-fueled fire pump (P006)	250	HP	Comply with NSPS 40 CFR 60 Subpart IIII	1.4	LB/H
2/23/2018	STEEL DYNAMICS, INC. - ENGINEERED BAR PRODUCTS DIVISION	IN-0295	Emergency Diesel Generators	150	hp		3.08	G/KW-HR
2/23/2018	STEEL DYNAMICS, INC. - ENGINEERED BAR PRODUCTS DIVISION	IN-0295	Emergency Diesel Generators	250	hp		3.08	G/HP-HR
4/19/2018	HARRISON POWER	OH-0377	Emergency Fire Pump (P004)	320	HP	Good combustion practices (ULSD) and compliance with 40 CFR Part 60, Subpart IIII	1.83	LB/H
4/26/2018	C4GT, LLC	VA-0328	Emergency Fire Water Pump	500	HR/YR	good combustion practices and the use of ultra low sulfur diesel (S15 ULSD) fuel oil with a maximum sulfur content of 15 ppmw.	2.6	G/HP HR
5/2/2018	PLAQUEMINES PLANT 1	LA-0328	Emergency Diesel Engine Pump P-39A	375	HP	Compliance with 40 CFR 60 Subpart IIII	3.5	
5/2/2018	PLAQUEMINES PLANT 1	LA-0328	Emergency Diesel Engine Pump P-39B	300	HP	Compliance with 40 CFR 60 Subpart IIII	3.5	
6/29/2018	MEC NORTH, LLC AND MEC SOUTH LLC	MI-0433	EUFPENGINE (South Plant): Fire pump engine	300	HP	Good combustion practices and meeting NSPS Subpart IIII requirements.	2.6	G/BPH-H
6/29/2018	MEC NORTH, LLC AND MEC SOUTH LLC	MI-0433	EUFPENGINE (North Plant): Fire pump engine	300	HP	Good combustion practices and meeting NSPS Subpart IIII requirements.	2.6	G/BHP-H
7/10/2018	DRIFTWOOD LNG FACILITY	LA-0349	IC Engines (18)	0		Comply with 40 CFR 60 Subpart IIII and Good Combustion Practices	0	
7/16/2018	BELLE RIVER COMBINED CYCLE POWER PLANT	MI-0435	EUFPENGINE: Fire pump engine	399	BHP	State of the art combustion design.	3.5	G/KW-H
7/27/2018	SHADY HILLS COMBINED CYCLE FACILITY	FL-0367	Emergency Fire Pump Engine (347 HP)	8700	gal/year	Operate and maintain the engine according to the manufacturer's written instructions	3.5	G/KW-HOUR
7/30/2018	CPV THREE RIVERS ENERGY CENTER	IL-0129	Firewater Pump Engine	0			0	
9/23/2018	MOTOR VEHICLE ASSEMBLY PLANT	TX-0846	FIRE PUMP DIESEL ENGINE	214	kW	Meets EPA Tier 4 requirements	3.58	G/KW
12/21/2018	LBWL--ERICKSON STATION	MI-0441	EUFPRICE--A 315 HP diesel fueled emergency engine	2.5	MMBTU/H	Good combustion practices.	2.6	G/HP-H
12/21/2018	PTTGCA PETROCHEMICAL COMPLEX	OH-0378	Firewater Pumps (P005 and P006)	402	HP	Certified to the meet the emissions standards in Table 4 of 40 CFR Part 60, Subpart IIII and employ good combustion practices per the manufacturers operating manual	2.31	LB/H
12/31/2018	JACKSON ENERGY CENTER	IL-0130	Firewater Pump Engine	420	horsepower		3.5	G/KW-HR
1/28/2019	GRAYMONT WESTERN LIME-EDEN	WI-0291	P04 Emergency Diesel Generator	0.22	mmBTU/hr	Good Combustion Practices	5	G/KWH
2/14/2019	NUCOR STEEL ARKANSAS	AR-0171	SN-106 Cold Mill 1 Diesel Fired Emergency Generator	1073	bhp	Good operating practices.	4	G/KW-HR
6/13/2019	DIRECT REDUCED IRON FACILITY	LA-0345	IC engines (14 units)	0		Comply with requirements of 40 CFR 60 Subpart IIII	0	
6/13/2019	DIRECT REDUCED IRON FACILITY	LA-0384	IC Engines (EQT0153, EQT0154, EQT0156 - EQT0167)	0		Comply with 40 CFR 60 Subpart IIII	0	

RBLC Entries for Carbon Monoxide Control from Firewater Pumps

Date	Facility Name	RBLC ID	PROCESS NAME	THROUGHPUT	THROUGHPUT UNIT	Control Method	Limit No. 1	Unit
6/24/2019	CHICKAHOMINY POWER LLC	VA-0332	Emergency Fire Water Pump	500	HR/YR	good combustion practices, high efficiency design, and the use of ultra low sulfur diesel (S15 ULSD) fuel oil with a maximum sulfur content of 15 ppmw.	2.6	G/HP-H
9/9/2019	EQUISTAR CHEMICALS CHANNELVIEW COMPLEX	TX-0864	EMERGENCY DIESEL ENGINE	0		Tier 4 exhaust emission standards specified at 40 CFR § 1039.101(b)	0	
11/26/2019	INDECK NILES, LLC	*MI-0445	EUFPENGINE (Emergency engine-diesel fire pump	1.66	MMBTU/H	Good Combustion Practices and meeting NSPS Subpart IIII requirements	2.6	G/BHP-H
12/12/2019	EUEG-5 UNIT - GEISMAR PLANT	*LA-0381	Emergency Engines 2-19 and 3-19 (EQT0904 and EQT0905)	0		Comply with standards of 40 CFR 60 Subpart IIII	0	
2/28/2020	WPL- RIVERSIDE ENERGY CENTER	WI-0302	Diesel-Fired Fire Pump Engine (P04)	290	HP	Good combustion practices	0.33	LB/H
4/27/2020	WASHINGTON PARISH ENERGY CENTER	*LA-0370	Emergency Fire Pump Engine (EQT0021, ENG-1)	1.1	MM BTU/hr	The use of low sulfur fuels and compliance with 40 CFR 60 Subpart IIII	0.4	LB/HR
7/17/2020	PETMIN USA INCORPORATED	OH-0383	Black Start Generator (P007)	158	HP	Tier IV engine Good combustion practices	0.0644	T/YR
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 11-01 - Melt Shop Emergency Generator	260	HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	2.61	G/HP-HR
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 11-02 - Reheat Furnace Emergency Generator	190	HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	2.61	G/HP-HR
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 11-03 - Rolling Mill Emergency Generator	440	HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	2.61	G/HP-HR
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 11-04 - IT Emergency Generator	190	HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	2.61	G/HP-HR
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 11-05 - Radio Tower Emergency Generator	61	HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	3.73	G/HP-HR
8/8/2020	SWEENY OLD OCEAN FACILITIES	TX-0889	Emergency Generator Engines	0		Good combustion practices and limited hours of operation	100	HR/YR
8/13/2020	GAS TREATMENT PLANT	AK-0085	Three (3) Firewater Pump Engines and two (2) Emergency Diesel Generators	19.4	gph	Good combustion practices, limit operation to 500 hours per year per engine	3.3	G/HP-HR
9/1/2020	NEMADJI TRAIL ENERGY CENTER	WI-0300	Emergency Diesel Fire Pump (P06)	282	HP	Operation limited to 500 hours/year and shall be operated and maintained according to the manufacturers recommendations.	2.6	G/HP-H
1/7/2021	LBWL--ERICKSON STATION	MI-0447	EUFPRICE--A 315 HP diesel fueled emergency engine	2.5	MMBTU/H	Good combustion practices	2.6	G/HP-H
2/18/2021	SHELL POLYMERS MONACA SITE	*PA-0326	Emergency Generator Parking Garage	0		The use of certified engines, design of engines to include turbocharger and an intercooler/aftercooler, good combustion practices and proper operation and maintenance including certification to applicable federal emission standards	0.5	G
2/18/2021	SHELL POLYMERS MONACA SITE	*PA-0326	Emergency Generator Telecom Hut & Tower	0		The use of certified engines, design of engines to include turbocharger and an intercooler/aftercooler, good combustion practices and proper operation and maintenance including certification to applicable federal emission standards	0.5	G
3/17/2021	BIG RIVER STEEL LLC	AR-0168	Emergency Engines	0		Good Operating Practices, limited hours of operation, Compliance with NSPS Subpart IIII	3.5	G/KW-HR
3/26/2021	KENAI NITROGEN OPERATIONS	AK-0086	Diesel Fired Well Pump	2.7	MMBtu/hr	Good Combustion Practices and Limited Use	0.95	LB/MMBTU
4/19/2021	NUCOR STEEL GALLATIN, LLC	KY-0115	Cold Mill Complex Emergency Generator (EP 09-05)	350	HP	The permittee must develop a Good Combustion and Operating Practices (GCOP) Plan	0	
5/4/2021	SHINTECH PLAQUEMINES PLANT 1	LA-0379	PVC Emergency Combustion Equipment A	450	hp	Good combustion practices/gaseous fuel burning.	8.5	G/HP-HR
5/4/2021	SHINTECH PLAQUEMINES PLANT 1	LA-0379	PVC Emergency Combustion Equipment 2A and 2B	300	hp	Compliance with 40 CFR 60 Subpart IIII.	2.6	G/HP-HR
6/7/2021	SHADY HILLS COMBINED CYCLE FACILITY	FL-0371	Emergency Fire Pump Engine (347 HP)	2.46	MMBtu/hour		3.5	G/KW-HOUR
1/31/2022	BIG RIVER STEEL LLC	AR-0173	Emergency Engines	0		Good Operating Practices, limited hours of operation, Compliance with NSPS Subpart IIII	0.9	G/BHP-HR
1/31/2022	BIG RIVER STEEL LLC	AR-0173	Emergency Water Pumps	0		Good Operating Practices, limited hours of operation, Compliance with NSPS Subpart IIII	3.03	G/BHP-HR
4/29/2022	WESTLAKE ETHYLENE PLANT	LA-0397	Emergency Generators and Fire Water Pumps (EQT0027 - EQT0032, EQT0044, EQT0045)	0		Compliance with applicable requirements of 40 CFR 60 Subpart IIII	0	
6/3/2022	MAGNOLIA POWER GENERATING STATION UNIT 1	LA-0391	Emergency Diesel Fired Water Pump Engine	355	hp	Compliance with 40 CFR 60 Subpart IIII, good combustion practices, and the use of ultra-low sulfur diesel fuel.	2.6	G/HP-HR
6/23/2022	MEC NORTH, LLC	MI-0451	EUFPENGINE (North Plant): Fire Pump Engine	300	HP	Good combustion practices and meeting NSPS Subpart IIII requirements	2.6	G/B-HP-H
6/23/2022	MEC SOUTH, LLC	MI-0452	EUFPENGINE (South Plant): Fire pump engine	300	HP	Good Combustion Practices and meeting NSPS Subpart IIII requirements	2.6	G/B-HP-H
7/7/2022	LIQUEFACTION PLANT	AK-0088	Auxiliary Air Compressor Engine	14.6	Gal/hr	Good Combustion Practices; Limited Operation; 40 CFR 60 Subpart IIII	3.3	G/HP-HR
7/29/2022	LINCOLN LAND ENERGY CENTER	IL-0133	Fire Water Pump Engine	320	horsepower		3.5	GRAMS
9/20/2022	INTEL OHIO SITE	OH-0387	275 hp (205 kW) Diesel-Fired Emergency Fire Pump Engine	275	HP	Certified to meet the standards in Table 4 of 40 CFR Part 60, Subpart IIII and good combustion practices	3.5	G/KW-H
12/20/2022	LBWL-ERICKSON STATION	MI-0454	EUFPRICE--A 315 HP diesel-fueled emergency engine	2.5	MMBTU/H	Good combustion practices.	2.6	G/HP-H
12/22/2022	IRON UNITS LLC	OH-0388	P010 - 225 Hp Diesel engine for bulk material screen	225	HP	Good combustion practices to meet Tier IV emissions	1.29	LB/H
12/22/2022	IRON UNITS LLC	OH-0388	P012 - 125 Hp Diesel Engine for Screen Bypass Screen	125	HP	Good combustion practices to meet Tier IV emissions	1.03	LB/H
12/22/2022	IRON UNITS LLC	OH-0388	P011 and P013 - 100 Hp Diesel Engine	100	HP	Good combustion practices to meet Tier IV emissions	0.83	LB/H
3/30/2023	NUCOR STEEL	IN-0359	Emergency Generator (CC-GEN2)	500	Horsepower	oxidation catalyst and certified engine	2.61	G/HP-HR
4/28/2023	HYBAR LLC	AR-0180	Emergency Water Pumps	0		Good Operating Practices, limited hours of operation, Compliance with NSPS Subpart IIII	3.03	G/BHP-HR
9/19/2023	NEMADJI TRAIL ENERGY CENTER	*WI-0326	Fire Pump; S06/P06 " Emergency Diesel Fire Pump	282	HP	Good combustion practices: (a) P06 may not operate more than 500 hours per each 12 rolling calendar months. (b) P06 shall be operated and maintained according to the manufacturers recommendations. (c) Carbon monoxide emission from P06 may not exceed 2.6 g/hp-hr.	2.6	G/HP-HR
12/12/2023	GEISMAR PLANT	*LA-0394	05-22 - AO-5 BDL Area PAD Sump Pump Driver	200	horsepower	Use of good combustion practices and compliance with NSPS Subpart IIII	1.14	LB/HR
12/12/2023	GEISMAR PLANT	*LA-0394	52-22 - PAO Area PAD Sump Pump Driver	200	horsepower	Use of good combustion practices, compliance with NSPS Subpart IIII	1.14	LB/HR
12/20/2023	KOCH METHANOL (KME) FACILITY	*LA-0401	FWP-01 - Firewater Pump Engine No. 1	422	horsepower	Compliance with 40 CFR 60 Subpart IIII	3.44	LB/HR
12/20/2023	KOCH METHANOL (KME) FACILITY	*LA-0401	FWP-02 - Firewater Pump Engine No. 2	422	horsepower	Compliance with 40 CFR 60 Subpart IIII	3.44	LB/HR
12/20/2023	KOCH METHANOL (KME) FACILITY	*LA-0401	FWP-03 - Firewater Pump Engine No. 3	237	horsepower	Compliance with the requirements of 40 CFR 60 Subpart IIII	0.5	LB/HR
12/21/2023	CRONUS CHEMICALS	IL-0134	Firewater Pump Engine	369	hp		3.5	G/KW-HR
6/27/2024	LANSING BOARD OF WATER AND LIGHT--DELTA ENERGY PARK	MI-0459	EUFIREPUMP	500	bhp	Good combustion practices	3.5	G/KW-H
12/16/2024	SHINTECH PLAQUEMINE PLANT 4	*LA-0403	4U-11 - Substation Emergency Generator	70	horsepower	Compliance with 40 CFR 60 Subpart IIII	0.58	LB/HR
12/16/2024	SHINTECH PLAQUEMINE PLANT 4	*LA-0403	4M-11C - VCM Emergency Pump A	200	horsepower	Compliance with 40 CFR 60 Subpart IIII	1.15	LB/HR
12/16/2024	SHINTECH PLAQUEMINE PLANT 4	*LA-0403	4M-11D - VCM Emergency Pump B	200	horsepower	Compliance with 40 CFR 60 Subpart IIII	1.15	LB/HR
12/16/2024	SHINTECH PLAQUEMINE PLANT 4	*LA-0403	4M-11E - VCM Emergency Pump C	200	horsepower	Compliance with 40 CFR 60 Subpart IIII	1.15	LB/HR
2/14/2025	DUKE ENERGY INDIANA, INC.- CAYUGA GENERATING STATION	IN-0382	Emergency fire pump	300	hp	good combustion practices	0	
3/31/2025	SYCAMORE RIVERSIDE ENERGY LLC	IN-0384	emergency fire water pump	282	bhp	Good Combustion practices, low sulfur fuel	2.6	G

RBLC Entries for PM_{10} Control from Firewater Pumps

Date	Facility Name	RBLC ID	PROCESS NAME	THROUGHPUT	THROUGHPUT UNIT	Control Method	Limit No. 1	Unit
1/6/2015	KENAI NITROGEN OPERATIONS	AK-0083	Diesel Fired Well Pump	2.7	MMBTU/H	Limited Operation of 168 hr/yr.	0.31	LB/MMBTU
1/23/2015	POINT THOMSON PRODUCTION FACILITY	AK-0082	Airstrip Generator Engine	490	hp		0.15	GRAMS/HP-H
1/23/2015	POINT THOMSON PRODUCTION FACILITY	AK-0082	Agitator Generator Engine	98	hp		0.3	GRAMS/HP-H
1/23/2015	POINT THOMSON PRODUCTION FACILITY	AK-0082	Incinerator Generator Engine	102	hp		0.22	GRAMS/HP-H
6/4/2015	BENTELER STEEL TUBE FACILITY	LA-0309	Firewater Pump Engines	288	hp (each)	Complying with 40 CFR 60 Subpart IIII	0.15	G/BHP-HR
6/5/2015	KOHLER CO-METALS PROCESSING COMPLEX	WI-0271	P10K " Diesel Powered Emergency Generator	0		BACT is the use of ultra-low sulfur distillate in the generator. Compliance with this requirement will be determined using sulfur content testing for all shipments of fuel received.	0.29	;B/HR
7/14/2015	THE EMPIRE DISTRICT ELECTRIC COMPANY	KS-0029	Emergency diesel engine	750	KW	Low sulfur fuel oil (<15 ppm sulfur)	0.15	G PER BHP-HR
8/25/2015	CLEAN ENERGY FUTURE - LORDSTOWN, LLC	OH-0366	Emergency fire pump engine (P004)	140	HP	State-of-the-art combustion design	0.07	LB/H
11/13/2015	MATTAWOMAN ENERGY CENTER	MD-0045	EMERGENCY GENERATOR	1490	HP	EXCLUSIVE USE OF ULTRA LOW SULFUR FUEL AND GOOD COMBUSTION PRACTICES.	0.18	G/HP-H
11/13/2015	MATTAWOMAN ENERGY CENTER	MD-0045	EMERGENCY DIESEL ENGINE FOR FIRE WATER PUMP	305	HP	EXCLUSIVE USE OF ULTRA LOW SULFUR FUEL AND GOOD COMBUSTION PRACTICES.	0.18	G/HP-H
12/8/2015	GRAIN PROCESSING CORPORATION	IN-0234	EMERGENCY FIRE PUMP ENGINE	0		GOOD COMBUSTION PRACTICES	0.16	G/HP-H
12/23/2015	LACKAWANNA ENERGY CTR/JESSUP	PA-0309	Fire pump engine	15	gal/hr		0.11	GM/HP-HR
2/15/2016	WISCONSIN POWER & LIGHT - NEENAH GENERATING STATION	WI-0263	Fire pump (process P05)	1.27	mmBtu/hr	Good combustion practices, use diesel fuel with sulfur content < 15 ppm, and operate <500 hr/yr	0	
3/10/2016	PSEG FOSSIL LLC SEWAREN GENERATING STATION	NJ-0084	Emergency Diesel Fire Pump	100	H/YR	use of ULSD a clean burning fuel, and limited hours of operation	0.1	LB/H
3/31/2016	MID-KANSAS ELECTRIC COMPANY, LLC - RUBART STATION	KS-0030	Compression ignition RICE emergency fire pump	197	HP		0.15	G/HP-HR
6/17/2016	GREENSVILLE POWER STATION	VA-0325	DIESEL-FIRED WATER PUMP 376 bph (1)	0		Ultra Low Sulfur Diesel/Fuel (15 ppm max)	0.3	G/HP-H
7/19/2016	MIDDLESEX ENERGY CENTER, LLC	NJ-0085	EMERGENCY GENERATOR DIESEL	0	100 H/YR	Use of Ultra Low Sulfur Diesel (ULSD) Oil a clean burning fuel and limited hours of operation	0.661	LB/H
7/19/2016	MIDDLESEX ENERGY CENTER, LLC	NJ-0085	EMERGENCY DIESEL FIRE PUMP	100	H/YR	Use of Ultra Low Sulfur Diesel (ULSD) Oil a clean burning fuel and limited hours of operation	0.108	LB/H
8/3/2016	INDORAMA LAKE CHARLES FACILITY	LA-0314	Diesel Firewater pump engines (6 units)	425	hp	complying with 40 CFR 63 subpart ZZZZ	0	
8/3/2016	INDORAMA LAKE CHARLES FACILITY	LA-0314	Diesel emergency generator engine - EGEN	350	hp	complying with 40 CFR 63 subpart ZZZZ	0	
8/31/2016	ST. CHARLES POWER STATION	LA-0313	SCPS Emergency Diesel Firewater Pump 1	282	HP	Compliance with NESHAP 40 CFR 63 Subpart ZZZZ and NSPS 40 CFR 60 Subpart IIII, and good combustion practices (use of ultra-low sulfur diesel fuel).	0.09	LB/H
9/23/2016	SOUTH FIELD ENERGY LLC	OH-0367	Emergency fire pump engine (P004)	311	HP	State-of-the-art combustion design	0.1	LB/H
12/5/2016	HOLLAND BOARD OF PUBLIC WORKS - EAST 5TH STREET	MI-0424	EUFPENGINE (Emergency engine--diesel fire pump)	500	H/YR	Good combustion practices.	0.09	LB/MMBTU
1/4/2017	INDECK NILES, LLC	MI-0423	EUFPENGINE (Emergency engine--diesel fire pump)	1.66	MMBTU/H	Good combustion practices	0.57	LB/H
1/9/2017	MONSANTO LULING PLANT	LA-0323	Standby Generator No. 9 Engine	400	hp	Proper operation and limits on hours of operation for emergency engines and compliance with 40 CFR 60 Subpart IIII	0	
2/17/2017	CAMERON LNG FACILITY	LA-0316	firewater pump engines (8 units)	460	hp	Complying with 40 CFR 60 Subpart IIII	0	
4/19/2017	PALLAS NITROGEN LLC	OH-0368	Emergency Fire Pump Diesel Engine (P008)	460	HP	good combustion control and operating practices and engines designed to meet the stands of 40 CFR Part 60, Subpart IIII	0.02	LB/H
6/30/2017	DONLIN GOLD PROJECT	AK-0084	Fire Pump Diesel Internal Combustion Engines	252	hp	Clean Fuel and Good Combustion Practices	0.19	G/KW-HR
9/7/2017	TRUMBULL ENERGY CENTER	OH-0370	Emergency fire pump engine (P004)	300	HP	Ultra low sulfur diesel fuel	0.1	LB/H
9/27/2017	OREGON ENERGY CENTER	OH-0372	Emergency fire pump engine (P004)	300	HP	Ultra low sulfur diesel fuel	0.1	LB/H
10/23/2017	GUERNSEY POWER STATION LLC	OH-0374	Emergency Fire Pump (P006)	410	HP	Certified to the meet the emissions standards in Table 4 of 40 CFR Part 60, Subpart IIII. Good combustion practices per the manufacturers operating manual.	0.13	LB/H
2/9/2018	IRONUNITS LLC - TOLEDO HBI	OH-0376	Emergency diesel-fueled fire pump (P006)	250	HP	Comply with NSPS 40 CFR 60 Subpart IIII	0.1	LB/H
2/23/2018	STEEL DYNAMICS, INC. - ENGINEERED BAR PRODUCTS DIVISION	IN-0295	Emergency Diesel Generators	150	hp		1.34	G/KW-HR
2/23/2018	STEEL DYNAMICS, INC. - ENGINEERED BAR PRODUCTS DIVISION	IN-0295	Emergency Diesel Generators	250	hp		1.34	G/KW-HR
4/19/2018	HARRISON POWER	OH-0377	Emergency Fire Pump (P004)	320	HP	Good combustion practices (ULSD) and compliance with 40 CFR Part 60, Subpart IIII	0.11	LB/H
4/26/2018	C4GT, LLC	VA-0328	Emergency Fire Water Pump	500	HR/YR	good combustion practices and the use of ultra low sulfur diesel (S15 ULSD) fuel oil with a maximum sulfur content of 15 ppmw.	0.15	G/HP HR
5/2/2018	PLAQUEMINES PLANT 1	LA-0328	Emergency Diesel Engine Pump P-39A	375	HP	Compliance with 40 CFR 60 Subpart IIII.	0.2	
5/2/2018	PLAQUEMINES PLANT 1	LA-0328	Emergency Diesel Engine Pump P-39B	300	HP	Compliance with 40 CFR 60 Subpart IIII	0.2	
6/29/2018	MEC NORTH, LLC AND MEC SOUTH LLC	MI-0433	EUFPENGINE (South Plant): Fire pump engine	300	HP	Diesel particulate filter, good combustion practices and meeting NSPS Subpart IIII requirements.	0.66	LB/H
6/29/2018	MEC NORTH, LLC AND MEC SOUTH LLC	MI-0433	EUFPENGINE (North Plant): Fire pump engine	300	HP	Diesel particulate filter, good combustion practices and meeting NSPS Subpart IIII requirements.	0.66	LB/H
7/10/2018	DRIFTWOOD LNG FACILITY	LA-0349	IC Engines (18)	0		Comply with 40 CFR 60 Subpart IIII and Good Combustion Practices	0	
7/16/2018	BELLE RIVER COMBINED CYCLE POWER PLANT	MI-0435	EUFPENGINE: Fire pump engine	399	BHP	State of the art combustion design.	0.13	LB/H
9/23/2018	MOTOR VEHICLE ASSEMBLY PLANT	TX-0846	FIRE PUMP DIESEL ENGINE	214	kW	Meets EPA Tier 4 requirements	0.02	G/KW
12/21/2018	LBWL--ERICKSON STATION	MI-0441	EUFPRICE--A 315 HP diesel fueled emergency engine	2.5	MMBTU/H	Ultra low sulfur diesel fuel and good combustion practices.	0.12	LB/H
12/21/2018	PTTGCA PETROCHEMICAL COMPLEX	OH-0378	Firewater Pumps (P005 and P006)	402	HP	Certified to the meet the emissions standards in Table 4 of 40 CFR Part 60, Subpart IIII and employ good combustion practices per the manufacturers operating manual	0.13	LB/H
2/6/2019	PETMIN USA INCORPORATED	OH-0379	Black Start Generator (P007)	158	HP	Tier IV engine Good combustion practices	5.22	X10-3 LB/H
2/14/2019	NUCOR STEEL ARKANSAS	AR-0171	SN-106 Cold Mill 1 Diesel Fired Emergency Generator	1073	bhp	Good operating practices.	0.2	G/KW-HR
6/13/2019	DIRECT REDUCED IRON FACILITY	LA-0345	IC engines (14 units)	0		Comply with requirements of 40 CFR 60 Subpart IIII	0	
6/13/2019	DIRECT REDUCED IRON FACILITY	LA-0384	IC Engines (EQT0153, EQT0154, EQT0156 - EQT0167)	0		Comply with 40 CFR 60 Subpart IIII	0	
6/24/2019	CHICKAHOMINY POWER LLC	VA-0332	Emergency Fire Water Pump	500	HR/YR	good combustion practices, high efficiency design, and the use of ultra low sulfur diesel (S15 ULSD) fuel oil with a maximum sulfur content of 15 ppmw.	0.15	G/HP-HR
9/9/2019	EQUISTAR CHEMICALS CHANNELVIEW COMPLEX	TX-0864	EMERGENCY DIESEL ENGINE	0		Tier 4 exhaust emission standards specified at 40 CFR § 1039.101(b)	0	
11/26/2019	INDECK NILES, LLC	*MI-0445	EUFPENGINE (Emergency engine-diesel fire pump	1.66	MMBTU/H	Good combustion practices	0.57	LB/H

RBLC Entries for PM_{10} Control from Firewater Pumps

Date	Facility Name	RBLC ID	PROCESS NAME	THROUGHPUT	THROUGHPUT UNIT	Control Method	Limit No. 1	Unit
12/12/2019	EUEG-5 UNIT - GEISMAR PLANT	*LA-0381	Emergency Engines 2-19 and 3-19 (EQT0904 and EQT0905)	0		Comply with standards of 40 CFR 60 Subpart IIII, limit operation to <= 100 hrs/yr	0	
2/28/2020	WPL- RIVERSIDE ENERGY CENTER	WI-0302	Diesel-Fired Fire Pump Engine (P04)	290	HP	Good combustion practices, use diesel fuel oil with sulfur content of no greater than 0.0015% by weight.	0.11	LB/H
4/27/2020	WASHINGTON PARISH ENERGY CENTER	*LA-0370	Emergency Fire Pump Engine (EQT0021, ENG-1)	1.1	MM BTU/hr	The use of low sulfur fuels and compliance with 40 CFR 60 Subpart IIII	0.04	LB/HR
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 11-01 - Melt Shop Emergency Generator	260	HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	0.15	G/HP-HR
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 11-02 - Reheat Furnace Emergency Generator	190	HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	0.15	G/HP-HR
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 11-03 - Rolling Mill Emergency Generator	440	HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	0.15	G/HP-HR
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 11-04 - IT Emergency Generator	190	HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	0.15	G/HP-HR
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 11-05 - Radio Tower Emergency Generator	61	HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	0.3	G/HP-HR
8/13/2020	GAS TREATMENT PLANT	AK-0085	Three (3) Firewater Pump Engines and two (2) Emergency Diesel Generators	19.4	gph	Good combustion practices, ULSD, and limit operation to 500 hours per year per engine	0.19	G/HP-HR
9/1/2020	NEMADJI TRAIL ENERGY CENTER	WI-0300	Emergency Diesel Fire Pump (P06)	282	HP	Operation limited to 500 hours/year, sulfur content of diesel fuel oil fired may not exceed 15 ppm, and operate and maintain according to the manufacturers recommendations.	0.15	G/HP-H
1/7/2021	LBWL--ERICKSON STATION	MI-0447	EUFPRICE--A 315 HP diesel fueled emergency engine	2.5	MMBTU/H	Ultra low sulfur diesel fuel and good combustion practices	0.12	LB/H
3/17/2021	BIG RIVER STEEL LLC	AR-0168	Emergency Engines	0		Good Operating Practices, limited hours of operation, Compliance with NSPS Subpart IIII	0.2	G/KW-HR
3/26/2021	KENAI NITROGEN OPERATIONS	AK-0086	Diesel Fired Well Pump	2.7	MMBtu/hr	Good Combustion Practices and Limited Use	0.31	LB/MMBTU
4/19/2021	NUCOR STEEL GALLATIN, LLC	KY-0115	Cold Mill Complex Emergency Generator (EP 09-05)	350	HP	The permittee must develop a Good Combustion and Operating Practices (GCOP) Plan	0.15	G/HP-HR
5/4/2021	SHINTECH PLAQUEMINES PLANT 1	LA-0379	PVC Emergency Combustion Equipment A	450	hp	Good combustion practices/gaseous fuel burning.	0.4	G/HP-HR
5/4/2021	SHINTECH PLAQUEMINES PLANT 1	LA-0379	PVC Emergency Combustion Equipment 2A and 2B	300	hp	Compliance with 40 CFR 60 Subpart IIII.	0.15	G/HP-HR
1/31/2022	BIG RIVER STEEL LLC	AR-0173	Emergency Engines	0		Good Operating Practices, limited hours of operation, Compliance with NSPS Subpart IIII	0.1	G/BHP-HR
1/31/2022	BIG RIVER STEEL LLC	AR-0173	Emergency Water Pumps	0		Good Operating Practices, limited hours of operation, Compliance with NSPS Subpart IIII	1	G/BHP-HR
4/29/2022	WESTLAKE ETHYLENE PLANT	LA-0397	Emergency Generators and Fire Water Pumps (EQT0027 - EQT0032, EQT0044, EQT0045)	0		Compliance with applicable requirements of 40 CFR 60 Subpart IIII	0	
6/3/2022	MAGNOLIA POWER GENERATING STATION UNIT 1	LA-0391	Emergency Diesel Fired Water Pump Engine	355	hp	Compliance with 40 CFR 60 Subpart IIII standards, good combustion practices, and the use of ultra-low sulfur diesel fuel.	0.15	G/HP-HR
6/23/2022	MEC NORTH, LLC	MI-0451	EUFPENGINE (North Plant): Fire Pump Engine	300	HP	Diesel particulate filter, good combustion practices and meeting NSPS Subpart IIII requirements.	0.66	LB/H
6/23/2022	MEC SOUTH, LLC	MI-0452	EUFPENGINE (South Plant): Fire pump engine	300	HP	Diesel particulate filter, Good Combustion Practices and meeting NSPS Subpart IIII requirements	0.66	LB/H
7/7/2022	LIQUEFACTION PLANT	AK-0088	Auxiliary Air Compressor Engine	14.6	Gal/hr	Good Combustion Practices; Limited Operation; 40 CFR 60 Subpart IIII	0.022	G/HP-HR
9/20/2022	INTEL OHIO SITE	OH-0387	275 hp (205 kW) Diesel-Fired Emergency Fire Pump Engine	275	HP	Certified to meet the standards in Table 4 of 40 CFR Part 60, Subpart IIII and good combustion practices	0.6	LB/H
9/27/2022	GENERAL MOTORS LLC ORION ASSEMBLY	MI-0453	FGEMENGINES	500	h/yr	Hours of Operation Restriction, Good Combustion Practices, Compliance with NSPS	0.15	G/B-HP-H
12/20/2022	LBWL-ERICKSON STATION	MI-0454	EUFPRICE--A 315 HP diesel-fueled emergency engine	2.5	MMBTU/H	Ultra low sulfur diesel fuel and good combustion practices.	0.69	LB/H
12/22/2022	IRON UNITS LLC	OH-0388	P010 - 225 Hp Diesel engine for bulk material screen	225	HP	Good combustion practices to meet Tier IV emissions	0.02	LB/H
12/22/2022	IRON UNITS LLC	OH-0388	P012 - 125 Hp Diesel Engine for Screen Bypass Screen	125	HP	Good combustion practices to meet Tier IV emissions	0.01	LB/H
12/22/2022	IRON UNITS LLC	OH-0388	P011 and P013 - 100 Hp Diesel Engine	100	HP	Good combustion practices to meet Tier IV emissions	0.01	LB/H
3/30/2023	NUCOR STEEL	IN-0359	Emergency Generator (CC-GEN2)	500	Horsepower	certified engine	0.15	G/HP-H
4/28/2023	HYBAR LLC	AR-0180	Emergency Water Pumps	0		Good Operating Practices, limited hours of operation, Compliance with NSPS Subpart IIII	1	G/BHP-HR
12/12/2023	GEISMAR PLANT	*LA-0394	05-22 - AO-5 BDL Area PAD Sump Pump Driver	200	horsepower	Use of good combustion practices, compliance with NSPS Subpart IIII, and limiting non-emergency operation to no more than 100 hours per year	0.06	LB/HR
12/12/2023	GEISMAR PLANT	*LA-0394	52-22 - PAO Area PAD Sump Pump Driver	200	horsepower	Use of good combustion practices, compliance with NSPS Subpart IIII, and limiting non-emergency operation to no more than 100 hours per year	0.06	LB/HR
12/13/2023	DESTREHAN OIL PROCESSING FACILITY	*LA-0402	HLK39 - Emergency Diesel Fire Pump Engine (EQT0094)	200	horsepower	Compliance with 40 CFR 60 Subpart IIII	0.14	LB/H
12/20/2023	KOCH METHANOL (KME) FACILITY	*LA-0401	FWP-01 - Firewater Pump Engine No. 1	422	horsepower	Compliance with 40 CFR 60 Subpart IIII	0.2	LB/HR
12/20/2023	KOCH METHANOL (KME) FACILITY	*LA-0401	FWP-02 - Firewater Pump Engine No. 2	422	horsepower	Compliance with 40 CFR 60 Subpart IIII	0.2	LB/HR
12/20/2023	KOCH METHANOL (KME) FACILITY	*LA-0401	FWP-03 - Firewater Pump Engine No. 3	237	horsepower	Compliance with the requirements of 40 CFR 60 Subpart IIII	0.06	LB/HR
12/21/2023	CRONUS CHEMICALS	IL-0134	Firewater Pump Engine	369	hp		0.2	G/KW-HR
6/27/2024	LANSING BOARD OF WATER AND LIGHT--DELTA ENERGY PARK	MI-0459	EUFIREPUMP	500	bhp	Good combustion practices, use of ULSD	1.1	LB/H
12/16/2024	SHINTECH PLAQUEMINE PLANT 4	*LA-0403	4U-11 - Substation Emergency Generator	70	horsepower	Compliance with 40 CFR 60 Subpart IIII	0.05	LB/HR
12/16/2024	SHINTECH PLAQUEMINE PLANT 4	*LA-0403	4M-11C - VCM Emergency Pump A	200	horsepower	Compliance with 40 CFR 60 Subpart IIII	0.07	LB/HR
12/16/2024	SHINTECH PLAQUEMINE PLANT 4	*LA-0403	4M-11D - VCM Emergency Pump B	200	horsepower	Compliance with 40 CFR 60 Subpart IIII	0.07	LB/HR
12/16/2024	SHINTECH PLAQUEMINE PLANT 4	*LA-0403	4M-11E - VCM Emergency Pump C	200	horsepower	Compliance with 40 CFR 60 Subpart IIII	0.07	LB/HR
3/31/2025	SYCAMORE RIVERSIDE ENERGY LLC	IN-0384	emergency fire water pump	282	bhp	Good combustion practice, low sulfur fuel	0.17	G

RBLC Entries for $PM_{2.5}$ Control from Firewater Pumps

Date	Facility Name	RBLC ID	PROCESS NAME	THROUGHPUT	THROUGHPUT UNIT	Control Method	Limit No. 1	Unit
1/6/2015	KENAI NITROGEN OPERATIONS	AK-0083	Diesel Fired Well Pump	2.7	MMBTU/H	Limited Operation of 168 hr/yr.	0.31	LB/MMBTU
1/23/2015	POINT THOMSON PRODUCTION FACILITY	AK-0082	Airstrip Generator Engine	490	hp		0.15	GRAMS/HP-H
1/23/2015	POINT THOMSON PRODUCTION FACILITY	AK-0082	Agitator Generator Engine	98	hp		0.3	GRAMS/HP-H
1/23/2015	POINT THOMSON PRODUCTION FACILITY	AK-0082	Incinerator Generator Engine	102	hp		0.22	GRAMS/HP-H
6/4/2015	BENTELER STEEL TUBE FACILITY	LA-0309	Firewater Pump Engines	288	hp (each)	Complying with 40 CFR 60 Subpart IIII	0.15	G/BHP-HR
6/5/2015	KOHLER CO-METALS PROCESSING COMPLEX	WI-0271	P10K " Diesel Powered Emergency Generator	0		BACT is the use of ultra-low sulfur distillate in the generator. Compliance with this requirement will be determined using sulfur content testing for all shipments of fuel received.	0.29	LB/HR
7/14/2015	THE EMPIRE DISTRICT ELECTRIC COMPANY	KS-0029	Emergency diesel engine	750	KW	Low sulfur fuel oil (<15 ppm sulfur)	0.15	G PER BHP-HR
8/25/2015	CLEAN ENERGY FUTURE - LORDSTOWN, LLC	OH-0366	Emergency fire pump engine (P004)	140	HP	State-of-the-art combustion design	0.07	LB/H
11/13/2015	MATTAWOMAN ENERGY CENTER	MD-0045	EMERGENCY GENERATOR	1490	HP	EXCLUSIVE USE OF ULTRA LOW SULFUR FUEL AN DGOOD COMBUSTION PRACTICES	0.18	G/HP-H
11/13/2015	MATTAWOMAN ENERGY CENTER	MD-0045	EMERGENCY DIESEL ENGINE FOR FIRE WATER PUMP	305	HP	EXCLUSIVE USE OF ULTRA LOW SULFUR FUEL AND GOOD COMBUSTION PRACTICES	0.18	G/HP-H
12/23/2015	LACKAWANNA ENERGY CTR/JESSUP	PA-0309	Fire pump engine	15	gal/hr		0.11	GM/HP-HR
2/15/2016	WISCONSIN POWER & LIGHT - NEENAH GENERATING STATION	WI-0263	Fire pump (process P05)	1.27	mmBtu/hr	Good combustion practices, use diesel fuel with sulfur content < 15 ppm, and operate <500 hr/yr	0	
3/10/2016	PSEG FOSSIL LLC SEWAREN GENERATING STATION	NJ-0084	Emergency Diesel Fire Pump	100	H/YR	use of ULSD a clean burning fuel, and limited hours of operation	0.1	LB/H
3/31/2016	MID-KANSAS ELECTRIC COMPANY, LLC - RUBART STATION	KS-0030	Compression ignition RICE emergency fire pump	197	HP		0.15	G/HP-HR
6/17/2016	GREENSVILLE POWER STATION	VA-0325	DIESEL-FIRED WATER PUMP 376 bph (1)	0		Ultra Low Sulfur Diesel/Fuel (15 ppm max)	0.3	G/HP-H
7/19/2016	MIDDLESEX ENERGY CENTER, LLC	NJ-0085	EMERGENCY GENERATOR DIESEL	0	100 H/YR	Use of Ultra Low Sulfur Diesel (ULSD) Oil a clean burning fuel and limited hours of operation	0.661	LB/H
7/19/2016	MIDDLESEX ENERGY CENTER, LLC	NJ-0085	EMERGENCY DIESEL FIRE PUMP	100	H/YR	Use of ULSD a clean burning fuel and limited hours of operation	0.108	LB/H
8/3/2016	INDORAMA LAKE CHARLES FACILITY	LA-0314	Diesel Firewater pump engines (6 units)	425	hp	complying with 40 CFR 63 subpart ZZZZ	0	
8/3/2016	INDORAMA LAKE CHARLES FACILITY	LA-0314	Diesel emergency generator engine - EGEN	350	hp	complying with 40 CFR 63 subpart ZZZZ	0	
8/31/2016	ST. CHARLES POWER STATION	LA-0313	SCPS Emergency Diesel Firewater Pump 1	282	HP	Compliance with NESHAP 40 CFR 63 Subpart ZZZZ and NSPS 40 CFR 60 Subpart IIII, and good combustion practices (use of ultra-low sulfur diesel fuel).	0.09	LB/H
9/23/2016	SOUTH FIELD ENERGY LLC	OH-0367	Emergency fire pump engine (P004)	311	HP	State-of-the-art combustion design	0.1	LB/H
12/5/2016	HOLLAND BOARD OF PUBLIC WORKS - EAST 5TH STREET	MI-0424	EUFPENGINE (Emergency engine--diesel fire pump)	500	H/YR	Good combustion practices.	0.09	LB/MMBTU
12/20/2016	TOPCHEM POLLOCK, LLC	*LA-0306	Generator Engine DEG-16-1 (EQT035)	460	horsepower	Meet NSPS Subpart IIII Limitations and Good Combustion Practices	0.18	LB/H
12/20/2016	TOPCHEM POLLOCK, LLC	*LA-0306	Pump Engines DFP-16-1 (EQT036)	225	horsepower	Meet NSPS Subpart IIII Limitations and Good Combustion Practices	0.09	LB/H
12/20/2016	TOPCHEM POLLOCK, LLC	*LA-0306	Pump Engine DFP-16-2 (EQT037)	225	horsepower	Meet NSPS Subpart IIII Limitations and Good Combustion Practices	0.09	LB/H
1/4/2017	INDECK NILES, LLC	MI-0423	EUFPENGINE (Emergency engine--diesel fire pump)	1.66	MMBTU/H	Good combustion practices	0.57	LB/H
1/9/2017	MONSANTO LULING PLANT	LA-0323	Standby Generator No. 9 Engine	400	hp	Proper operation and limits on hours of operation for emergency engines and compliance with 40 CFR 60 Subpart IIII	0	
2/17/2017	CAMERON LNG FACILITY	LA-0316	firewater pump engines (8 units)	460	hp	Complying with 40 CFR 60 Subpart IIII	0	
4/19/2017	PALLAS NITROGEN LLC	OH-0368	Emergency Fire Pump Diesel Engine (P008)	460	HP	good combustion control and operating practices and engines designed to meet the stands of 40 CFR Part 60, Subpart IIII	0.02	LB/H
6/30/2017	DONLIN GOLD PROJECT	AK-0084	Fire Pump Diesel Internal Combustion Engines	252	hp	Clean Fuel and Good Combustion Practices	0.19	G/KW-HR
9/7/2017	TRUMBULL ENERGY CENTER	OH-0370	Emergency fire pump engine (P004)	300	HP	Ultra low sulfur diesel fuel	0.1	LB/H
9/27/2017	OREGON ENERGY CENTER	OH-0372	Emergency fire pump engine (P004)	300	HP	Ultra low sulfur diesel fuel	0.1	LB/H
10/23/2017	GUERNSEY POWER STATION LLC	OH-0374	Emergency Fire Pump (P006)	410	HP	Certified to the meet the emissions standards in Table 4 of 40 CFR Part 60, Subpart IIII. Good combustion practices per the manufacturers operating manual.	0.13	LB/H
2/9/2018	IRONUNITS LLC - TOLEDO HBI	OH-0376	Emergency diesel-fueled fire pump (P006)	250	HP	Comply with NSPS 40 CFR 60 Subpart IIII	0.1	LB/H
4/19/2018	HARRISON POWER	OH-0377	Emergency Fire Pump (P004)	320	HP	Good combustion practices (ULSD) and compliance with 40 CFR Part 60, Subpart IIII	0.11	LB/H
4/26/2018	C4GT, LLC	VA-0328	Emergency Fire Water Pump	500	HR/YR	good combustion practices and the use of ultra low sulfur diesel (S15 ULSD) fuel oil with a maximum sulfur content of 15 ppmw.	0.15	G/HP HR
5/2/2018	PLAQUEMINES PLANT 1	LA-0328	Emergency Diesel Engine Pump P-39A	375	HP	Compliance with 40 CFR 60 Subpart IIII	0.2	
5/2/2018	PLAQUEMINES PLANT 1	LA-0328	Emergency Diesel Engine Pump P-39B	300	HP	Compliance with 40 CFR 60 Subpart III	0.2	
6/29/2018	MEC NORTH, LLC AND MEC SOUTH LLC	MI-0433	EUFPENGINE (South Plant): Fire pump engine	300	HP	Diesel particulate filter, good combustion practices and meeting NSPS Subpart IIII requirements.	0.66	LB/H
6/29/2018	MEC NORTH, LLC AND MEC SOUTH LLC	MI-0433	EUFPENGINE (North Plant): Fire pump engine	300	HP	Diesel particulate filter, good combustion practices and meeting NSPS Subpart IIII requirements.	0.66	LB/H
7/10/2018	DRIFTWOOD LNG FACILITY	LA-0349	IC Engines (18)	0		Comply with 40 CFR 60 Subpart IIII and Good Combustion Practices	0	
7/16/2018	BELLE RIVER COMBINED CYCLE POWER PLANT	MI-0435	EUFPENGINE: Fire pump engine	399	BHP	State of the art combustion design.	0.13	LB/H
9/23/2018	MOTOR VEHICLE ASSEMBLY PLANT	TX-0846	FIRE PUMP DIESEL ENGINE	214	kW	Meets EPA Tier 4 requirements	0.02	G/KW
12/21/2018	LBWL--ERICKSON STATION	MI-0441	EUFPRICE--A 315 HP diesel fueled emergency engine	2.5	MMBTU/H	Ultra low sulfur diesel fuel and good combustion practices.	0.12	LB/H
12/21/2018	PTTGCA PETROCHEMICAL COMPLEX	OH-0378	Firewater Pumps (P005 and P006)	402	HP	Certified to the meet the emissions standards in Table 4 of 40 CFR Part 60, Subpart IIII and employ good combustion practices per the manufacturers operating manual	0.13	LB/H
2/6/2019	PETMIN USA INCORPORATED	OH-0379	Black Start Generator (P007)	158	HP	Tier IV engine Good combustion practices	5.22	X10-3 LB/H
2/14/2019	NUCOR STEEL ARKANSAS	AR-0171	SN-106 Cold Mill 1 Diesel Fired Emergency Generator	1073	bhp	Good operating practices.	0.2	G/KW-HR
6/13/2019	DIRECT REDUCED IRON FACILITY	LA-0345	IC engines (14 units)	0		Comply with requirements of 40 CFR 60 Subpart IIII	0	
6/13/2019	DIRECT REDUCED IRON FACILITY	LA-0384	IC Engines (EQT0153, EQT0154, EQT0156 - EQT0167)	0		Comply with 40 CFR 60 Subpart IIII	0	
6/24/2019	CHICKAHOMINY POWER LLC	VA-0332	Emergency Fire Water Pump	500	HR/YR	good combustion practices, high efficiency design, and the use of ultra low sulfur diesel (S15 ULSD) fuel oil with a maximum sulfur content of 15 ppmw.	0.15	G/HP-HR
9/9/2019	EQUISTAR CHEMICALS CHANNELVIEW COMPLEX	TX-0864	EMERGENCY DIESEL ENGINE	0		Tier 4 exhaust emission standards specified at 40 CFR § 1039.101(b)	0	
11/26/2019	INDECK NILES, LLC	*MI-0445	EUFPENGINE (Emergency engine-diesel fire pump	1.66	MMBTU/H	Good combustion practices	0.57	LB/H

RBLC Entries for $PM_{2.5}$ Control from Firewater Pumps

Date	Facility Name	RBLC ID	PROCESS NAME	THROUGHPUT	THROUGHPUT UNIT	Control Method	Limit No. 1	Unit
12/12/2019	EUEG-5 UNIT - GEISMAR PLANT	*LA-0381	Emergency Engines 2-19 and 3-19 (EQT0904 and EQT0905)	0		Comply with standards of 40 CFR 60 Subpart IIII Limit operation to <= 100 hrs/yr	0	
4/27/2020	WASHINGTON PARISH ENERGY CENTER	*LA-0370	Emergency Fire Pump Engine (EQT0021, ENG-1)	1.1	MM BTU/hr	The use of low sulfur fuels and compliance with 40 CFR 60 Subpart IIII	0.04	LB/HR
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 11-01 - Melt Shop Emergency Generator	260	HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	0.15	G/HP-HR
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 11-02 - Reheat Furnace Emergency Generator	190	HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	0.15	G/HP-HR
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 11-03 - Rolling Mill Emergency Generator	440	HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	0.15	G/HP-HR
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 11-04 - IT Emergency Generator	190	HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	0.15	G/HP-HR
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 11-05 - Radio Tower Emergency Generator	61	HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	0.3	G/HP-HR
8/13/2020	GAS TREATMENT PLANT	AK-0085	Three (3) Firewater Pump Engines and two (2) Emergency Diesel Generators	19.4	gph	Good combustion practices, ULSD, and limit operation to 500 hours per year per engine	0.19	G/HP-HR
9/1/2020	NEMADJI TRAIL ENERGY CENTER	WI-0300	Emergency Diesel Fire Pump (P06)	282	HP	Operation limited to 500 hours/year, sulfur content of diesel fuel oil fired may not exceed 15 ppm, and shall be operated and maintained according to the manufacturers recommendations.	0.15	G/HP-H
1/7/2021	LBWL--ERICKSON STATION	MI-0447	EUFPRICE--A 315 HP diesel fueled emergency engine	2.5	MMBTU/H	Ultra low sulfur diesel fuel and good combustion practices.	0.12	LB/H
2/18/2021	SHELL POLYMERS MONACA SITE	*PA-0326	Emergency Generator Parking Garage	0		LAER PM2.5 BACT PM/PM25 certified engines,include turbocharger and intercooler/aftercooler GCP ULSD	0.06	G
2/18/2021	SHELL POLYMERS MONACA SITE	*PA-0326	Emergency Generator Telecom Hut & Tower	0		LAER PM2.5 BACT PM/PM25 certified engines,include turbocharger and intercooler/aftercooler GCP ULSD	0.22	G
3/17/2021	BIG RIVER STEEL LLC	AR-0168	Emergency Engines	0		Good Operating Practices, limited hours of operation, Compliance with NSPS Subpart IIII	0.2	G/KW-HR
3/26/2021	KENAI NITROGEN OPERATIONS	AK-0086	Diesel Fired Well Pump	2.7	MMBtu/hr	Good Combustion Practices and Limited Use	0.31	LB/MMBTU
4/19/2021	NUCOR STEEL GALLATIN, LLC	KY-0115	Cold Mill Complex Emergency Generator (EP 09-05)	350	HP	The permittee must develop a Good Combustion and Operating Practices (GCOP) Plan	0.15	G/HP-HR
5/4/2021	SHINTECH PLAQUEMINES PLANT 1	LA-0379	PVC Emergency Combustion Equipment 2A and 2B	300	hp	Compliance with 40 CFR 60 Subpart IIII.	0.15	G/HP-HR
1/31/2022	BIG RIVER STEEL LLC	AR-0173	Emergency Engines	0		Good Operating Practices, limited hours of operation, Compliance with NSPS Subpart IIII	0.1	G/BHP-HR
1/31/2022	BIG RIVER STEEL LLC	AR-0173	Emergency Water Pumps	0		Good Operating Practices, limited hours of operation, Compliance with NSPS Subpart IIII	1	G/BHP-HR
4/29/2022	WESTLAKE ETHYLENE PLANT	LA-0397	Emergency Generators and Fire Water Pumps (EQT0027 - EQT0032, EQT0044, EQT0045)	0		Compliance with applicable requirements of 40 CFR 60 Subpart IIII	0	
6/3/2022	MAGNOLIA POWER GENERATING STATION UNIT 1	LA-0391	Emergency Diesel Fired Water Pump Engine	355	hp	Compliance with 40 CFR 60 Subpart IIII, good combustion practices, and the use of ultra-low sulfur diesel fuel.	0.15	G/HP-HR
6/23/2022	MEC NORTH, LLC	MI-0451	EUFPENGINE (North Plant): Fire Pump Engine	300	HP	Diesel particulate filter, good combustion practices and meeting NSPS Subpart IIII requirements.	0.66	LB/H
6/23/2022	MEC SOUTH, LLC	MI-0452	EUFPENGINE (South Plant): Fire pump engine	300	HP	Diesel particulate filter, Good Combustion Practices and meeting NSPS Subpart IIII requirements	0.66	LB/H
7/7/2022	LIQUEFACTION PLANT	AK-0088	Auxiliary Air Compressor Engine	14.6	Gal/hr	Good Combustion Practices; Limited Operation; 40 CFR 60 Subpart IIII	0.022	G/HP-HR
9/20/2022	INTEL OHIO SITE	OH-0387	275 hp (205 kW) Diesel-Fired Emergency Fire Pump Engine	275	HP	Certified to meet the standards in Table 4 of 40 CFR Part 60, Subpart IIII and good combustion practices	0.6	LB/H
9/27/2022	GENERAL MOTORS LLC ORION ASSEMBLY	MI-0453	FGEMENGINES	500	h/yr	Hours of Operation Restriction, Good Combustion Practices, Compliance with NSPS	0.15	G/B-HP-H
12/20/2022	LBWL-ERICKSON STATION	MI-0454	EUFPRICE--A 315 HP diesel-fueled emergency engine	2.5	MMBTU/H	Ultra low sulfur diesel fuel and good combustion practices.	0.69	LB/H
12/22/2022	IRON UNITS LLC	OH-0388	P010 - 225 Hp Diesel engine for bulk material screen	225	HP	Good combustion practices to meet Tier IV emissions	0.02	LB/H
12/22/2022	IRON UNITS LLC	OH-0388	P012 - 125 Hp Diesel Engine for Screen Bypass Screen	125	HP	Good combustion practices to meet Tier IV emissions	0.01	LB/H
12/22/2022	IRON UNITS LLC	OH-0388	P011 and P013 - 100 Hp Diesel Engine	100	HP	Good combustion practices to meet Tier IV emissions	0.01	LB/H
3/30/2023	NUCOR STEEL	IN-0359	Emergency Generator (CC-GEN2)	500	Horsepower	certified engine	0.15	G/HP-H
4/28/2023	HYBAR LLC	AR-0180	Emergency Water Pumps	0		Good Operating Practices, limited hours of operation, Compliance with NSPS Subpart IIII	1	G/BHP-HR
12/12/2023	GEISMAR PLANT	*LA-0394	05-22 - AO-5 BDL Area PAD Sump Pump Driver	200	horsepower	Use of good combustion practices, compliance with NSPS Subpart IIII, and limiting non-emergency operation to no more than 100 hours per year	0.06	LB/HR
12/12/2023	GEISMAR PLANT	*LA-0394	52-22 - PAO Area PAD Sump Pump Driver	200	horsepower	Use of good combustion practices, compliance with NSPS Subpart IIII, and limiting non-emergency operation to no more than 100 hours per year	0.06	LB/HR
12/13/2023	DESTREHAN OIL PROCESSING FACILITY	*LA-0402	HLK39 - Emergency Diesel Fire Pump Engine (EQT0094)	200	horsepower	Compliance with 40 CFR 60 Subpart IIII	0.14	LB/H
12/20/2023	KOCH METHANOL (KME) FACILITY	*LA-0401	FWP-01 - Firewater Pump Engine No. 1	422	horsepower	Compliance with 40 CFR 60 Subpart IIII	0.2	LB/HR
12/20/2023	KOCH METHANOL (KME) FACILITY	*LA-0401	FWP-02 - Firewater Pump Engine No. 2	422	horsepower	Compliance with 40 CFR 60 Subpart IIII	0.2	LB/HR
12/20/2023	KOCH METHANOL (KME) FACILITY	*LA-0401	FWP-03 - Firewater Pump Engine No. 3	237	horsepower	Compliance with the requirements of 40 CFR 60 Subpart IIII	0.06	LB/HR
12/21/2023	CRONUS CHEMICALS	IL-0134	Firewater Pump Engine	369	hp		0.2	G/KW-HR
6/27/2024	LANSING BOARD OF WATER AND LIGHT--DELTA ENERGY PARK	MI-0459	EUFIREPUMP	500	bhp	Good combustion practices, use of ULSD	1.1	LB/H
12/16/2024	SHINTECH PLAQUEMINE PLANT 4	*LA-0403	4U-11 - Substation Emergency Generator	70	horsepower	Compliance with 40 CFR 60 Subpart IIII	0.05	LB/HR
12/16/2024	SHINTECH PLAQUEMINE PLANT 4	*LA-0403	4M-11C - VCM Emergency Pump A	200	horsepower	Compliance with 40 CFR 60 Subpart IIII	0.07	LB/HR
12/16/2024	SHINTECH PLAQUEMINE PLANT 4	*LA-0403	4M-11D - VCM Emergency Pump B	200	horsepower	Compliance with 40 CFR 60 Subpart IIII	0.07	LB/HR
12/16/2024	SHINTECH PLAQUEMINE PLANT 4	*LA-0403	4M-11E - VCM Emergency Pump C	200	horsepower	Compliance with 40 CFR 60 Subpart IIII	0.76	LB/HR
3/31/2025	SYCAMORE RIVERSIDE ENERGY LLC	IN-0384	emergency fire water pump	282	bhp	Good combustion practices, low sulfur fuel	0.17	G

RBLC Entries for Sulfur Dioxide Control from Firewater Pumps

Date	Facility Name	RBLC ID	PROCESS NAME	THROUGHPUT	THROUGHPUT UNIT	Control Method	Limit No. 1	Unit
6/4/2015	BENTELER STEEL TUBE FACILITY	LA-0309	Firewater Pump Engines	288	hp (each)		0	
8/25/2015	LAUDERDALE PLANT	FL-0354	Emergency fire pump engine, 300 HP	29	MMBTU/H	Limit in S in fuel	0.0015	% S IN ULSD
12/8/2015	GRAIN PROCESSING CORPORATION	IN-0234	EMERGENCY FIRE PUMP ENGINE	0		AMOUNT OF DIESEL BURNED SHALL NOT EXCEED 1,128 GALLONS PER 12 MONTH PERIOD	0.0015	%
2/15/2016	WISCONSIN POWER & LIGHT - NEENAH GENERATING STATION	WI-0263	Fire pump (process P05)	1.27	mmBtu/hr	Use diesel fuel with sulfur content < 15 ppm	0	
3/9/2016	OKEECHOBEE CLEAN ENERGY CENTER	FL-0356	One 422-hp emergency fire pump engine	0		Use of ULSD	0.0015	% S IN ULSD
6/17/2016	GREENSVILLE POWER STATION	VA-0325	DIESEL-FIRED WATER PUMP 376 bph (1)	0		Ultra Low Sulfur Diesel/Fuel (15 ppm max)	0.0015	LB/MMBTU
9/23/2016	SOUTH FIELD ENERGY LLC	OH-0367	Emergency fire pump engine (P004)	311	HP	Ultra low sulfur diesel fuel	0.004	LB/H
1/4/2017	INDECK NILES, LLC	MI-0423	EUFPENGINE (Emergency engine--diesel fire pump)	1.66	MMBTU/H	Good combustion practices and meeting NSPS Subpart IIII requirements.	15	PPM
9/7/2017	TRUMBULL ENERGY CENTER	OH-0370	Emergency fire pump engine (P004)	300	HP	Ultra low sulfur diesel fuel	3.2	X10-3 LB/H
9/27/2017	OREGON ENERGY CENTER	OH-0372	Emergency fire pump engine (P004)	300	HP	Ultra low sulfur diesel fuel	3.2	X10-3 LB/H
10/23/2017	GUERNSEY POWER STATION LLC	OH-0374	Emergency Fire Pump (P006)	410	HP	Certified to the meet the emissions standards in Table 4 of 40 CFR Part 60, Subpart IIII. Good combustion practices per the manufacturers operating manual.	0.0015	LB/MMBTU
12/4/2017	DANIA BEACH ENERGY CENTER	FL-0363	Emergency Fire Pump Engine (422 hp)	0		Clean fuel	15	PPM S IN FUEL
2/23/2018	STEEL DYNAMICS, INC. - ENGINEERED BAR PRODUCTS DIVISION	IN-0295	Emergency Diesel Generators	150	hp		0.0015	%
2/23/2018	STEEL DYNAMICS, INC. - ENGINEERED BAR PRODUCTS DIVISION	IN-0295	Emergency Diesel Generators	250	hp		0.0015	%
4/19/2018	HARRISON POWER	OH-0377	Emergency Fire Pump (P004)	320	HP	ultra-low sulfur diesel (ULSD) fuel with a sulfur content of less than 15 ppm (0.0015 percent by weight)	0.0015	LB/MMBTU
4/26/2018	C4GT, LLC	VA-0328	Emergency Fire Water Pump	500	HR/YR	good combustion practices and the use of ultra low sulfur diesel (S15 ULSD) fuel oil with a maximum sulfur content of 15 ppmw.	0	
6/29/2018	MEC NORTH, LLC AND MEC SOUTH LLC	MI-0433	EUFPENGINE (South Plant): Fire pump engine	300	HP	Good combustion practices and meeting NSPS Subpart IIII requirements.	15	PPM
6/29/2018	MEC NORTH, LLC AND MEC SOUTH LLC	MI-0433	EUFPENGINE (North Plant): Fire pump engine	300	HP	Good combustion practices and meeting NSPS Subpart IIII requirements.	15	PPM
7/10/2018	DRIFTWOOD LNG FACILITY	LA-0349	IC Engines (18)	0		Comply with 40 CFR 60 Subpart IIII and Good Combustion Practices	0	
7/27/2018	SHADY HILLS COMBINED CYCLE FACILITY	FL-0367	Emergency Fire Pump Engine (347 HP)	8700	gal/year	Clean fuel	15	PPM S IN FUEL
2/14/2019	NUCOR STEEL ARKANSAS	AR-0171	SN-106 Cold Mill 1 Diesel Fired Emergency Generator	1073	bhp	Good operating practices.	0.0006	LB/MMBTU
6/24/2019	CHICKAHOMINY POWER LLC	VA-0332	Emergency Fire Water Pump	500	HR/YR	: good combustion practices, high efficiency design, and the use of ultra low sulfur diesel (S15 ULSD) fuel oil with a maximum sulfur content of 15 ppmw.	0.0015	LB/MMBTU
11/26/2019	INDECK NILES, LLC	*MI-0445	EUFPENGINE (Emergency engine-diesel fire pump	1.66	MMBTU/H	Good Combustion Practices and meeting NSPS Subpart IIII requirements	15	PPM
2/28/2020	WPL- RIVERSIDE ENERGY CENTER	WI-0302	Diesel-Fired Fire Pump Engine (P04)	290	HP	Only use diesel fuel oil with a sulfur content of no greater than 0.0015% by weight.	0.36	LB/H
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 11-01 - Melt Shop Emergency Generator	260	HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	0	
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 11-02 - Reheat Furnace Emergency Generator	190	HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	0	
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 11-03 - Rolling Mill Emergency Generator	440	HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	0	
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 11-04 - IT Emergency Generator	190	HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	0	
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 11-05 - Radio Tower Emergency Generator	61	HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	0	
8/13/2020	GAS TREATMENT PLANT	AK-0085	Three (3) Firewater Pump Engines and two (2) Emergency Diesel Generators	19.4	gph	Good combustion practices, ULSD, and limit operation to 500 hours per year.	15	PPMW SULFUR IN FUEL
3/17/2021	BIG RIVER STEEL LLC	AR-0168	Emergency Engines	0		Good Operating Practices, limited hours of operation, Compliance with NSPS Subpart IIII	0.0015	% SULFUR FUEL
6/7/2021	SHADY HILLS COMBINED CYCLE FACILITY	FL-0371	Emergency Fire Pump Engine (347 HP)	2.46	MMBtu/hour		15	PPM S IN FUEL
1/31/2022	BIG RIVER STEEL LLC	AR-0173	Emergency Engines	0		Good Operating Practices, limited hours of operation, Compliance with NSPS Subpart IIII	15	PPM SULFUR IN FUEL
1/31/2022	BIG RIVER STEEL LLC	AR-0173	Emergency Water Pumps	0		Good Operating Practices, limited hours of operation, Compliance with NSPS Subpart IIII	15	PPM SULFUR IN FUEL
6/23/2022	MEC NORTH, LLC	MI-0451	EUFPENGINE (North Plant): Fire Pump Engine	300	HP	Good combustion practices and meeting NSPS Subpart IIII requirements.	15	PPM
6/23/2022	MEC SOUTH, LLC	MI-0452	EUFPENGINE (South Plant): Fire pump engine	300	HP	Good Combustion Practices and meeting NSPS Subpart IIII requirements	15	PPM
7/7/2022	LIQUEFACTION PLANT	AK-0088	Auxiliary Air Compressor Engine	14.6	Gal/hr	Good Combustion Practices; ULSD; Limited Operation;	15	PPMW SULFUR IN FUEL
7/29/2022	LINCOLN LAND ENERGY CENTER	IL-0133	Fire Water Pump Engine	320	horsepower	Use of ultra-low sulfur diesel, with a sulfur content < 15 ppm sulfur.	0	
3/30/2023	NUCOR STEEL	IN-0359	Emergency Generator (CC-GEN2)	500	Horsepower	ultra-low sulfur diesel fuel (0.0015%S)	0	
4/28/2023	HYBAR LLC	AR-0180	Emergency Water Pumps	0		Good Operating Practices, limited hours of operation, Compliance with NSPS Subpart IIII	15	PPM MAX FUEL CONTENT

RBLC Entries for Volatile Organic Compounds Control from Firewater Pumps

Date	Facility Name	RBLC ID	PROCESS NAME	THROUGHPUT	THROUGHPUT UNIT	Control Method	Limit No. 1	Unit
1/6/2015	KENAI NITROGEN OPERATIONS	AK-0083	Diesel Fired Well Pump	2.7	MMBTU/H	Limited Operation of 168 hr/yr.	0.36	LB/MMBTU
1/8/2015	MIDWEST CITY AIR DEPOT	OK-0164	Diesel-Fueled Fire Pump Engines	300	HP	1. Good Combustion Practices.	0.15	GRAMS PER HP-HR
1/23/2015	POINT THOMSON PRODUCTION FACILITY	AK-0082	Airstrip Generator Engine	490	hp		0.0025	LB/HP-H
1/23/2015	POINT THOMSON PRODUCTION FACILITY	AK-0082	Agitator Generator Engine	98	hp		0.0025	LB/HP-H
1/23/2015	POINT THOMSON PRODUCTION FACILITY	AK-0082	Incinerator Generator Engine	102	hp		0.0025	LB/HP-H
6/4/2015	BENTELER STEEL TUBE FACILITY	LA-0309	Firewater Pump Engines	288	hp (each)	Complying with 40 CFR 60 Subpart IIII	0	
8/25/2015	CLEAN ENERGY FUTURE - LORDSTOWN, LLC	OH-0366	Emergency fire pump engine (P004)	140	HP	State-of-the-art combustion design	0.11	LB/H
12/8/2015	GRAIN PROCESSING CORPORATION	IN-0234	EMERGENCY FIRE PUMP ENGINE	0		GOOD COMBUSTION PRACTICES	0.05	G/HP-H
12/23/2015	LACKAWANNA ENERGY CTR/JESSUP	PA-0309	Fire pump engine	15	gal/hr		0.12	GM/HP-HR
2/3/2016	CRICKET VALLEY ENERGY CENTER	NY-0103	Emergency fire pump	460	hp	Compliance demonstrated with vendor emission certification and adherence to vendor-specified maintenance recommendations.	0.1	G/BHP-H
2/15/2016	WISCONSIN POWER & LIGHT - NEENAH GENERATING STATION	WI-0263	Fire pump (process P05)	1.27	mmBtu/hr	Good combustion practices, use diesel fuel, and operate <500 hr/yr	0	
3/10/2016	PSEG FOSSIL LLC SEWAREN GENERATING STATION	NJ-0084	Emergency Diesel Fire Pump	100	H/YR	use of ULSD a clean burning fuel, and limited hours of operation	0.1	LB/H
3/31/2016	MID-KANSAS ELECTRIC COMPANY, LLC - RUBART STATION	KS-0030	Compression ignition RICE emergency fire pump	197	HP		1.14	G/HP-HR
6/8/2016	BEAUMONT TERMINAL	TX-0799	EMERGENCY ENGINES	0		Equipment specifications and good combustion practices. Operation limited to 100 hours per year.	0.0025	LB/HP-HR
6/17/2016	GREENSVILLE POWER STATION	VA-0325	DIESEL-FIRED WATER PUMP 376 bph (1)	0		Good Combustion Practices/Maintenance	3	G/HP-H
7/19/2016	MIDDLESEX ENERGY CENTER, LLC	NJ-0085	EMERGENCY GENERATOR DIESEL	0	100 H/YR	Use of Ultra Low Sulfur Diesel (ULSD) Oil a clean burning fuel and limited hours of operation	0.557	LB/H
7/19/2016	MIDDLESEX ENERGY CENTER, LLC	NJ-0085	EMERGENCY DIESEL FIRE PUMP	100	H/YR	Use of Ultra Low Sulfur Diesel (ULSD) Oil a clean burning fuel and limited hours of operation	0.117	LB/H
8/3/2016	INDORAMA LAKE CHARLES FACILITY	LA-0314	Diesel Firewater pump engines (6 units)	425	hp	complying with 40 CFR 63 subpart ZZZZ	0	
8/3/2016	INDORAMA LAKE CHARLES FACILITY	LA-0314	Diesel emergency generator engine - EGEN	350	hp	complying with 40 CFR 63 subpart ZZZZ	0	
8/31/2016	ST. CHARLES POWER STATION	LA-0313	SCPS Emergency Diesel Firewater Pump 1	282	HP	Good combustion practices	1.87	LB/H
9/23/2016	SOUTH FIELD ENERGY LLC	OH-0367	Emergency fire pump engine (P004)	311	HP	State-of-the-art combustion design	0.25	LB/H
12/5/2016	HOLLAND BOARD OF PUBLIC WORKS - EAST 5TH STREET	MI-0424	EUFPENGINE (Emergency engine--diesel fire pump)	500	H/YR	Good combustion practices	0.47	LB/H
1/4/2017	INDECK NILES, LLC	MI-0423	EUFPENGINE (Emergency engine--diesel fire pump)	1.66	MMBTU/H	Good combustion practices	0.64	LB/H
2/17/2017	CAMERON LNG FACILITY	LA-0316	firewater pump engines (8 units)	460	hp	Complying with 40 CFR 60 Subpart IIII	0	
4/19/2017	PALLAS NITROGEN LLC	OH-0368	Emergency Fire Pump Diesel Engine (P008)	460	HP	good combustion control and operating practices and engines designed to meet the stands of 40 CFR Part 60, Subpart IIII	0.14	LB/H
6/29/2017	WILDHORSE TERMINAL	OK-0175	Emergency Use Engine less than or equal to 500 HP	0		Good combustion practices, certified to meet EPA Tier 3 engine standards. Gen-1, FP-1, and FP-2 shall be limited to operate no more than 500 hr/yr.	3	GM/HP-HR
7/19/2017	BPV GATHERING AND MARKETING CUSHING STATION	OK-0176	Emergency Generator	400	HP	Equipped with non-resettable hour meter. Fired with ultra-low sulfur diesel fuel (0.015 % or less by wt. sulfur.	217.24	TONS/YEAR/FACILITY
9/7/2017	TRUMBULL ENERGY CENTER	OH-0370	Emergency fire pump engine (P004)	300	HP	State-of-the-art combustion design	0.24	LB/H
9/27/2017	OREGON ENERGY CENTER	OH-0372	Emergency fire pump engine (P004)	300	HP	State-of-the-art combustion design	0.24	LB/H
10/2/2017	CORPORATE/COMPANY NAMEENBRIDGE ENERGY LIMITED PARTNERSHIP -	WI-0279	EG8 " Diesel Emergency Generator	0		Complying with NSPS Standards under 40 CFR Part 60 Subpart IIII	0	
10/23/2017	GUERNSEY POWER STATION LLC	OH-0374	Emergency Fire Pump (P006)	410	HP	Certified to the meet the emissions standards in Table 4 of 40 CFR Part 60, Subpart IIII. Good combustion practices per the manufacturers operating manual.	2.7	LB/H
1/4/2018	CUSHING SOUTH TANK FARM	OK-0177	Emergency use engine < or = 500 hp	0		Good combustion practices, certified to meet EPA Tier III engine standards. Limited to operate no more than 500 hr/yr.	1	GM/HP-HR
2/23/2018	STEEL DYNAMICS, INC. - ENGINEERED BAR PRODUCTS DIVISION	IN-0295	Emergency Diesel Generators	150	hp		1.134	G/HP-HR
2/23/2018	STEEL DYNAMICS, INC. - ENGINEERED BAR PRODUCTS DIVISION	IN-0295	Emergency Diesel Generators	250	hp		1.134	G/HP-HR
4/19/2018	HARRISON POWER	OH-0377	Emergency Fire Pump (P004)	320	HP	Good combustion practices (ULSD) and compliance with 40 CFR Part 60, Subpart IIII	2.12	LB/H
4/26/2018	C4GT, LLC	VA-0328	Emergency Fire Water Pump	500	HR/YR	good combustion practices and the use of ultra low sulfur diesel (S15 ULSD) fuel oil with a maximum sulfur content of 15 ppmw.	0	
5/2/2018	PLAQUEMINES PLANT 1	LA-0328	Emergency Diesel Engine Pump P-39A	375	HP	Good combustion practices and NSPS Subpart IIII	4	G/KW-H
5/2/2018	PLAQUEMINES PLANT 1	LA-0328	Emergency Diesel Engine Pump P-39B	300	HP	Good combustion practices and NSPS Subpart IIII	4	G/KW-H
6/29/2018	MEC NORTH, LLC AND MEC SOUTH LLC	MI-0433	EUFPENGINE (South Plant): Fire pump engine	300	HP	Good combustion practices.	0.75	LB/H
6/29/2018	MEC NORTH, LLC AND MEC SOUTH LLC	MI-0433	EUFPENGINE (North Plant): Fire pump engine	300	HP	Good combustion practices	0.75	LB/H
7/10/2018	DRIFTWOOD LNG FACILITY	LA-0349	IC Engines (18)	0		Comply with 40 CFR 60 Subpart IIII and Good Combustion Practices	0	
7/16/2018	BELLE RIVER COMBINED CYCLE POWER PLANT	MI-0435	EUFPENGINE: Fire pump engine	399	BHP	State of the art combustion design.	0.13	LB/H
9/23/2018	MOTOR VEHICLE ASSEMBLY PLANT	TX-0846	FIRE PUMP DIESEL ENGINE	214	kW	Meets EPA Tier 4 requirements	0.19	G/KW
12/21/2018	PTTGCA PETROCHEMICAL COMPLEX	OH-0378	Firewater Pumps (P005 and P006)	402	HP	Certified to the meet the emissions standards in Table 4 of 40 CFR Part 60, Subpart IIII and employ good combustion practices per the manufacturers operating manual	2.64	LB/H
2/14/2019	NUCOR STEEL ARKANSAS	AR-0171	SN-106 Cold Mill 1 Diesel Fired Emergency Generator	1073	bhp	Good operating practices.	1	G/KW-HR
4/1/2019	GREEN BAY PACKAGING INC. "MILL DIVISION	WI-0292	P37 Diesel-Fired Emergency Fire Pump	0		Hours of Operation	200	HOURS
4/26/2019	MACK AVENUE ASSEMBLY PLANT	MI-0443	EUFIREPUMP1	500	h/yr		0.1	G/B-HP-H
4/26/2019	MACK AVENUE ASSEMBLY PLANT	MI-0443	EUFIREPUMP2	500	h/yr		0.1	G/B-HP-H
4/26/2019	MACK AVENUE ASSEMBLY PLANT	MI-0443	EUFIREPUMP3	500	h/yr		0.1	G/B-HP-H
6/24/2019	CHICKAHOMINY POWER LLC	VA-0332	Emergency Fire Water Pump	500	HR/YR	good combustion practices, high efficiency design, and the use of ultra low sulfur diesel (S15 ULSD) fuel oil with a maximum sulfur content of 15 ppmw.	0.11	G/HP-HR
9/9/2019	EQUISTAR CHEMICALS CHANNELVIEW COMPLEX	TX-0864	EMERGENCY DIESEL ENGINE	0		Tier 4 exhaust emission standards specified at 40 CFR § 1039.101(b), 100 HR / YR	0	

RBLC Entries for Volatile Organic Compounds Control from Firewater Pumps

Date	Facility Name	RBLC ID	PROCESS NAME	THROUGHPUT	THROUGHPUT UNIT	Control Method	Limit No. 1	Unit
9/11/2019	WILDHORSE TERMINAL	OK-0181	EMERGENCY USE ENGINES < 500 HP	0		Good Combustion Practices. Certified to meet EPA Tier 3 engine standards. Gen-1 and FP-1 shall be limited to operate not more than 500 hours per year. SP-1 shall be limited to operate not more than 876 hours per year.	3	GM/HP-HR
2/28/2020	WPL- RIVERSIDE ENERGY CENTER	WI-0302	Diesel-Fired Fire Pump Engine (P04)	290	HP	Good combustion practices	0.26	LB/H
3/31/2020	MONT BELVIEU NGL FRACTIONATION UNIT	TX-0886	EMERGENCY DIESEL ENGINE	0		Limited operating hours, good combustion practices meets NSPS IIII Tier 3 engine	0	
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 11-01 - Melt Shop Emergency Generator	260	HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	0	
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 11-02 - Reheat Furnace Emergency Generator	190	HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	0	
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 11-03 - Rolling Mill Emergency Generator	440	HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	0	
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 11-04 - IT Emergency Generator	190	HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	0	
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 11-05 - Radio Tower Emergency Generator	61	HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	0	
8/13/2020	GAS TREATMENT PLANT	AK-0085	Three (3) Firewater Pump Engines and two (2) Emergency Diesel Generators	19.4	gph	Good combustion practices, ULSD, and limit operation to 500 hours per year.	0.19	G/HP-HR
9/1/2020	NEMADJI TRAIL ENERGY CENTER	WI-0300	Emergency Diesel Fire Pump (P06)	282	HP	Operation limited to 500 hours/year and operate and maintain according to the manufacturers recommendations.	1.1	G/HP-H
10/30/2020	MACK AVENUE ASSEMBLY PLANT	*MI-0446	EUFIREPUMP1	500	h/yr		0.1	G/B-HP-H
10/30/2020	MACK AVENUE ASSEMBLY PLANT	*MI-0446	EUFIREPUMP2	500	h/yr		0.1	G/B-HP-H
2/3/2021	HOLDEN WOOD PRODUCTS MILL	LA-0366	Fire Pump, Sawmill Emergency, and Planer Mill Emergency Generator Engines	0		Good Combustion Practices and Compliance with NSPS 40 CFR 60 Subpart IIII	804.6	HP
2/18/2021	SHELL POLYMERS MONACA SITE	*PA-0326	Emergency Generator Parking Garage	0		The use of certified engines, design of engines to include turbocharger and an intercooler/aftercooler, good combustion practices and proper operation and maintenance including certification to applicable federal emission standards	2.37	GRAM
2/18/2021	SHELL POLYMERS MONACA SITE	*PA-0326	Emergency Generator Telecom Hut & Tower	0		The use of certified engines, design of engines to include turbocharger and an intercooler/aftercooler, good combustion practices and proper operation and maintenance including certification to applicable federal emission standards	2.83	G
3/17/2021	BIG RIVER STEEL LLC	AR-0168	Emergency Engines	0		Good Operating Practices, limited hours of operation, Compliance with NSPS Subpart IIII	1.55	G/KW-HR
3/26/2021	KENAI NITROGEN OPERATIONS	AK-0086	Diesel Fired Well Pump	2.7	MMBtu/hr	Good Combustion Practices and Limited Use	0.36	LB/MMBTU
5/4/2021	SHINTECH PLAQUEMINES PLANT 1	LA-0379	PVC Emergency Combustion Equipment 2A and 2B	300	hp	Compliance with 40 CFR 60 Subpart IIII.	0.19	G/KW-HR
1/31/2022	BIG RIVER STEEL LLC	AR-0173	Emergency Engines	0		Good Operating Practices, limited hours of operation, Compliance with NSPS Subpart IIII	0.13	G/BHP-HR
1/31/2022	BIG RIVER STEEL LLC	AR-0173	Emergency Water Pumps	0		Good Operating Practices, limited hours of operation, Compliance with NSPS Subpart IIII	1.12	G/BHP-HR
4/12/2022	TAYLOR SAWMILL	*LA-0387	Firewater Pump Engine (FIR)	274	horsepower	Compliance with 40 CFR 60 Subpart IIII	0.02	TPY
4/29/2022	WESTLAKE ETHYLENE PLANT	LA-0397	Emergency Generators and Fire Water Pumps (EQT0027 - EQT0032, EQT0044, EQT0045)	0		Compliance with applicable requirements of 40 CFR 60 Subpart IIII	0	
5/10/2022	DERIDDER SAWMILL	LA-0390	ENG1 - Emergency Fire Water Pump	500	horsepower	Good combustion practices and maintenance and compliance with applicable 40 CFR 60 Subpart JJJJ limitation for VOC.	1.85	LB/HR
6/3/2022	MAGNOLIA POWER GENERATING STATION UNIT 1	LA-0391	Emergency Diesel Fired Water Pump Engine	355	hp	Compliance with 40 CFR 60 Subpart IIII, good combustion practices, and the use of ultra-low sulfur diesel fuel.	3	G/HP-HR
6/23/2022	MEC NORTH, LLC	MI-0451	EUFPENGINE (North Plant): Fire Pump Engine	300	HP	Good combustion practices.	0.75	LB/H
6/23/2022	MEC SOUTH, LLC	MI-0452	EUFPENGINE (South Plant): Fire pump engine	300	HP	Good Combustion Practices	0.75	LB/H
7/7/2022	LIQUEFACTION PLANT	AK-0088	Auxiliary Air Compressor Engine	14.6	Gal/hr	Good Combustion Practices; Limited Operation; 40 CFR 60 Subpart IIII	0.22	G/HP-HR
9/20/2022	INTEL OHIO SITE	OH-0387	275 hp (205 kW) Diesel-Fired Emergency Fire Pump Engine	275	HP	Certified to meet the standards in Table 4 of 40 CFR Part 60, Subpart IIII and good combustion practices	0.7	LB/H
9/27/2022	GENERAL MOTORS LLC ORION ASSEMBLY	MI-0453	FGEMENGINES	500	h/yr	Hours of Operation Restriction, Good Combustion Practices, Compliance with NSPS	0.19	G/B-HP-H
11/21/2022	NORFOLK CRUSH, LLC	NE-0064	Emergency Fire Water Pump Engine 2	510	hp		0.62	G/HP-HR
3/30/2023	NUCOR STEEL	IN-0359	Emergency Generator (CC-GEN2)	500	Horsepower	certified engine	1.13	G/HP-HR
9/19/2023	NEMADJI TRAIL ENERGY CENTER	*WI-0326	Fire Pump; S06/P06 " Emergency Diesel Fire Pump	282	HP	Good combustion practices: (a) P06 may not operate more than 500 hours per each 12 rolling calendar months. (b) P06 shall be operated and maintained according to the manufacturers recommendations. (c) VOC emission from P06 may not exceed 1.1 g/hp-hr.	1.1	G/HP-HR
12/12/2023	GEISMAR PLANT	*LA-0394	05-22 - AO-5 BDL Area PAD Sump Pump Driver	200	horsepower	Use of good combustion practices and compliance with NSPS Subpart IIII	0.03	LB/HR
12/12/2023	GEISMAR PLANT	*LA-0394	52-22 - PAO Area PAD Sump Pump Driver	200	horsepower	Use of good combustion practices, compliance with NSPS Subpart IIII	0.03	LB/HR
12/13/2023	DESTREHAN OIL PROCESSING FACILITY	*LA-0402	HLK39 - Emergency Diesel Fire Pump Engine (EQT0094)	200	horsepower	Compliance with 40 CFR 60 Subpart IIII	0.14	LB/H
12/20/2023	KOCH METHANOL (KME) FACILITY	*LA-0401	FWP-01 - Firewater Pump Engine No. 1	422	horsepower	Compliance with 40 CFR 60 Subpart IIII	1.47	LB/HR
12/20/2023	KOCH METHANOL (KME) FACILITY	*LA-0401	FWP-02 - Firewater Pump Engine No. 2	422	horsepower	Compliance with 40 CFR 60 Subpart IIII	1.47	LB/HR
12/20/2023	KOCH METHANOL (KME) FACILITY	*LA-0401	FWP-03 - Firewater Pump Engine No. 3	237	horsepower	Compliance with the requirements of 40 CFR 60 Subpart IIII	0.61	LB/HR
12/21/2023	CRONUS CHEMICALS	IL-0134	Firewater Pump Engine	369	hp		4	G/KW-HR
6/27/2024	LANSING BOARD OF WATER AND LIGHT--DELTA ENERGY PARK	MI-0459	EUFIREPUMP	500	bhp	Good combustion practices	4	G/KW-H
12/16/2024	SHINTECH PLAQUEMINE PLANT 4	*LA-0403	4U-11 - Substation Emergency Generator	70	horsepower	Compliance with 40 CFR 60 Subpart IIII	0.14	LB/HR
12/16/2024	SHINTECH PLAQUEMINE PLANT 4	*LA-0403	4M-11C - VCM Emergency Pump A	200	horsepower	Compliance with 40 CFR 60 Subpart IIII	0.33	LB/HR
12/16/2024	SHINTECH PLAQUEMINE PLANT 4	*LA-0403	4M-11D - VCM Emergency Pump B	200	horsepower	Compliance with 40 CFR 60 Subpart IIII	0.33	LB/HR
12/16/2024	SHINTECH PLAQUEMINE PLANT 4	*LA-0403	4M-11E - VCM Emergency Pump C	200	horsepower	Compliance with 40 CFR 60 Subpart IIII	0.33	LB/HR
2/14/2025	DUKE ENERGY INDIANA, INC.- CAYUGA GENERATING STATION	IN-0382	Emergency fire pump	300	hp	good combustion practices	4	G/KW-HR
3/31/2025	SYCAMORE RIVERSIDE ENERGY LLC	IN-0384	emergency fire water pump	282	bhp	Good combustion practices, low sulfur fuel	0.15	G

RBLC Entries for GHG Control from Firewater Pumps

Date	Facility Name	RBLC ID	PROCESS NAME	THROUGHPUT	THROUGHPUT UNIT	Control Method	Limit No. 1	Unit
1/6/2015	KENAI NITROGEN OPERATIONS	AK-0083	Diesel Fired Well Pump	2.7	MMBTU/H	Limited Operation of 168 hr/yr.	37.2	TONS/YEAR
1/8/2015	MIDWEST CITY AIR DEPOT	OK-0164	Diesel-Fueled Fire Pump Engines	300	HP	1. Good Combustion Practices. 2. Efficient Design.	44	TONS PER YEAR
1/23/2015	POINT THOMSON PRODUCTION FACILITY	AK-0082	Airstrip Generator Engine	490	hp		163	TONS/YEAR
1/23/2015	POINT THOMSON PRODUCTION FACILITY	AK-0082	Agitator Generator Engine	98	hp		356	TONS/YEAR
1/23/2015	POINT THOMSON PRODUCTION FACILITY	AK-0082	Incinerator Generator Engine	102	hp		516	TONS/YEAR
6/4/2015	BENTELER STEEL TUBE FACILITY	LA-0309	Firewater Pump Engines	288	hp (each)		0	
7/14/2015	THE EMPIRE DISTRICT ELECTRIC COMPANY	KS-0029	Emergency diesel engine	750	KW		59.5	TONS PER YEAR
8/25/2015	CLEAN ENERGY FUTURE - LORDSTOWN, LLC	OH-0366	Emergency fire pump engine (P004)	140	HP	Efficient design	41	T/YR
12/23/2015	LACKAWANNA ENERGY CTR/JESSUP	PA-0309	Fire pump engine	15	gal/hr		9	TON
2/3/2016	CRICKET VALLEY ENERGY CENTER	NY-0103	Emergency fire pump	460	hp	Good combustion practice and efficient engine design.	115	TPY
6/8/2016	BEAUMONT TERMINAL	TX-0799	EMERGENCY ENGINES	0		Equipment specifications and good combustion practices. Operation limited to 100 hours per year.	6.79	T/YR
6/17/2016	GREENSVILLE POWER STATION	VA-0325	DIESEL-FIRED WATER PUMP 376 bph (1)	0		Good Combustion Practices/Maintenance	104	T/YR
8/3/2016	INDORAMA LAKE CHARLES FACILITY	LA-0314	Diesel Firewater pump engines (6 units)	425	hp		0	
8/3/2016	INDORAMA LAKE CHARLES FACILITY	LA-0314	Diesel emergency generator engine - EGEN	350	hp		0	
8/31/2016	ST. CHARLES POWER STATION	LA-0313	SCPS Emergency Diesel Firewater Pump 1	282	HP	Good combustion practices	0	
9/23/2016	SOUTH FIELD ENERGY LLC	OH-0367	Emergency fire pump engine (P004)	311	HP	Efficient design	90	T/YR
12/5/2016	HOLLAND BOARD OF PUBLIC WORKS - EAST 5TH STREET	MI-0424	EUFPENGINE (Emergency engine--diesel fire pump)	500	H/YR	Good combustion practices.	55.6	T/YR
12/20/2016	TOPCHEM POLLOCK, LLC	*LA-0306	Generator Engine DEG-16-1 (EQT035)	460	horsepower	Meet NSPS Subpart IIII Limitations and Good Combustion Practices	26	Y/YR
12/20/2016	TOPCHEM POLLOCK, LLC	*LA-0306	Pump Engines DFP-16-1 (EQT036)	225	horsepower	Good Combustion Practices	13	T/YR
12/20/2016	TOPCHEM POLLOCK, LLC	*LA-0306	Pump Engine DFP-16-2 (EQT037)	225	horsepower	Good Combustion Practices	13	T/YR
1/4/2017	INDECK NILES, LLC	MI-0423	EUFPENGINE (Emergency engine--diesel fire pump)	1.66	MMBTU/H	Good combustion practices	13.58	T/YR
1/9/2017	MONSANTO LULING PLANT	LA-0323	Standby Generator No. 9 Engine	400	hp	Proper operation and limits on hours of operation for emergency engines and compliance with 40 CFR 60 Subpart IIII	0	
2/17/2017	CAMERON LNG FACILITY	LA-0316	firewater pump engines (8 units)	460	hp	good combustion practices	0	
4/19/2017	PALLAS NITROGEN LLC	OH-0368	Emergency Fire Pump Diesel Engine (P008)	460	HP	good combustion control and operating practices and engines designed to meet the stands of 40 CFR Part 60, Subpart IIII	123	T/YR
6/30/2017	DONLIN GOLD PROJECT	AK-0084	Fire Pump Diesel Internal Combustion Engines	252	hp	Good Combustion Practices	216	TPY (COMBINED)
6/30/2017	JACKSON COUNTY GENERATING FACILITY	TX-0824	Emergency Diesel-Fired Equipment	160	HP	Good operating and maintenance practices, efficient design, and low annual capacity	13	T/YR
9/7/2017	TRUMBULL ENERGY CENTER	OH-0370	Emergency fire pump engine (P004)	300	HP	Efficient design	87	T/YR
9/27/2017	OREGON ENERGY CENTER	OH-0372	Emergency fire pump engine (P004)	300	HP	State-of-the-art combustion design	87	T/YR
10/23/2017	GUERNSEY POWER STATION LLC	OH-0374	Emergency Fire Pump (P006)	410	HP	good operating practices (proper maintenance and operation)	29	T/YR
2/9/2018	IRONUNITS LLC - TOLEDO HBI	OH-0376	Emergency diesel-fueled fire pump (P006)	250	HP	Equipment design and maintenance requirements	163.6	LB/MMBTU
4/19/2018	HARRISON POWER	OH-0377	Emergency Fire Pump (P004)	320	HP	Efficient design and proper maintenance and operation	18.67	T/YR
4/26/2018	C4GT, LLC	VA-0328	Emergency Fire Water Pump	500	HR/YR	good combustion practices and the use of ultra low sulfur diesel (S15 ULSD) fuel oil with a maximum sulfur content of 15 ppmw.	1040	T/YR
5/2/2018	PLAQUEMINES PLANT 1	LA-0328	Emergency Diesel Engine Pump P-39A	375	HP	Good Combustion Practices	28	T/YR
5/2/2018	PLAQUEMINES PLANT 1	LA-0328	Emergency Diesel Engine Pump P-39B	300	HP	Good Combustion Practices	28	T/YR
6/29/2018	MEC NORTH, LLC AND MEC SOUTH LLC	MI-0433	EUFPENGINE (South Plant): Fire pump engine	300	HP	Good combustion practices.	85.6	T/YR
6/29/2018	MEC NORTH, LLC AND MEC SOUTH LLC	MI-0433	EUFPENGINE (North Plant): Fire pump engine	300	HP	Good combustion practices.	85.6	T/YR
7/16/2018	BELLE RIVER COMBINED CYCLE POWER PLANT	MI-0435	EUFPENGINE: Fire pump engine	399	BHP	Energy efficient design	86	T/YR
7/30/2018	CPV THREE RIVERS ENERGY CENTER	IL-0129	Firewater Pump Engine	0			0	
9/23/2018	MOTOR VEHICLE ASSEMBLY PLANT	TX-0846	FIRE PUMP DIESEL ENGINE	214	kW	Meets EPA Tier 4 requirements . Fuels with a low carbon density, regular equipment maintenance, the use of efficient equipment and operation limited to less than 100 hr/yr	0	
12/21/2018	LBWL--ERICKSON STATION	MI-0441	EUFPRICE--A 315 HP diesel fueled emergency engine	2.5	MMBTU/H	Good combustion practices and energy efficiency measures.	20	T/YR
12/21/2018	PTTGCA PETROCHEMICAL COMPLEX	OH-0378	Firewater Pumps (P005 and P006)	402	HP	good operating practices (proper maintenance and operation)	23	T/YR
12/31/2018	JACKSON ENERGY CENTER	IL-0130	Firewater Pump Engine	420	horsepower		241	TONS/YEAR
2/6/2019	PETMIN USA INCORPORATED	OH-0379	Black Start Generator (P007)	158	HP	Tier IV engine Good combustion practices	181.7	LB/H
2/14/2019	NUCOR STEEL ARKANSAS	AR-0171	SN-106 Cold Mill 1 Diesel Fired Emergency Generator	1073	bhp	Good operating practices.	163	LB/MMBTU
4/1/2019	GREEN BAY PACKAGING INC. "MILL DIVISION	WI-0292	P37 Diesel-Fired Emergency Fire Pump	0		Hours of Operation	200	HOURS
6/13/2019	DIRECT REDUCED IRON FACILITY	LA-0384	IC Engines (EQT0153, EQT0154, EQT0156 - EQT0167)	0		Comply with 40 CFR 60 Subpart IIII	0	
6/24/2019	CHICKAHOMINY POWER LLC	VA-0332	Emergency Fire Water Pump	500	HR/YR	good combustion practices, high efficiency design, and the use of ultra low sulfur diesel (S15 ULSD) fuel oil with a maximum sulfur content of 15 ppmw.	106	T/YR
9/9/2019	EQUISTAR CHEMICALS CHANNELVIEW COMPLEX	TX-0864	EMERGENCY DIESEL ENGINE	0		Tier 4 exhaust emission standards specified at 40 CFR § 1039.101(b)	0	
11/26/2019	INDECK NILES, LLC	*MI-0445	EUFPENGINE (Emergency engine-diesel fire pump	1.66	MMBTU/H	Good combustion practices	13.58	T/YR
12/12/2019	EUEG-5 UNIT - GEISMAR PLANT	*LA-0381	Emergency Engines 2-19 and 3-19 (EQT0904 and EQT0905)	0		Good engine design Good work practices	0	
4/27/2020	WASHINGTON PARISH ENERGY CENTER	*LA-0370	Emergency Fire Pump Engine (EQT0021, ENG-1)	1.1	MM BTU/hr	Good combustion practices in order to comply with 40 CFR 60 Subpart IIII	9	TPY
7/17/2020	PETMIN USA INCORPORATED	OH-0383	Black Start Generator (P007)	158	HP	Tier IV engine Good combustion practices	9.09	T/YR
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 11-01 - Melt Shop Emergency Generator	260	HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	0	
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 11-02 - Reheat Furnace Emergency Generator	190	HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	0	
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 11-03 - Rolling Mill Emergency Generator	440	HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	0	
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 11-04 - IT Emergency Generator	190	HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	0	
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 11-05 - Radio Tower Emergency Generator	61	HP	This EP is required to have a Good Combustion and Operating Practices (GCOP) Plan.	0	

RBLC Entries for GHG Control from Firewater Pumps

Date	Facility Name	RBLC ID	PROCESS NAME	THROUGHPUT	THROUGHPUT UNIT	Control Method	Limit No. 1	Unit
8/8/2020	SWEENY OLD OCEAN FACILITIES	TX-0889	Emergency Generator Engines	0		Good combustion practices and limited hours of operation	0	
8/13/2020	GAS TREATMENT PLANT	AK-0085	Three (3) Firewater Pump Engines and two (2) Emergency Diesel Generators	19.4	gph	Good combustion practices and limit operation to 500 hours per year per engine	163.6	LB/MMBTU
9/1/2020	NEMADJI TRAIL ENERGY CENTER	WI-0300	Emergency Diesel Fire Pump (P06)	282	HP	Be certified by manufacturer to EPA™s criteria for Tier 3 reciprocating internal combustion engines and to the 40 CFR 60, Subpart IIII emission limitations, operation limited to 500 hours/year, and operate and maintain according to the manufacturers recommendations.	0	
1/7/2021	LBWL--ERICKSON STATION	MI-0447	EUFPRICE--A 315 HP diesel fueled emergency engine	2.5	MMBTU/H	Low carbon fuel (pipeline quality natural gas), good combustion practices and energy efficiency measures.	20	T/YR
2/18/2021	SHELL POLYMERS MONACA SITE	*PA-0326	Emergency Generator Parking Garage	0		Good Combustion Practices - no feasible control technologies, 10 tons CO2e Year 12 month rolling basis for Parking Garage and Telecom emergency generators combined	10	TONS
2/18/2021	SHELL POLYMERS MONACA SITE	*PA-0326	Emergency Generator Telecom Hut & Tower	0		Good Combustion Practices - no feasible control technologies, 10 tons CO2e Year 12 month rolling basis for Parking Garage and Telecom emergency generators combined	10	TONS
3/26/2021	KENAI NITROGEN OPERATIONS	AK-0086	Diesel Fired Well Pump	2.7	MMBtu/hr	Good Combustion Practices and Limited Use	164	LB/MMBTU
1/31/2022	BIG RIVER STEEL LLC	AR-0173	Emergency Engines	0		Good Operating Practices	164	LB/MMBTU
1/31/2022	BIG RIVER STEEL LLC	AR-0173	Emergency Water Pumps	0		Good Operating Practices	164	LB/MMBTU
6/3/2022	MAGNOLIA POWER GENERATING STATION UNIT 1	LA-0391	Emergency Diesel Fired Water Pump Engine	355	hp	Compliance with 40 CFR 60 Subpart IIII, good combustion practices, and the use of ultra-low sulfur diesel fuel.	74.21	KG/MM BTU
6/23/2022	MEC NORTH, LLC	MI-0451	EUFPENGINE (North Plant): Fire Pump Engine	300	HP	Good combustion practices	85.6	T/YR
6/23/2022	MEC SOUTH, LLC	MI-0452	EUFPENGINE (South Plant): Fire pump engine	300	HP	Good combustion practices.	85.6	T/YR
7/7/2022	LIQUEFACTION PLANT	AK-0088	Auxiliary Air Compressor Engine	14.6	Gal/hr	Good Combustion Practices; Limited Operation	163.6	LB/MMBTU
7/29/2022	LINCOLN LAND ENERGY CENTER	IL-0133	Fire Water Pump Engine	320	horsepower		92	TONS/YEAR
9/27/2022	GENERAL MOTORS LLC ORION ASSEMBLY	MI-0453	FGEMENGINES	500	h/yr	Hours of Operation Restriction, Good Combustion Practices, Compliance with NSPS	656.2	T/YR
12/20/2022	LBWL-ERICKSON STATION	MI-0454	EUFPRICE--A 315 HP diesel-fueled emergency engine	2.5	MMBTU/H	Low carbon fuel (pipeline quality natural gas), good combustion practices, and energy efficiency measures.	20	T/YR
12/22/2022	IRON UNITS LLC	OH-0388	P010 - 225 Hp Diesel engine for bulk material screen	225	HP	Good combustion practices	1209	T/YR
12/22/2022	IRON UNITS LLC	OH-0388	P012 - 125 Hp Diesel Engine for Screen Bypass Screen	125	HP	Good combustion practices	65	T/YR
12/22/2022	IRON UNITS LLC	OH-0388	P011 and P013 - 100 Hp Diesel Engine	100	HP	Good combustion practices	539	T/YR
3/30/2023	NUCOR STEEL	IN-0359	Emergency Generator (CC-GEN2)	500	Horsepower	Good engineering design and manufacturers recommended operating and maintenance procedures.	163.6	LB/MMBTU
4/28/2023	HYBAR LLC	AR-0180	Emergency Water Pumps	0		Good combustion practices	164	LB/MMBTU
9/19/2023	NEMADJI TRAIL ENERGY CENTER	*WI-0326	Fire Pump; S06/P06 " Emergency Diesel Fire Pump	282	HP	Selection of the most efficient reciprocating internal combustion engine and minimizing the hours of operation limits greenhouse gas emissions. - EPA Tier 3 certified reciprocating internal combustion engine and - limiting its hours of operation to 500 hours per each 12 consecutive calendar months. - Part of ensuring efficient engine operation is properly maintaining the engine and the combustion of clean fuels. In this case, clean fuel is determined to be ultra-low sulfur diesel fuel (less than 15 ppm sulfur content).	500	HOURS
12/12/2023	GEISMAR PLANT	*LA-0394	05-22 - AO-5 BDL Area PAD Sump Pump Driver	200	horsepower	Use of good combustion practices and compliance with NSPS Subpart IIII	0	
12/12/2023	GEISMAR PLANT	*LA-0394	52-22 - PAO Area PAD Sump Pump Driver	200	horsepower	Use of good combustion practices, compliance with NSPS Subpart IIII	0	
12/13/2023	DESTREHAN OIL PROCESSING FACILITY	*LA-0402	HLK39 - Emergency Diesel Fire Pump Engine (EQT0094)	200	horsepower	Good Combustion Practices	12	T/YR
12/21/2023	CRONUS CHEMICALS	IL-0134	Firewater Pump Engine	369	hp		25	TONS/YEAR
6/27/2024	LANSING BOARD OF WATER AND LIGHT--DELTA ENERGY PARK	MI-0459	EUFIREPUMP	500	bhp	Good combustion practices, use of current energy efficiency measures.	27	T/YR
12/16/2024	SHINTECH PLAQUEMINE PLANT 4	*LA-0403	4U-11 - Substation Emergency Generator	70	horsepower	BACT is determined to be the implementation of the following energy efficiency measures: Improved Combustion Measures, Insulation, and Minimization of Air Infiltration	0	
2/14/2025	DUKE ENERGY INDIANA, INC.- CAYUGA GENERATING STATION	IN-0382	Emergency fire pump	300	hp	good combustion practices	0	
3/31/2025	SYCAMORE RIVERSIDE ENERGY LLC	IN-0384	emergency fire water pump	282	bhp		0	

RBLC Entries for PM_{10} Control from Cooling Towers

Date	Facility Name	RBLC ID	PROCESS NAME	THROUGHPUT	THROUGHPUT U	Control Method	Limit No. 1	Unit
9/23/2019	SUN BIO MATERIAL COMPANY	AR-0161	Cooling Towers	0		Drift Eliminators Low TDS	0.0005	% DRIFT LOSS
9/23/2019	SUN BIO MATERIAL COMPANY	AR-0161	Cooling Towers	0		Drift Eliminators Low TDS	0.0005	% DRIFT LOSS
12/4/2017	DANIA BEACH ENERGY CENTER	FL-0363	Mechanical draft cooling system	0		Certified drift rate < 0.0005%	0.0005	% DRIFT RATE
7/27/2018	SHADY HILLS COMBINED CYCLE FACILITY	FL-0367	Mechanical Draft Auxiliary Cooling System	0		Certified drift rate < 0.0005%	0.0005	% DRIFT RATE
6/7/2021	SHADY HILLS COMBINED CYCLE FACILITY	FL-0371	Mechanical Draft Auxiliary Cooling System	0		Certified drift rate < 0.0005%	0.0005	% DRIFT RATE
12/21/2023	CRONUS CHEMICALS	IL-0134	Cooling Tower	145310	gallons/minute	High efficiency drift eliminators	0.0005	PERCENT
6/11/2019	RIVERVIEW ENERGY CORPORATION	IN-0317	Cooling tower EU-6001	32000	GAL/HR	drift eliminator	2395	MG/L
7/14/2015	THE EMPIRE DISTRICT ELECTRIC COMPANY	KS-0029	Mechanical draft cooling tower	0		high efficiency drift eliminators (integral part of the design)	0.0005	% DRIFT RATE
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 09-01 - Melt Shop ICW Cooling Tower	52000	gal/min	High Efficiency Mist Eliminator. The mist eliminator drift loss shall be maintained at 0.001% or less to total gpm.	0.36	LB/HR
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 09-01 - Melt Shop ICW Cooling Tower	52000	gal/min	High Efficiency Mist Eliminator. The mist eliminator drift loss shall be maintained at 0.001% or less to total gpm.	0.27	LB/HR
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 09-02 - Melt Shop DCW Cooling Tower	5900	gal/min	High Efficiency Mist Eliminator. The mist eliminator drift loss shall be maintained at 0.001% or less to total gpm.	0.04	LB/HR
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 09-02 - Melt Shop DCW Cooling Tower	5900	gal/min	High Efficiency Mist Eliminator. The mist eliminator drift loss shall be maintained at 0.001% or less to total gpm.	0.03	LB/HR
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 09-03 - Rolling Mill ICW Cooling Tower	8500	gal/min	High Efficiency Mist Eliminator. The mist eliminator drift loss shall be maintained at 0.001% or less to total gpm.	0.06	LB/HR
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 09-03 - Rolling Mill ICW Cooling Tower	8500	gal/min	High Efficiency Mist Eliminator. The mist eliminator drift loss shall be maintained at 0.001% or less to total gpm.	0.04	LB/HR
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 09-04 - Rolling Mill DCW Cooling Tower	22750	gal/min	High Efficiency Mist Eliminator. The mist eliminator drift loss shall be maintained at 0.001% or less to total gpm.	0.17	LB/HR
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 09-04 - Rolling Mill DCW Cooling Tower	22750	gal/min	High Efficiency Mist Eliminator. The mist eliminator drift loss shall be maintained at 0.001% or less to total gpm.	0.12	LB/HR
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 09-05 - Rolling Mill Quench/ACC Cooling Tower	90000	gal/min	High Efficiency Mist Eliminator. The mist eliminator drift loss shall be maintained at 0.001% or less to total gpm.	0.78	LB/HR
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 09-05 - Rolling Mill Quench/ACC Cooling Tower	90000	gal/min	High Efficiency Mist Eliminator. The mist eliminator drift loss shall be maintained at 0.001% or less to total gpm.	0.54	LB/HR
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 09-06 - Light Plate Quench DCW Cooling Tower	8000	gal/min	High Efficiency Mist Eliminator. The mist eliminator drift loss shall be maintained at 0.001% or less to total gpm.	0.06	LB/HR
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 09-06 - Light Plate Quench DCW Cooling Tower	8000	gal/min	High Efficiency Mist Eliminator. The mist eliminator drift loss shall be maintained at 0.001% or less to total gpm.	0.04	LB/HR
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 09-07 - Heavy Plate Quench DCW Cooling Tower	3000	gal/min	High Efficiency Mist Eliminator. The mist eliminator drift loss shall be maintained at 0.001% or less to total gpm.	0.02	LB/HR
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 09-07 - Heavy Plate Quench DCW Cooling Tower	3000	gal/min	High Efficiency Mist Eliminator. The mist eliminator drift loss shall be maintained at 0.001% or less to total gpm.	0.02	LB/HR
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 09-08 - Air Separation Plant Cooling Tower	14000	gal/min	High Efficiency Mist Eliminator. The mist eliminator drift loss shall be maintained at 0.001% or less to total gpm.	0.1	LB/HR
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 09-08 - Air Separation Plant Cooling Tower	14000	gal/min	High Efficiency Mist Eliminator. The mist eliminator drift loss shall be maintained at 0.001% or less to total gpm.	0.08	LB/HR
4/19/2021	NUCOR STEEL GALLATIN, LLC	KY-0115	Laminar Cooling Tower - Hot Mill Cells (EP 03-09)	35000	gal/min	Mist Eliminator, 0.001% drift loss	0.27	LB/HR
4/19/2021	NUCOR STEEL GALLATIN, LLC	KY-0115	Laminar Cooling Tower - Hot Mill Cells (EP 03-09)	35000	gal/min	Mist Eliminator, 0.001% drift loss	0.19	LB/HR
4/19/2021	NUCOR STEEL GALLATIN, LLC	KY-0115	Direct Cooling Tower-Caster; Roughing Mill Cells (EP 03-10)	26300	gal/min	Mist Eliminator, 0.001% drift loss	0.17	LB/HR
4/19/2021	NUCOR STEEL GALLATIN, LLC	KY-0115	Direct Cooling Tower-Caster; Roughing Mill Cells (EP 03-10)	26300	gal/min	Mist Eliminator, 0.001% drift loss	0.12	LB/HR
4/19/2021	NUCOR STEEL GALLATIN, LLC	KY-0115	Melt Shop #2 Cooling Tower (indirect) (EP 03-11)	59500	gal/min	Mist Eliminator, 0.001% drift loss	0.39	LB/HR
4/19/2021	NUCOR STEEL GALLATIN, LLC	KY-0115	Melt Shop #2 Cooling Tower (indirect) (EP 03-11)	59500	gal/min	Mist Eliminator, 0.001% drift loss	0.29	LB/HR
4/19/2021	NUCOR STEEL GALLATIN, LLC	KY-0115	Cold Mill Cooling Tower (EP 03-12)	20000	gal/min	Mist Eliminator, 0.001% drift loss	0.14	LB/HR
4/19/2021	NUCOR STEEL GALLATIN, LLC	KY-0115	Cold Mill Cooling Tower (EP 03-12)	20000	gal/min	Mist Eliminator, 0.001% drift loss	0.094	LB/HR
4/19/2021	NUCOR STEEL GALLATIN, LLC	KY-0115	Air Separation Plant Cooling Tower (EP 03-13)	15000	gal/min	Mist Eliminator, 0.001% drift loss	0.08	LB/HR
4/19/2021	NUCOR STEEL GALLATIN, LLC	KY-0115	Air Separation Plant Cooling Tower (EP 03-13)	15000	gal/min	Mist Eliminator, 0.001% drift loss	0.07	LB/HR
4/19/2021	NUCOR STEEL GALLATIN, LLC	KY-0115	DCW Auxiliary Cooling Tower (EP 03-14)	9250	gal/min	Mist Eliminator, 0.001% drift loss	0.06	LB/HR
4/19/2021	NUCOR STEEL GALLATIN, LLC	KY-0115	DCW Auxiliary Cooling Tower (EP 03-14)	9250	gal/min	Mist Eliminator, 0.001% drift loss	0.05	LB/HR
7/25/2022	NOVELIS CORPORATION - GUTHRIE	KY-0116	EU 043 - Cooling Tower #1	0.15	MMgal/hr	Mist Eliminator (0.001% drift loss), Total Dissolved Solids (TDS) concentration limit of 1000 ppm	0.013	LB/HR
7/25/2022	NOVELIS CORPORATION - GUTHRIE	KY-0116	EU 043 - Cooling Tower #1	0.15	MMgal/hr	Mist Eliminator (0.001% drift loss), Total Dissolved Solids (TDS) concentration limit of 1000 ppm	0.006	LB/HR
6/30/2016	LAKE CHARLES METHANOL FACILITY	LA-0305	Cooling Towers	0		Drift eliminators	0.0005	%
6/4/2015	BENTELER STEEL TUBE FACILITY	LA-0309	Cooling Towers	0		drift eliminators	0.0005	% DRIFT RATE
6/30/2017	ST. JAMES METHANOL PLANT	*LA-0312	ECT-14 - Econamine Cooling Tower (EQT0018)	29120	gallons/min	High efficiency drift eliminators	0.44	TPY
6/30/2017	ST. JAMES METHANOL PLANT	*LA-0312	CT-13 - Cooling Tower (EQT0007)	231000	gallons/min	High efficiency drift eliminators	0.96	LB/HR
8/31/2016	ST. CHARLES POWER STATION	LA-0313	SCPS Cooling Tower 1	164400	gpm	High efficiency drift eliminators	1.24	LB/H
8/3/2016	INDORAMA LAKE CHARLES FACILITY	LA-0314	cooling towers - 007	86500	gpm	drift eliminators	0.0005	%
12/22/2016	METHANEX - GEISMAR METHANOL PLANT	LA-0317	cooling towers (I-CT-621, II-CT-621)	66000	gpm (each)	Drift eliminators	0.001	%
1/7/2016	FLOPAM FACILITY	LA-0318	cooling towers	0		integrated drift eliminators	0	
1/9/2017	MONSANTO LULING PLANT	LA-0323	Cooling Water Tower	18000	gal/m	Drift Eliminators with Draft Factor of 0.003%	0.003	%
6/3/2022	MAGNOLIA POWER GENERATING STATION UNIT 1	LA-0391	Cooling Tower	8400	gal/m	High-efficiency drift eliminators.	0.0005	%
12/12/2023	GEISMAR PLANT	*LA-0394	04-22 - AO-5 Cooling Water Tower, W-S5401	47410	gallons/min	Implementation of a heat exchange leak detection and repair program consistent with 40 CFR 63 Subpart F requirements	0.18	LB/HR

RBLC Entries for PM_{10} Control from Cooling Towers

Date	Facility Name	RBLC ID	PROCESS NAME	THROUGHPUT	THROUGHPUT U	Control Method	Limit No. 1	Unit
12/20/2023	KOCH METHANOL (KME) FACILITY	*LA-0401	CWT - Cooling Water Tower	200000	gallons/min	Use of High efficiency drift eliminators	0	
12/13/2023	DESTREHAN OIL PROCESSING FACILITY	*LA-0402	HLK40 - Cooling Towers (EQT0095)	125856	gallons/min	Drift elimination system	0.06	LB/H
12/16/2024	SHINTECH PLAQUEMINE PLANT 4	*LA-0403	4C-4 - C/A Cooling Tower	64600	gallons/min	High efficiency drift eliminators	0.23	LB/HR
12/16/2024	SHINTECH PLAQUEMINE PLANT 4	*LA-0403	4M-7 - VCM Cooling Tower 1	122269	gallons/min	Drift Eliminators	0.36	LB/HR
12/16/2024	SHINTECH PLAQUEMINE PLANT 4	*LA-0403	4M-18 - VCM Cooling Tower 2	28620	gallons/min	Drift eliminators	0.08	LB/HR
12/5/2016	HOLLAND BOARD OF PUBLIC WORKS - EAST 5TH STREET	MI-0424	EUCOOLTWR (Cooling Tower--Wet Mechanical Draft)	0		Mist/drift eliminators	2.37	T/YR
11/17/2017	FILER CITY STATION	MI-0427	EUCOOLTWR (Cooling Tower--Wet Mechanical Drift)	0		Mist/Drift Eliminators	0.0006	%
11/17/2017	FILER CITY STATION	MI-0427	EUCOOLTWR (Cooling Tower--Wet Mechanical Drift)	0		Mist/Drift Eliminators	0.0006	%
6/29/2018	MEC NORTH, LLC AND MEC SOUTH LLC	MI-0433	EUCOOLTOWER (North Plant): Cooling Tower	170000	GAL/M	High efficiency drift/mist eliminators	5.59	T/YR
6/29/2018	MEC NORTH, LLC AND MEC SOUTH LLC	MI-0433	EUCOOLTOWER (North Plant): Cooling Tower	170000	GAL/M	High efficiency drift/mist eliminators	2.85	T/YR
6/29/2018	MEC NORTH, LLC AND MEC SOUTH LLC	MI-0433	EUCOOLTOWER (South Plant): Cooling Tower	170000	GAL/M	High efficiency drift/mist eliminators.	5.59	T/YR
6/29/2018	MEC NORTH, LLC AND MEC SOUTH LLC	MI-0433	EUCOOLTOWER (South Plant): Cooling Tower	170000	GAL/M	High efficiency drift/mist eliminators.	2.85	T/YR
7/16/2018	BELLE RIVER COMBINED CYCLE POWER PLANT	MI-0435	EUCOOLINGTWR: Cooling Tower	0		High efficiency drift/mist eliminators	4.03	LB/H
7/16/2018	BELLE RIVER COMBINED CYCLE POWER PLANT	MI-0435	EUCOOLINGTWR: Cooling Tower	0		High efficiency drift/mist eliminators	0.48	LB/H
8/21/2019	THOMAS TOWNSHIP ENERGY, LLC	MI-0442	FGCOOLTWR	92500	GAL/M	Particulate in water droplets will be controlled with high efficiency drift/mist eliminators	2.6	T/YR
5/20/2015	OREGON ENERGY CENTER	OH-0364	Cooling Towers #1; #2 (P009; P010)	115037	GAL/M	advanced drift eliminators with a drift rate of less than 0.0005 percent and maintain the total dissolved solids (TDS) content of the circulating cooling water at 5,130 mg/L or less as a 24-hour rolling average	1.48	LB/H
8/25/2015	CLEAN ENERGY FUTURE - LORDSTOWN, LLC	OH-0366	Wet Cooling Tower (P005)	165470	GAL/M	Drift eliminator with a maximum drift rate of 0.0005% and total dissolved solids (TDS) concentration of the cooling water less than or equal to 3,075 milligrams per liter.	1.27	LB/H
9/23/2016	SOUTH FIELD ENERGY LLC	OH-0367	Cooling Towers (2 identical, P005 and P006)	118441	GAL/M	High efficiency drift eliminators and minimize total dissolved solid (TDS)	1.33	LB/H
4/19/2017	PALLAS NITROGEN LLC	OH-0368	Cooling Towers #1; #2 (P010; P011)	79800	GAL/M	drift eliminators with a maximum drift rate specification of 0.0005 percent or less and total dissolved solids (TDS) concentration of the cooling water less than or equal to 5,000 milligrams per liter (mg/l)	0.3	LB/H
4/19/2017	PALLAS NITROGEN LLC	OH-0368	Wastewater Treatment Plant Cooling Water Tower (P012)	1000	GAL/M	drift eliminators with a maximum drift rate specification of 0.0005 percent or less and total dissolved solids (TDS) concentration of the cooling water less than or equal to 50,000 milligrams per liter (mg/l)	5	X10-4 LB/H
9/7/2017	TRUMBULL ENERGY CENTER	OH-0370	Wet Cooling Tower (P005)	155083	GAL/M	drift eliminator with a maximum drift rate of 0.0005% and total dissolved solids (TDS) concentration of the cooling water less than or equal to 3,500 milligrams per liter (mg/l).	1.36	LB/H
9/27/2017	OREGON ENERGY CENTER	OH-0372	Wet Cooling Tower (P005)	155083	GAL/M	drift eliminator with a maximum drift rate of 0.0005% and total dissolved solids (TDS) concentration of the cooling water less than or equal to 3,500 milligrams per liter (mg/l).	0.93	LB/H
11/7/2017	LONG RIDGE ENERGY GENERATION LLC - HANNIBAL POWER	OH-0375	Wet Mechanical Draft Cooling Tower (P003)	120000	GAL/M	High efficiency drift eliminator designed to achieve a 0.0005% drift rate and total dissolved solids (TDS) content not to exceed 5,000 mg/l.	4.24	T/YR
2/9/2018	IRONUNITS LLC - TOLEDO HBI	OH-0376	Wet Cooling Tower (P005)	24766	GAL/M	drift eliminator with a maximum drift rate of 0.0005% and total dissolved solids (TDS) concentration of the cooling water less than or equal to 1,100 parts per million by weight (ppmw).	0.02	LB/H
12/21/2018	PTTGCA PETROCHEMICAL COMPLEX	OH-0378	Cooling Tower (P011)	13.88	MMGAL/H	High efficiency drift eliminator designed to achieve a 0.0005% drift rate and maintenance of a total dissolved solids (TDS) content not to exceed 2,000 ppm in the circulating cooling water based on a rolling 12-month average.	3.22	T/YR
9/27/2019	NORTHSTAR BLUESCOPE STEEL, LLC	OH-0381	Contact Cooling Towers - Melt Shop 2 (P027)	2.7	MMGAL/H	i. Use of drift eliminator(s) designed to achieve a 0.001% drift rate; ii. Maintenance of a total dissolved solids (TDS) content (for the 5 individual cooling towers) not to exceed the ppm in the circulating cooling water based on a rolling 12-month average as indicated in the table below: Cooling Tower - TDS (ppm) Meltshop 2 Cooling Tower - 1000 Caster Mold Water Cooling Tower - 800 Tunnel Furnace Cooling Tower - 800 Caster Non-Contact 2 Cooling Tower - 800 Caster Contact 2 Cooling Tower - 1400	1.17	T/YR
9/27/2019	NORTHSTAR BLUESCOPE STEEL, LLC	OH-0381	Contact Cooling Towers - Melt Shop 2 (P027)	2.7	MMGAL/H	i. Use of drift eliminator(s) designed to achieve a 0.001% drift rate; ii. Maintenance of a total dissolved solids (TDS) content (for the 5 individual cooling towers) not to exceed the ppm in the circulating cooling water based on a rolling 12-month average as indicated in the table below: Cooling Tower - TDS (ppm) Meltshop 2 Cooling Tower - 1000 Caster Mold Water Cooling Tower - 800 Tunnel Furnace Cooling Tower - 800 Caster Non-Contact 2 Cooling Tower - 800 Caster Contact 2 Cooling Tower - 1400	0.93	T/YR
9/27/2019	NORTHSTAR BLUESCOPE STEEL, LLC	OH-0381	Contact Cooling Towers (P014)	6.41	MMGAL/H	i. Use of drift eliminator(s) designed to achieve a 0.003% drift rate; ii. Maintenance of a total dissolved solids (TDS) content (for the 5 individual cooling towers) not to exceed the ppm in the circulating cooling water based on a rolling 12-month average as indicated in the table below: Cooling Tower - TDS (ppm) Meltshop Cooling Tower (501) - 800 Caster Non-Contact Cooling Tower (6 Cell) - 800 Caster Contact Cooling Tower (503) - 1100 Mill Contact Cooling Tower (505) - 2000 Laminar Flow Cooling Tower (506) - 1400	8.7	T/YR

RBLC Entries for PM_{10} Control from Cooling Towers

Date	Facility Name	RBLC ID	PROCESS NAME	THROUGHPUT	THROUGHPUT U	Control Method	Limit No. 1	Unit
9/27/2019	NORTHSTAR BLUESCOPE STEEL, LLC	OH-0381	Contact Cooling Towers (P014)	6.41	MMGAL/H	i.Use of drift eliminator(s) designed to achieve a 0.003% drift rate; ii.Maintenance of a total dissolved solids (TDS) content (for the 5 individual cooling towers) not to exceed the ppm in the circulating cooling water based on a rolling 12-month average as indicated in the table below: Cooling Tower - TDS (ppm) Meltshop Cooling Tower (501) - 800 Caster Non-Contact Cooling Tower (6 Cell) - 800 Caster Contact Cooling Tower (503) - 1100 Mill Contact Cooling Tower (505) - 2000 Laminar Flow Cooling Tower (506) - 1400	6.95	T/YR
9/20/2022	INTEL OHIO SITE	OH-0387	Cooling Towers: P054 through P178	0		Drift eliminator	0.0005	%
10/27/2023	VALENCIA PROJECT LLC	OH-0391	Cooling Towers (P023, P024, P025)	0		A drift eliminator achieving â€œdrift lossâ€equal to or less than 0.0005 percent	0.04	LB/H
10/31/2023	SCOUT MOTORS INC A DELAWARE CORPORATION - BLYTHEWOOD PLANT	SC-0205	Cooling Towers	0		Drift Eliminator	0.001	% DRIFT RATE
10/31/2023	SCOUT MOTORS INC A DELAWARE CORPORATION - BLYTHEWOOD PLANT	SC-0205	Cooling Towers	0		Drift Eliminator	0.001	% DRIFT RATE
4/1/2015	PEONY CHEMICAL MANUFACTURING FACILITY	TX-0728	Cooling tower	40000	gallons per minute	drift eliminator is 0.0005% efficient	0.31	LB/H
11/12/2015	BISHOP FACILITY	TX-0774	Cooling Tower	10400		Drift eliminators meeting 0.001% drift	3.07	TPY
7/12/2016	PL PROPYLENE HOUSTON OLEFINS PLANT	TX-0803	Cooling Tower	0		drift eliminators	0.001	% DRIFT
1/17/2017	PORT ARTHUR ETHANE SIDE CRACKER	TX-0815	Cooling Tower	0		Drift Eliminators	0	
1/9/2018	EXXONMOBIL BEAUMONT REFINERY	TX-0832	COOLING TOWERS	0		DRAFT ELIMINATORS	0	
3/30/2018	MONTGOMERY COUNTY POWER STATIOIN	TX-0834	COOLING TOWER	9864000	GAL/H	DRIFT ELIMINATORS	0	
9/3/2019	POLYETHYLENE 7 FACILITY	TX-0863	COOLING TOWER	0		DRIFT ELIMINATOR	0	
9/9/2019	EQUISTAR CHEMICALS CHANNELVIEW COMPLEX	TX-0864	Cooling Tower	0		DRIFT ELIMINATORS	0.005	% DRIFT
9/9/2019	EQUISTAR CHEMICALS CHANNELVIEW COMPLEX	TX-0865	COOLING TOWER	0		DRIFT ELIMINATORS	6000	PPMW
2/4/2020	PORT ARTHUR REFINERY	TX-0873	COOLING TOWER	35000	GPM	DRIFT ELIMINATORS	0	
2/6/2020	PORT ARTHUR ETHANE CRACKER UNIT	TX-0876	COOLING TOWER	0		DRIFT ELIMINATORS	1200	PPM
2/6/2020	PORT ARTHUR ETHANE CRACKER UNIT	TX-0876	COOLING TOWER	0		DRAFT ELIMINATORS	1200	PPM
4/23/2020	ORANGE POLYETHYLENE PLANT	TX-0888	COOLING TOWERS	0		DRIFT ELIMINATORS	0	
9/9/2020	MOTIVA POLYETHYLENE MANUFACTURING COMPLEX	TX-0904	COOLING TOWER	0		Non-contact design and DRIFT ELIMINATORS	1200	PPMW
9/16/2020	DIAMOND GREEN DIESEL PORT ARTHUR FACILITY	TX-0905	COOLING TOWER	0		DRIFT ELIMINATORS 0.001%	0	
3/17/2021	UNIT 5	TX-0915	COOLING TOWER	0		Drift eliminators 0.0005%	60000	PPM
6/13/2022	HOUSTON PLANT - 46307	TX-0922	COOLING TOWER	0		Drift eliminators with 0.0005% drift	0	
10/19/2021	CENTURION BROWNSVILLE	TX-0930	Cooling Tower	0		Drift eliminators required. Maximum drift 0.0005 percent. TDS limit of 3,500 ppmw in the cooling water. Daily sampling for TDS required, or weekly TDS sampling is allowed if conductivity is monitored daily and a TDS to conductivity ratio is established.	0	
12/16/2021	ROEHM AMERICA BAY CITY SITE	TX-0931	Cooling Tower	0		Drift eliminators with 0.001% drift	0	
5/3/2024	VALERO CORPUS CHRISTI REFINERY WEST PLANT	TX-0938	COOLING TOWER	0		Drift eliminators 0.001% drift	0	
3/13/2023	ORANGE COUNTY ADVANCED POWER STATION	TX-0939	COOLING TOWER	13734000	GAL/HR	0.001% DRIFT ELIMINATORS	0	
9/6/2022	FIBERGLASS MANUFACTURING FACILITY	TX-0940	COOLING TOWER	2175	GAL/MIN	DRIFT ELIMINATOR	0.001	%
10/5/2023	NEDERLAND FACILITY	TX-0964	COOLING TOWERS	0		Drift eliminators with 0.001% drift	2000	PPMW
10/5/2023	NEDERLAND FACILITY	TX-0964	COOLING TOWERS	0		Drift eliminators with 0.001% drift	2000	PPMW
2/5/2024	QUAIL RUN CARBON CAPTURE PLANT	TX-0967	COOLING TOWERS	142700	gal/min	drift eliminators 0.0005%	0	
4/26/2018	C4GT, LLC	VA-0328	Cooling Tower	0		Drift rate of 0.00050 percent of the circulating water flow with mist eliminators and a total dissolved solids content of the cooling water, not to exceed 6250 mg.liter.	0	
4/24/2018	SIO INTERNATIONAL WISCONSIN, INC. -ENERGY PLANT	WI-0284	P02A-P; P03A-P Cooling Towers	0		Drift Eliminator& Cooling Additive Control System	0	
9/27/2019	SUPERIOR REFINING COMPANY LLC	WI-0311	Cooling Tower No.1 (P80)	10000	GPM	Drift eliminator, cooling additive control system that results in a total dissolved solids (TDS) concentration of not more than 3,000 ppm.	0.0005	% CIRCULATION DRIFT

RBLC Entries for $PM_{2.5}$ Control from Cooling Towers

Date	Facility Name	RBLC ID	PROCESS NAME	THROUGHPUT	THROUGHPUT U	Control Method	Limit No. 1	Unit
9/23/2019	SUN BIO MATERIAL COMPANY	AR-0161	Cooling Towers	0		Drift Eliminators Low TDS	0.0005	% DRIFT LOSS
9/23/2019	SUN BIO MATERIAL COMPANY	AR-0161	Cooling Towers	0		Drift Eliminators Low TDS	0.0005	% DRIFT LOSS
12/4/2017	DANIA BEACH ENERGY CENTER	FL-0363	Mechanical draft cooling system	0		Certified drift rate < 0.0005%	0.0005	% DRIFT RATE
7/27/2018	SHADY HILLS COMBINED CYCLE FACILITY	FL-0367	Mechanical Draft Auxiliary Cooling System	0		Certified drift rate < 0.0005%	0.0005	% DRIFT RATE
6/7/2021	SHADY HILLS COMBINED CYCLE FACILITY	FL-0371	Mechanical Draft Auxiliary Cooling System	0		Certified drift rate < 0.0005%	0.0005	% DRIFT RATE
12/21/2023	CRONUS CHEMICALS	IL-0134	Cooling Tower	145310	gallons/minute	High efficiency drift eliminators	0.0005	PERCENT
6/11/2019	RIVERVIEW ENERGY CORPORATION	IN-0317	Cooling tower EU-6001	32000	GAL/HR	drift eliminator	2395	MG/L
7/14/2015	THE EMPIRE DISTRICT ELECTRIC COMPANY	KS-0029	Mechanical draft cooling tower	0		high efficiency drift eliminators (integral part of the design)	0.0005	% DRIFT RATE
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 09-01 - Melt Shop ICW Cooling Tower	52000	gal/min	High Efficiency Mist Eliminator. The mist eliminator drift loss shall be maintained at 0.001% or less to total gpm.	0.36	LB/HR
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 09-01 - Melt Shop ICW Cooling Tower	52000	gal/min	High Efficiency Mist Eliminator. The mist eliminator drift loss shall be maintained at 0.001% or less to total gpm.	0.0008	LB/HR
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 09-02 - Melt Shop DCW Cooling Tower	5900	gal/min	High Efficiency Mist Eliminator. The mist eliminator drift loss shall be maintained at 0.001% or less to total gpm.	0.04	LB/HR
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 09-02 - Melt Shop DCW Cooling Tower	5900	gal/min	High Efficiency Mist Eliminator. The mist eliminator drift loss shall be maintained at 0.001% or less to total gpm.	0.0001	LB/HR
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 09-03 - Rolling Mill ICW Cooling Tower	8500	gal/min	High Efficiency Mist Eliminator. The mist eliminator drift loss shall be maintained at 0.001% or less to total gpm.	0.06	LB/HR
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 09-03 - Rolling Mill ICW Cooling Tower	8500	gal/min	High Efficiency Mist Eliminator. The mist eliminator drift loss shall be maintained at 0.001% or less to total gpm.	0.0001	LB/HR
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 09-04 - Rolling Mill DCW Cooling Tower	22750	gal/min	High Efficiency Mist Eliminator. The mist eliminator drift loss shall be maintained at 0.001% or less to total gpm.	0.17	LB/HR
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 09-04 - Rolling Mill DCW Cooling Tower	22750	gal/min	High Efficiency Mist Eliminator. The mist eliminator drift loss shall be maintained at 0.001% or less to total gpm.	0.0004	LB/HR
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 09-05 - Rolling Mill Quench/ACC Cooling Tower	90000	gal/min	High Efficiency Mist Eliminator. The mist eliminator drift loss shall be maintained at 0.001% or less to total gpm.	0.78	LB/HR
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 09-05 - Rolling Mill Quench/ACC Cooling Tower	90000	gal/min	High Efficiency Mist Eliminator. The mist eliminator drift loss shall be maintained at 0.001% or less to total gpm.	0.0017	LB/HR
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 09-06 - Light Plate Quench DCW Cooling Tower	8000	gal/min	High Efficiency Mist Eliminator. The mist eliminator drift loss shall be maintained at 0.001% or less to total gpm.	0.06	LB/HR
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 09-06 - Light Plate Quench DCW Cooling Tower	8000	gal/min	High Efficiency Mist Eliminator. The mist eliminator drift loss shall be maintained at 0.001% or less to total gpm.	0.0001	LB/HR
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 09-07 - Heavy Plate Quench DCW Cooling Tower	3000	gal/min	High Efficiency Mist Eliminator. The mist eliminator drift loss shall be maintained at 0.001% or less to total gpm.	0.02	LB/HR
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 09-07 - Heavy Plate Quench DCW Cooling Tower	3000	gal/min	High Efficiency Mist Eliminator. The mist eliminator drift loss shall be maintained at 0.001% or less to total gpm.	0.0001	LB/HR
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 09-08 - Air Separation Plant Cooling Tower	14000	gal/min	High Efficiency Mist Eliminator. The mist eliminator drift loss shall be maintained at 0.001% or less to total gpm.	0.1	LB/HR
7/23/2020	NUCOR STEEL BRANDENBURG	KY-0110	EP 09-08 - Air Separation Plant Cooling Tower	14000	gal/min	High Efficiency Mist Eliminator. The mist eliminator drift loss shall be maintained at 0.001% or less to total gpm.	0.0002	LB/HR
4/19/2021	NUCOR STEEL GALLATIN, LLC	KY-0115	Laminar Cooling Tower - Hot Mill Cells (EP 03-09)	35000	gal/min	Mist Eliminator, 0.001% drift loss	0.27	LB/HR
4/19/2021	NUCOR STEEL GALLATIN, LLC	KY-0115	Laminar Cooling Tower - Hot Mill Cells (EP 03-09)	35000	gal/min	Mist Eliminator, 0.001% drift loss	0.0006	LB/HR
4/19/2021	NUCOR STEEL GALLATIN, LLC	KY-0115	Direct Cooling Tower-Caster; Roughing Mill Cells (EP 03-10)	26300	gal/min	Mist Eliminator, 0.001% drift loss	0.17	LB/HR
4/19/2021	NUCOR STEEL GALLATIN, LLC	KY-0115	Direct Cooling Tower-Caster; Roughing Mill Cells (EP 03-10)	26300	gal/min	Mist Eliminator, 0.001% drift loss	0.0004	LB/HR
4/19/2021	NUCOR STEEL GALLATIN, LLC	KY-0115	Melt Shop #2 Cooling Tower (indirect) (EP 03-11)	59500	gal/min	Mist Eliminator, 0.001% drift loss	0.39	LB/HR
4/19/2021	NUCOR STEEL GALLATIN, LLC	KY-0115	Melt Shop #2 Cooling Tower (indirect) (EP 03-11)	59500	gal/min	Mist Eliminator, 0.001% drift loss	0.0008	LB/HR
4/19/2021	NUCOR STEEL GALLATIN, LLC	KY-0115	Cold Mill Cooling Tower (EP 03-12)	20000	gal/min	Mist Eliminator, 0.001% drift loss	0.14	LB/HR
4/19/2021	NUCOR STEEL GALLATIN, LLC	KY-0115	Cold Mill Cooling Tower (EP 03-12)	20000	gal/min	Mist Eliminator, 0.001% drift loss	0.0003	LB/HR
4/19/2021	NUCOR STEEL GALLATIN, LLC	KY-0115	Air Separation Plant Cooling Tower (EP 03-13)	15000	gal/min	Mist Eliminator, 0.001% drift loss	0.08	LB/HR
4/19/2021	NUCOR STEEL GALLATIN, LLC	KY-0115	Air Separation Plant Cooling Tower (EP 03-13)	15000	gal/min	Mist Eliminator, 0.001% drift loss	0.0002	LB/HR
4/19/2021	NUCOR STEEL GALLATIN, LLC	KY-0115	DCW Auxiliary Cooling Tower (EP 03-14)	9250	gal/min	Mist Eliminator, 0.001% drift loss	0.06	LB/HR
4/19/2021	NUCOR STEEL GALLATIN, LLC	KY-0115	DCW Auxiliary Cooling Tower (EP 03-14)	9250	gal/min	Mist Eliminator, 0.001% drift loss	0.0001	LB/HR
7/25/2022	NOVELIS CORPORATION - GUTHRIE	KY-0116	EU 043 - Cooling Tower #1	0.15	MMgal/hr	Mist Eliminator (0.001% drift loss), Total Dissolved Solids (TDS) concentration limit of 1000 ppm	0.013	LB/HR
7/25/2022	NOVELIS CORPORATION - GUTHRIE	KY-0116	EU 043 - Cooling Tower #1	0.15	MMgal/hr	Mist Eliminator (0.001% drift loss), Total Dissolved Solids (TDS) concentration limit of 1000 ppm	0	LB/HR
6/30/2016	LAKE CHARLES METHANOL FACILITY	LA-0305	Cooling Towers	0		Drift eliminators	0.0005	%
12/20/2016	TOPCHEM POLLOCK, LLC	*LA-0306	Cooling Tower CT-16-1 (EQT032)	1000	gallons/min	High Efficiency Drift Eliminator	0.001	LB/H
6/4/2015	BENTELER STEEL TUBE FACILITY	LA-0309	Cooling Towers	0		drift eliminators	0.0005	% DRIFT RATE
6/30/2017	ST. JAMES METHANOL PLANT	*LA-0312	ECT-14 - Econamine Cooling Tower (EQT0018)	29120	gallons/min	High efficiency drift eliminators	0.01	TPY
6/30/2017	ST. JAMES METHANOL PLANT	*LA-0312	CT-13 - Cooling Tower (EQT0007)	231000	gallons/min	High efficiency drift eliminators	0.01	LB/HR
8/31/2016	ST. CHARLES POWER STATION	LA-0313	SCPS Cooling Tower 1	164400	gpm	High efficiency drift eliminators	1.24	LB/H
8/3/2016	INDORAMA LAKE CHARLES FACILITY	LA-0314	cooling towers - 007	86500	gpm	drift eliminators	0.0005	%
12/22/2016	METHANEX - GEISMAR METHANOL PLANT	LA-0317	cooling towers (I-CT-621, II-CT-621)	66000	gpm (each)	drift eliminators	0.001	%
1/9/2017	MONSANTO LULING PLANT	LA-0323	Cooling Water Tower	18000	gal/m	Drift Eliminators with Drift Factor of 0.003%	0	
6/3/2022	MAGNOLIA POWER GENERATING STATION UNIT 1	LA-0391	Cooling Tower	8400	gal/m	High-efficiency drift eliminators.	0.0005	%
12/12/2023	GEISMAR PLANT	*LA-0394	04-22 - AO-5 Cooling Water Tower, W-S5401	47410	gallons/min	Implementation of a heat exchange leak detection and repair program consistent with 40 CFR 63 Subpart F requirements	0.15	LB/HR

RBLC Entries for $PM_{2.5}$ Control from Cooling Towers

Date	Facility Name	RBLC ID	PROCESS NAME	THROUGHPUT	THROUGHPUT U	Control Method	Limit No. 1	Unit
12/20/2023	KOCH METHANOL (KME) FACILITY	*LA-0401	CWT - Cooling Water Tower	200000	gallons/min	Use of high efficiency drift eliminators	0	
12/13/2023	DESTREHAN OIL PROCESSING FACILITY	*LA-0402	HLK40 - Cooling Towers (EQT0095)	125856	gallons/min	Drift elimination system	0.02	LB/H
12/16/2024	SHINTECH PLAQUEMINE PLANT 4	*LA-0403	4C-4 - C/A Cooling Tower	64600	gallons/min	High efficiency drift eliminators	0.14	HR/YR
12/16/2024	SHINTECH PLAQUEMINE PLANT 4	*LA-0403	4M-7 - VCM Cooling Tower 1	122269	gallons/min	Drift eliminators	0.21	LB/HR
12/16/2024	SHINTECH PLAQUEMINE PLANT 4	*LA-0403	4M-18 - VCM Cooling Tower 2	28620	gallons/min	Drift eliminators	0.05	LB/HR
12/5/2016	HOLLAND BOARD OF PUBLIC WORKS - EAST 5TH STREET	MI-0424	EUCOOLTWR (Cooling Tower--Wet Mechanical Draft)	0		Mist/drift eliminators	2.37	T/YR
11/17/2017	FILER CITY STATION	MI-0427	EUCOOLTWR (Cooling Tower--Wet Mechanical Drift)	0		Mist/Drift Eliminators	0.0006	%
11/17/2017	FILER CITY STATION	MI-0427	EUCOOLTWR (Cooling Tower--Wet Mechanical Drift)	0		Mist/Drift Eliminators	0.0006	%
6/29/2018	MEC NORTH, LLC AND MEC SOUTH LLC	MI-0433	EUCOOLTOWER (North Plant): Cooling Tower	170000	GAL/M	High efficiency drift/mist eliminators	5.59	T/YR
6/29/2018	MEC NORTH, LLC AND MEC SOUTH LLC	MI-0433	EUCOOLTOWER (North Plant): Cooling Tower	170000	GAL/M	High efficiency drift/mist eliminators	2.85	T/YR
6/29/2018	MEC NORTH, LLC AND MEC SOUTH LLC	MI-0433	EUCOOLTOWER (South Plant): Cooling Tower	170000	GAL/M	High efficiency drift/mist eliminators.	5.59	T/YR
6/29/2018	MEC NORTH, LLC AND MEC SOUTH LLC	MI-0433	EUCOOLTOWER (South Plant): Cooling Tower	170000	GAL/M	High efficiency drift/mist eliminators.	2.85	T/YR
7/16/2018	BELLE RIVER COMBINED CYCLE POWER PLANT	MI-0435	EUCOOLINGTWR: Cooling Tower	0		High efficiency drift/mist eliminators	4.03	LB/H
7/16/2018	BELLE RIVER COMBINED CYCLE POWER PLANT	MI-0435	EUCOOLINGTWR: Cooling Tower	0		High efficiency drift/mist eliminators	0.48	LB/H
8/21/2019	THOMAS TOWNSHIP ENERGY, LLC	MI-0442	FGCOOLTWR	92500	GAL/M	Particulate in water droplets will be controlled with high efficiency drift/mist eliminators	0.6	T/YR
8/25/2015	CLEAN ENERGY FUTURE - LORDSTOWN, LLC	OH-0366	Wet Cooling Tower (P005)	165470	GAL/M	Drift eliminator with a maximum drift rate of 0.0005% and total dissolved solids (TDS) concentration of the cooling water less than or equal to 3,075 milligrams per liter.	0.51	LB/H
9/23/2016	SOUTH FIELD ENERGY LLC	OH-0367	Cooling Towers (2 identical, P005 and P006)	118441	GAL/M	High efficiency drift eliminators and minimize total dissolved solid (TDS)	0.534	LB/H
4/19/2017	PALLAS NITROGEN LLC	OH-0368	Cooling Towers #1; #2 (P010; P011)	79800	GAL/M	drift eliminators with a maximum drift rate specification of 0.0005 percent or less and total dissolved solids (TDS) concentration of the cooling water less than or equal to 5,000 milligrams per liter (mg/l)	0.0018	LB/H
9/7/2017	TRUMBULL ENERGY CENTER	OH-0370	Wet Cooling Tower (P005)	155083	GAL/M	drift eliminator with a maximum drift rate of 0.0005% and total dissolved solids (TDS) concentration of the cooling water less than or equal to 3,500 milligrams per liter (mg/l).	0.54	LB/H
9/27/2017	OREGON ENERGY CENTER	OH-0372	Wet Cooling Tower (P005)	155083	GAL/M	drift eliminator with a maximum drift rate of 0.0005% and total dissolved solids (TDS) concentration of the cooling water less than or equal to 3,500 milligrams per liter (mg/l).	0.36	LB/H
11/7/2017	LONG RIDGE ENERGY GENERATION LLC - HANNIBAL POWER	OH-0375	Wet Mechanical Draft Cooling Tower (P003)	120000	GAL/M	High efficiency drift eliminator designed to achieve a 0.0005% drift rate and total dissolved solids (TDS) content not to exceed 5,000 mg/L.	1.58	T/YR
2/9/2018	IRONUNITS LLC - TOLEDO HBI	OH-0376	Wet Cooling Tower (P005)	24766	GAL/M	drift eliminator with a maximum drift rate of 0.0005% and total dissolved solids (TDS) concentration of the cooling water less than or equal to 1,100 parts per million by weight (ppmw).	0.01	LB/H
12/21/2018	PTTGCA PETROCHEMICAL COMPLEX	OH-0378	Cooling Tower (P011)	13.88	MMGAL/H	High efficiency drift eliminator designed to achieve a 0.0005% drift rate and maintenance of a total dissolved solids (TDS) content not to exceed 2,000 ppm in the circulating cooling water based on a rolling 12-month average.	0.01	T/YR
9/27/2019	NORTHSTAR BLUESCOPE STEEL, LLC	OH-0381	Contact Cooling Towers - Melt Shop 2 (P027)	2.7	MMGAL/H	i.Use of drift eliminator(s) designed to achieve a 0.001% drift rate; ii.Maintenance of a total dissolved solids (TDS) content (for the 5 individual cooling towers) not to exceed the ppm in the circulating cooling water based on a rolling 12-month average as indicated in the table below: Cooling Tower - TDS (ppm) Meltshop 2 Cooling Tower - 1000 Caster Mold Water Cooling Tower - 800 Tunnel Furnace Cooling Tower - 800 Caster Non-Contact 2 Cooling Tower - 800 Caster Contact 2 Cooling Tower - 1400	1.17	T/YR
9/27/2019	NORTHSTAR BLUESCOPE STEEL, LLC	OH-0381	Contact Cooling Towers (P014)	6.41	MMGAL/H	i.Use of drift eliminator(s) designed to achieve a 0.003% drift rate; ii.Maintenance of a total dissolved solids (TDS) content (for the 5 individual cooling towers) not to exceed the ppm in the circulating cooling water based on a rolling 12-month average as indicated in the table below: Cooling Tower - TDS (ppm) Meltshop Cooling Tower (501) - 800 Caster Non-Contact Cooling Tower (6 Cell) - 800 Caster Contact Cooling Tower (503) - 1100 Mill Contact Cooling Tower (505) - 2000 Laminar Flow Cooling Tower (506) - 1400	8.7	T/YR
9/27/2019	NORTHSTAR BLUESCOPE STEEL, LLC	OH-0381	Contact Cooling Towers (P014)	6.41	MMGAL/H	i.Use of drift eliminator(s) designed to achieve a 0.003% drift rate; ii.Maintenance of a total dissolved solids (TDS) content (for the 5 individual cooling towers) not to exceed the ppm in the circulating cooling water based on a rolling 12-month average as indicated in the table below: Cooling Tower - TDS (ppm) Meltshop Cooling Tower (501) - 800 Caster Non-Contact Cooling Tower (6 Cell) - 800 Caster Contact Cooling Tower (503) - 1100 Mill Contact Cooling Tower (505) - 2000 Laminar Flow Cooling Tower (506) - 1400	0.02	T/YR
9/20/2022	INTEL OHIO SITE	OH-0387	Cooling Towers: P054 through P178	0		Drift eliminator	0.0005	%
10/27/2023	VALENCIA PROJECT LLC	OH-0391	Cooling Towers (P023, P024, P025)	0		A drift eliminator achieving â€œdrift lossâ€ equal to or less than 0.0005 percent	0.02	LB/H
10/31/2023	SCOUT MOTORS INC A DELAWARE CORPORATION - BLYTHEWOOD PLANT	SC-0205	Cooling Towers	0		Drift Eliminator	0.001	% DRIFT RATE
10/31/2023	SCOUT MOTORS INC A DELAWARE CORPORATION - BLYTHEWOOD PLANT	SC-0205	Cooling Towers	0		Drift Eliminator	0.001	% DRIFT RATE

RBLC Entries for $PM_{2.5}$ Control from Cooling Towers

Date	Facility Name	RBLC ID	PROCESS NAME	THROUGHPUT	THROUGHPUT U	Control Method	Limit No. 1	Unit
4/1/2015	PEONY CHEMICAL MANUFACTURING FACILITY	TX-0728	Cooling tower	40000	gallons per minute	drift eliminator is 0.0005% efficient	0.12	LB/H
11/12/2015	BISHOP FACILITY	TX-0774	Cooling Tower	10400		Drift eliminators meeting 0.001% drift	0.01	TPY
7/12/2016	PL PROPYLENE HOUSTON OLEFINS PLANT	TX-0803	Cooling Tower	0		drift eliminators	0.001	% DRIFT
1/9/2018	EXXONMOBIL BEAUMONT REFINERY	TX-0832	COOLING TOWERS	0		DRIFT ELIMINATOR	0	
3/30/2018	MONTGOMERY COUNTY POWER STATIOIN	TX-0834	COOLING TOWER	9864000	GAL/H	DRIFT ELIMINATORS	0	
9/3/2019	POLYETHYLENE 7 FACILITY	TX-0863	COOLING TOWER	0		DRIFT ELIMINATOR	0	
9/9/2019	EQUISTAR CHEMICALS CHANNELVIEW COMPLEX	TX-0864	Cooling Tower	0		DRIFT ELIMINATORS	0.005	% DRIFT
9/9/2019	EQUISTAR CHEMICALS CHANNELVIEW COMPLEX	TX-0865	COOLING TOWER	0		DRIFT ELIMINATORS	6000	PPMW
2/4/2020	PORT ARTHUR REFINERY	TX-0873	COOLING TOWER	35000	GPM	DRIFT ELIMINATORS	0	
2/6/2020	PORT ARTHUR ETHANE CRACKER UNIT	TX-0876	COOLING TOWER	0		DRIFT ELIMINATORS	1200	PPM
2/6/2020	PORT ARTHUR ETHANE CRACKER UNIT	TX-0876	COOLING TOWER	0		DRIFT ELIMINATORS	1200	PPM
4/23/2020	ORANGE POLYETHYLENE PLANT	TX-0888	COOLING TOWERS	0		DRIFT ELIMINATORS	0	
9/9/2020	MOTIVA POLYETHYLENE MANUFACTURING COMPLEX	TX-0904	COOLING TOWER	0		Non-contact design and DRIFT ELIMINATORS	0	
9/16/2020	DIAMOND GREEN DIESEL PORT ARTHUR FACILITY	TX-0905	COOLING TOWER	0		DRIFT ELIMINATORS 0.001%	0	
3/17/2021	UNIT 5	TX-0915	COOLING TOWER	0		Drift eliminators â€“ 0.0005%	60000	PPM
6/13/2022	HOUSTON PLANT - 46307	TX-0922	COOLING TOWER	0		Drift eliminators with 0.0005% drift	0	
10/19/2021	CENTURION BROWNSVILLE	TX-0930	Cooling Tower	0		Drift eliminators required. Maximum drift 0.0005 percent. TDS limit of 3,500 ppmw in the cooling water. Daily sampling for TDS required, or weekly TDS sampling is allowed if conductivity is monitored daily and a TDS to conductivity ratio is established.	0	
12/16/2021	ROEHM AMERICA BAY CITY SITE	TX-0931	Cooling Tower	0		Drift eliminators with 0.001% drift	0	
5/3/2024	VALERO CORPUS CHRISTI REFINERY WEST PLANT	TX-0938	COOLING TOWER	0		Drift eliminators 0.001% drift	0	
3/13/2023	ORANGE COUNTY ADVANCED POWER STATION	TX-0939	COOLING TOWER	13734000	GAL/HR	0.001% DRIFT ELIMINATORS	0	
9/6/2022	FIBERGLASS MANUFACTURING FACILITY	TX-0940	COOLING TOWER	2175	GAL/MIN	DRIFT ELIMINATOR	0.001	%
10/5/2023	NEDERLAND FACILITY	TX-0964	COOLING TOWERS	0		Drift eliminators with 0.001% drift	2000	PPMW
2/5/2024	QUAIL RUN CARBON CAPTURE PLANT	TX-0967	COOLING TOWERS	142700	gal/min	drift eliminators 0.0005%	0	
4/26/2018	C4GT, LLC	VA-0328	Cooling Tower	0		Particulate matter emissions from the cooling tower will be controlled to a drift rate of 0.00050 percent of the circulating water flow with mist eliminators and a total dissolved solids content of the cooling water effluent shall not exceed 6250 mg/l	0	
4/24/2018	SIO INTERNATIONAL WISCONSIN, INC. -ENERGY PLANT	WI-0284	P02A-P; P03A-P Cooling Towers	0		Drift Eliminator& Cooling Additive Control System	0	
9/27/2019	SUPERIOR REFINING COMPANY LLC	WI-0311	Cooling Tower No.1 (P80)	10000	GPM	Drift eliminator, cooling additive control system that results in a total dissolved solids (TDS) concentration of not more than 3,000 ppm.	0.0005	% CIRCULATION DRIFT

RBLC Entries for Volatile Organic Compounds Control from Storage Tanks

Date	Facility Name	RBLC ID	PROCESS NAME	THROUGHPUT	THROUGHPUT UNIT	Control Method	Limit No. 1	Unit
1/6/2015	KENAI NITROGEN OPERATIONS	AK-0083	Urea UF-85 Storage Tank	30440	gallons	Wet Scrubber	0	LB/H
1/6/2015	KENAI NITROGEN OPERATIONS	AK-0083	Two (2) Methyl-diethanol Amine (MDEA) Storage Tanks	158420	gallons	Submerged Fill Design	0.002	TONS/YEAR
3/26/2021	KENAI NITROGEN OPERATIONS	AK-0086	Urea UF-85 Storage Tank	0		Wet Scrubber	0	LB/HR
3/26/2021	KENAI NITROGEN OPERATIONS	AK-0086	MDEA Storage Tanks	0		Submerged Fill Design	0.002	TPY (COMBINED)
8/3/2015	EL DORADO SAWMILL	AR-0124	ELEVEN OIL STORAGE TANKS SN-14	0		ENCLOSED TANKS, TANKS ARE LIGHT COLOR	0.3	LB/H
8/3/2015	EL DORADO SAWMILL	AR-0124	THREE DIESEL STORAGE TANKS SN-15	0		TANKS ARE LIGHT COLOR	0.4	LB/H
8/3/2015	EL DORADO SAWMILL	AR-0124	ONE GASOLINE STORAGE TANK SN-16	0		TANKS ARE LIGHT COLOR	0.022	LB/MBF
12/21/2023	CRONUS CHEMICALS	IL-0134	Storage Tanks	0		Submerged fill pipes	0.01	TONS/YEAR
10/26/2015	CENTRAL INDIANA ETHANOL, LLC	IN-0241	FERMENTATION	7266	GAL/H	WET SCRUBBERS	98	%OVERALL CTRL EFFIC
6/27/2019	LEHIGH CEMENT COMPANY LLC	IN-0312	Diesel tanks	1400	GALLONS (EACH)	good design and operating practices	0	
6/27/2019	LEHIGH CEMENT COMPANY LLC	IN-0312	Gasoline tank	500	gallons	submerged fill pipe and Stage I Vapor Control	0	
6/11/2019	RIVERVIEW ENERGY CORPORATION	IN-0318	Amine Tanks	0		Tanks shall use a white shell. Tanks shall use submerged filling. Tanks shall use good maintenance practices as described in the permit.	0.48	TONS
12/27/2020	LOGAN ALUMINUM, INC.	KY-0103	EP 155 & 166 - Cold Mill 4 Storage Tanks: Dirty Coolant & Clean Coolant	0		Each tank shall be equipped with a permanent submerged fill pipe.	1.82	TON/YR
12/27/2020	LOGAN ALUMINUM, INC.	KY-0103	EP 156 - EP160 - Cold Mill 4 Area Storage Tanks	0		Each tank must be equipped with a submerged fill pipe.	0	
12/15/2016	BATON ROUGE JUNCTION FACILITY	LA-0276	Sumps (2) and Oil/Water Separators (2)	0		Good housekeeping practices and closed top design	0	
6/30/2017	ST. JAMES METHANOL PLANT	*LA-0312	MPST-14 - Methanol Product Surge Tank (EQT0019)	41000	gallons	Route emissions to Methanol Product Tanks A & B	0	
6/30/2017	ST. JAMES METHANOL PLANT	*LA-0312	MT-13 - Methanol Product Tank A (EQT0014)	54400	barrels	Internal Floating Roof Tank and Compliance with NESHAP Subpart G	0	
6/30/2017	ST. JAMES METHANOL PLANT	*LA-0312	OSMT1-13 - Crude Methanol Tank (EQT0017)	54400	barrels	Fixed Roof Tank with Scrubber & Compliance with NESHAP Subpart G	0	
6/30/2017	ST. JAMES METHANOL PLANT	*LA-0312	MT2-13 - Methanol Product Tank B (EQT0015)	54400	barrels	Internal Floating Roof Tank and Compliance with NESHAP Subpart G	0	
3/28/2023	COMMONWEALTH LNG FACILITY	LA-0324	Storage Vessels (EQT0022 - EQT0026)	0		Fixed roofs	0	
1/19/2021	SHINTECH PLAQUEMINE PLANT 3	LA-0339	Storage Vessels (EQT0447 - EQT0450, EQT0460 - EQT0468, EQT0472 - EQT0475)	0		Submerged-fill loading	0	
10/2/2019	HOLDEN WOOD PRODUCTS MILL	LA-0363	Diesel Storage Tank	150000	gallons/yr	Good Tank Design and Submerged Fill Page.	14000	GAL
10/2/2019	HOLDEN WOOD PRODUCTS MILL	LA-0363	Gasoline Storage Tank	25000	gallons/yr	Good Tank Design and Submerged Fill Pipe	6000	GAL
12/13/2023	DESTREHAN OIL PROCESSING FACILITY	*LA-0402	HLK41 - Hexane Tank #1 (EQT0100)	50000	gallons		0	
12/13/2023	DESTREHAN OIL PROCESSING FACILITY	*LA-0402	HLK42 - Hexane Tank #2 (EQT0101)	50000	gallons		0	
12/13/2023	DESTREHAN OIL PROCESSING FACILITY	*LA-0402	HLK43 - Hexane Tank #3 (EQT0102)	50000	gallons		0	
12/13/2023	DESTREHAN OIL PROCESSING FACILITY	*LA-0402	HLK44 - Hexane Tank #4 (EQT0103)	50000	gallons		0	
8/7/2024	BLUE LAKE	MN-0095	Diesel Tank #1 (EQUI 33)	0		Must be constructed and operated with good tank design, including: 1 Fixed roof, 2 PRV (conservation vent), 3 Submerged fill pipe, 4 Light tank color	0	
2/12/2021	MARCUS HOOK	*PA-0324	Refrigerated storage tanks	600000	Barrels	Ethane Vapors condensed to a liquid state by a vapor recover system before being hard-piped back to the storage tank.	0	
10/31/2023	SCOUT MOTORS INC A DELAWARE CORPORATION - BLYTHEWOOD PLANT	SC-0205	Storage Tanks	0		Good Work Practices	0	
2/5/2016	LBC HOUSTON BAYPORT TERMINAL	TX-0783	Storage Tanks	0		Sixteen tanks have internal floating roofs (IFRs) with welded seams, mechanical shoe primary seals, rim-mounted secondary seals, and welded deck seams. Based on site-specific attributes, the applicant has chosen to control tanks that store benzene or organic materials with a vapor pressure greater than 0.5 psia at the maximum feed temperature or 95Â°F, whichever is greater. The emissions from these tanks will be routed to a vapor combustor.	0.26	T/YR
2/5/2016	LBC HOUSTON BAYPORT TERMINAL	TX-0783	Marine Loading	0		All loading operations are conducted with submerged fill piping. The follow requirements apply to the loading of materials with a vapor pressure greater than 0.5 psia. 1) Vapors generated during loading must be routed to a vapor combustor for control. 2) The receiving vessel must have passed an annual vapor tightness test as specified in 40 CFR Â§63.565(c) or 40 CFR Â§61.304(f). 3) Loading operations are conducted under vacuum for non-inerted, non-ocean-going ships. 4) For inerted tanker ships and ocean-going barges, a leak test per EPA Reference Method 21 will be conducted on the vapor collection system. An infrared camera for optical gas imaging may be used to assist leak testing per Method 21. Upon leak discovery, the applicant will measure the leak emission rate with a portable flow meter. Leak testing/emission measurement must be conducted for a minimum of 6 vessels or the number of inerted ocean-going vessels loaded, whichever is less, every year. Method 21 leak testing may be suspended after five years provided that all tests confirm a vapor collection efficiency of 99% or greater.	0.11	T/YR
10/31/2018	CORPUS CHRISTI TERMINAL	TX-0840	Crude and condensate storage	30000	BBL/H	IFR TANKS: 9 tanks (EPNs: TK-100-101 through TK-100-109) to store crude oil and condensate with a VP > 0.5 psia and with capacities > 25,000 gallons. Each of the tanks is equipped with an internal floating roof and is equipped with either a mechanical shoe or double vapor mounted seal.	0	
9/23/2018	MOTOR VEHICLE ASSEMBLY PLANT	TX-0846	Gasoline Storage Tank â€“ 15,000 Gallons	15000000	GAL/YR	White fixed roof storage tank equipped with a submerged fill pipe and vapor balance loading (Stage 1 Controls). The use of drain dry construction is required to minimize the emissions from tank entry and inspection.	0	

RBLC Entries for Volatile Organic Compounds Control from Storage Tanks

Date	Facility Name	RBLC ID	PROCESS NAME	THROUGHPUT	THROUGHPUT UNIT	Control Method	Limit No. 1	Unit
9/23/2018	MOTOR VEHICLE ASSEMBLY PLANT	TX-0846	Storage Tanks â€“ Very Low Vapor Pressure Non Gasoline Automotive Fluids â€“ Gear Lube, Engine Oil, Diesel fuel, Urea, ATF Etc. <20,000 gal each	0		White fixed roof storage tanks equipped with a submerged fill pipe. use of drain dry construction is required to minimize the emissions from tank entry and inspection.	0	
7/15/2018	CORPUS CHRISTI TERMINAL	TX-0850	Crude and condensate storage in nine IFR	0		100 series tanks storing crude / condensate (EPNs: S-100-101 through S-100-109). These tanks will be authorized to store crude oil and condensate with a VP > 0.5 psia and with capacities > 25,000 gallons. Each of the tanks is equipped with an internal floating roof and is equipped with either a mechanical shoe or double vapor mounted seal. 6 EFR tanks storing crude / condensate (EPNs: S-200M4, S-200M5, S-200M6, S-200M7, S-200M8 and S-200M9) These tanks will be equipped with welded deck seams since the tank will store products with VOC vapor pressure of 0.5 psia or greater. Proper fitting and seal integrity for the floating roof is ensured through visual inspections and any seal gap measurements specified in 40 CFR Â§ 60.113b.	0	
12/17/2018	RIO BRAVO PIPELINE FACILITY	TX-0851	Natural Gas Liquid Condensate Tanks and Condensate Loading	0		THERMAL OXIDIZER	0	
12/17/2018	RIO BRAVO PIPELINE FACILITY	TX-0851	Liquefied Natural Gas Storage Tanks	0		THERMAL OXIDIZER	0	
9/27/2019	BUCKEYE TEXAS HUB	TX-0862	Fugitives	0		28 VHP & 28CNTA LDAR	0	
9/3/2019	POLYETHYLENE 7 FACILITY	TX-0863	Storage tanks content vapor pressure less than 0.5 psia	0		FLARE	0	
9/3/2019	POLYETHYLENE 7 FACILITY	TX-0863	Storage tanks content vapor pressure greater than or equal to 0.5 psia	0		IFR AND FLARE	0	
10/31/2019	CONDENSATE SPLITTER FACILITY	TX-0872	IFR tanks with equal or less than 0.5 psia VP (Routine)	4	MBBL/YR	Equipped with welded decks and permanent submerged fill pipes. Designed with a mechanical shoe seal system and drain dry sump. Seal visual inspections required via 40 CFR Â§60.113b.	5.65	LB/H
2/4/2020	PORT ARTHUR REFINERY	TX-0874	IFR Storage Tanks1 â€“ Materials with a VP greater than 0.5 psia and less than 11.0 psia	0		tanks are equipped with welded decks as well as a mechanical shoe and rim-mounted secondary seal systems. Submerge filled equipped. Drain dry and store material with less than 11.0 psia	0	
3/5/2021	LBC HOUSTON BAYPORT TERMINAL	TX-0899	STORAGE TANKS	0		internal floating roofs (IFRs) with welded seams, mechanical shoe primary seals, rim-mounted secondary seals, and welded deck seams.	0	
3/5/2021	LBC HOUSTON BAYPORT TERMINAL	TX-0899	MARINE LOADING	0		Vapor combustors will have a VOC destruction efficiency of 99.9%, be temperature monitored, low NOx burners (0.06 lb/MMBtu/hr annual average), and exclusive use of pipeline quality natural gas and good combustion practices. These controls meet LAER.	0	
3/5/2021	CEDAR BAYOU PLANT	TX-0918	STORAGE TANKS	0		have internal floating roofs (IFRs) with welded seams, mechanical shoe primary seals, rim-mounted secondary seals, and welded deck seams. Based on site-specific attributes, the applicant has chosen to control tanks that store benzene or organic materials with a vapor pressure greater than 0.5 psia at the maximum feed	0	
3/5/2021	CEDAR BAYOU PLANT	TX-0918	FIXED ROOF STORAGE TANKS	0		fixed roof tanks have submerged fill pipes and are painted white. These tanks store material with vapor pressures less than 0.5 psia.	0	
3/5/2021	CEDAR BAYOU PLANT	TX-0918	STORAGE TANK MSS	0		All tanks will be drain-dry. Vapor combustors will be used to control degassing emissions down to a concentration of 5,000 ppmv. When the tank is idle, degassing will be performed every 24 hours unless there is no standing liquid in the tank or the vapor pressure of the remaining liquid is less than 0.15 psia. Refilling operations will be uncontrolled.	0	
3/5/2021	CEDAR BAYOU PLANT	TX-0918	MARINE LOADING	0		All loading operations are conducted with submerged fill piping. The follow requirements apply to the loading of materials with a vapor pressure greater than 0.5 psia. 1) Vapors generated during loading must be routed to a vapor combustor for control. 2) The receiving vessel must have passed an annual vapor tightness test as specified in 40 CFR Â§63.565(c) or 40 CFR Â§61.304(f). 3) Loading operations are conducted under vacuum for non-inerted, non-ocean-going ships. 4) For inerted tanker ships and ocean-going barges, a leak test per EPA Reference Method 21 will be conducted on the vapor collection system. An infrared camera for optical gas imaging may be used to assist leak testing per Method 21. Upon leak discovery, the applicant will measure the leak emission rate with a portable flow meter. Leak testing/emission measurement must be conducted for a minimum of 6 vessels or the number of inerted ocean-going vessels loaded, whichever is less, every year. Method 21 leak testing may be suspended after five years provided that all tests confirm a vapor collection efficiency of 99% or greater.	0	
3/14/2023	INEOS OLIGOMERS CHOCOLATE BAYOU	TX-0955	Fixed roof storage tanks	0		Fixed roof tanks, painted white, has submerged fill. Air, nitrogen other purge gas, fans, blowers, or air movers may not be used on the tank, unless all the forced ventilated vapors are directed to control. Vacuum truck vents must limit VOC concentration to 100 ppmv. Frac Tanks with breathing potential must be white and bottom filled.	0	

RBLC Entries for Volatile Organic Compounds Control from Storage Tanks

Date	Facility Name	RBLC ID	PROCESS NAME	THROUGHPUT	THROUGHPUT UNIT	Control Method	Limit No. 1	Unit
3/14/2023	INEOS OLIGOMERS CHOCOLATE BAYOU	TX-0955	Internal Floating Roof Storage Tanks Normal and MSS	0		Painted white, mechanical shoe primary seal, drain to 9 gal max and 99.9 % destruction efficiency by the thermal oxidizer (THOX) or 98 % control by flare. Degassing for de-inventory / maintenance must achieve a vapor concentration <10,000 ppmv and the tank may not be opened without restriction until residual liquids have VOC partial pressure < 0.02 psia or no standing liquids. A Vacuum truck vents must limit VOC concentration to 100 ppmv. Frac Tanks with breathing potential must be white and bottom filled.ir, nitrogen other purge gas, fans, blowers, or air movers may not be used on the tank at any time the tank is open to the atmosphere	0	
9/22/2021	ENBRIDGE SUPERIOR TERMINAL	WI-0307	Temporary Frac Tanks (FC01-FC04)	0		see notes	0	SEE NOTES
9/22/2021	ENBRIDGE SUPERIOR TERMINAL	WI-0307	Temporary Frac Tanks (FC05-FC12)	0		See notes	0	SEE NOTES
10/9/2020	SUPERIOR REFINING COMPANY LLC	WI-0315	Storage Tank (T114)	0		Use of submerged fill pipe, may store only asphalt	1845	LB/MO

RBLC Entries for Volatile Organic Compounds Control from Fugitives

Date	Facility Name	RBLC ID	PROCESS NAME	THROUGHPUT	THROUGHPUT UNIT	Control Method	Limit No. 1	Unit
2/14/2019	NUCOR STEEL FLORIDA FACILITY	FL-0368	Meltshop Baghouse & Fugitives	450000	tons of steel per year	Good combustion practice and process control along with a scrap management plan	0.3	LB/TON OF STEEL
3/17/2021	SHELL ROCK SOY PROCESSING	*IA-0117	Fugitive VOC Sources	0			0.14	GAL/TON
9/21/2020	WESTLAKE CHEMICAL OPCO, LP	KY-0113	EU# 025A (EPN FUG-ETH-VVa) Ethylene Plant Fugitives	0		Leak is defined as reading of 500ppmv; BACT includes: proper labeling and following the requirements in 40 CFR 60, Subpart VVa and following good work practices including: 1.Construction of new and reworked piping, valves, pump systems, and compressor systems shall conform to applicable American National Standards Institute (ANSI), American Petroleum Institute (API), American Society of Mechanical Engineers (ASME), or equivalent codes based on the material. 2. New and reworked buried connectors shall be welded. 3. To the extent that good engineering practice will permit, new and reworked valves and piping connections shall be reasonably accessible for leak checking during plant operation. 4. Damaged, leaking, or severely rusted valves, connectors, compressor seals, agitator seals, and pump seals found by visual inspection to be leaking (e.g., process fluids) shall be tagged and replaced or repaired. All leaking components that cannot be repaired until a scheduled shutdown shall be identified for such repair by tagging. 5. Open-ended lines are required to be equipped with a cap, plug, blind flange, or second valve. 6. New relief valves are required to vent to a control device for any potential releases and as a result, any fugitive emissions are reduced. Exceptions may be made if venting relief valves to control will result in a safety concern, but this does not exempt the company from controls such as equipping the valve with a rupture disk and pressure-sensing device.	0	
9/21/2020	WESTLAKE CHEMICAL OPCO, LP	KY-0113	EU# 025B (EPN FUG-ETH) Ethylene Plant Fugitives	0		Leak is defined as reading of 500ppmv; BACT includes: proper labeling and following the requirements in 40 CFR 60, Subpart VVa and following good work practices including: 1.Construction of new and reworked piping, valves, pump systems, and compressor systems shall conform to applicable American National Standards Institute (ANSI), American Petroleum Institute (API), American Society of Mechanical Engineers (ASME), or equivalent codes based on the material. 2. New and reworked buried connectors shall be welded. 3. To the extent that good engineering practice will permit, new and reworked valves and piping connections shall be reasonably accessible for leak checking during plant operation. 4. Damaged, leaking, or severely rusted valves, connectors, compressor seals, agitator seals, and pump seals found by visual inspection to be leaking (e.g., process fluids) shall be tagged and replaced or repaired. All leaking components that cannot be repaired until a scheduled shutdown shall be identified for such repair by tagging. 5. Open-ended lines are required to be equipped with a cap, plug, blind flange, or second valve. 6. New relief valves are required to vent to a control device for any potential releases and as a result, any fugitive emissions are reduced. Exceptions may be made if venting relief valves to control will result in a safety concern, but this does not exempt the company from controls such as equipping the valve with a rupture disk and pressure-sensing device.	0	
9/21/2020	WESTLAKE CHEMICAL OPCO, LP	KY-0113	EU# 025 (EPN FUG-ETH-YY) Ethylene Plant Fugitives	0		Leak is defined as reading of 500ppmv; BACT includes: proper labeling and following the requirements in 40 CFR 63, Subpart YY and Subpart UU and following good work practices including: 1.Construction of new and reworked piping, valves, pump systems, and compressor systems shall conform to applicable American National Standards Institute (ANSI), American Petroleum Institute (API), American Society of Mechanical Engineers (ASME), or equivalent codes based on the material. 2. New and reworked buried connectors shall be welded. 3. To the extent that good engineering practice will permit, new and reworked valves and piping connections shall be reasonably accessible for leak checking during plant operation. 4. Damaged, leaking, or severely rusted valves, connectors, compressor seals, agitator seals, and pump seals found by visual inspection to be leaking (e.g., process fluids) shall be tagged and replaced or repaired. All leaking components that cannot be repaired until a scheduled shutdown shall be identified for such repair by tagging. 5. Open-ended lines are required to be equipped with a cap, plug, blind flange, or second valve. 6. New relief valves are required to vent to a control device for any potential releases and as a result, any fugitive emissions are reduced. Exceptions may be made if venting relief valves to control will result in a safety concern, but this does not exempt the company from controls such as equipping the valve with a rupture disk and pressure-sensing device.	0	

RBLC Entries for Volatile Organic Compounds Control from Fugitives

Date	Facility Name	RBLC ID	PROCESS NAME	THROUGHPUT	THROUGHPUT UNIT	Control Method	Limit No. 1	Unit
11/13/2020	WESTLAKE VINYLS, INC.- VINYLS PLANT	KY-0114	FUG-MON-H Monomer Plant Fugitives	0		1.The permittee will continue to follow MACT H LDAR program as required by the regulations, and promptly repairing any leaking components in accordance with the LDAR plan. 2.Leak is defined as a reading of 500 ppmv. 3.The permittee will install leakless pumps with dual mechanical seals or with a barrier fluid to reduce leaks, as possible. If a leakless pump is not feasible, the permittee shall submit justification as to its technical infeasibility. 4.The permittee will monitor new non-leakless pumps to a leak detection threshold of 500 ppm. 5.The permittee will utilize Good Work Practices. Good work practices include: 1. Construction of new and reworked piping, valves, pump systems, and compressor systems shall conform to applicable American National Standards Institute (ANSI), American Petroleum Institute (API), American Society of Mechanical Engineers (ASME), or equivalent codes based on the material. 2. New and reworked buried connectors shall be welded. 3. To the extent that good engineering practice will permit, new and reworked valves and piping connections shall be reasonably accessible for leak checking during plant operation. 4. Damaged, leaking, or severely rusted valves, connectors, compressor seals, agitator seals, and pump seals found by visual inspection to be leaking (e.g., process fluids) shall be tagged and replaced or repaired. All leaking components that cannot be repaired until a scheduled shutdown shall be identified for such repair by tagging. 5. Open-ended lines are required to be equipped with a cap, plug, blind flange, or second valve. 6. New relief valves are required to vent to a control device for any potential releases and as a result, any fugitive emissions are reduced. Exceptions may be made if venting relief valves to control will result in a safety concern, but this does not exempt the company from controls such as equipping the valve with a rupture disk and pressure-sensing device.	0	
11/13/2020	WESTLAKE VINYLS, INC.- VINYLS PLANT	KY-0114	FUG-MON-NG Monomer Plant Fugitives in Natural Gas service	0		1. LDAR program with instrument sensors consistent with 40 CFR 63, Subpart H requirements. 2. Leak is defined as a reading of 500 ppmv. 3. Good work practices. 4. The permittee shall install leak-less pumps with dual mechanical seals or with a barrier fluid to reduce leaks. If a leak-less pump is not feasible, the permittee shall submit justification as to its technical infeasibility. Good work practices including: Construction of new and reworked piping, valves, pump systems, and compressor systems shall conform to applicable American National Standards Institute (ANSI), American Petroleum Institute (API), American Society of Mechanical Engineers (ASME), or equivalent codes based on the material. 2. New and reworked buried connectors shall be welded. 3. To the extent that good engineering practice will permit, new and reworked valves and piping connections shall be reasonably accessible for leak checking during plant operation. 4. Damaged, leaking, or severely rusted valves, connectors, compressor seals, agitator seals, and pump seals found by visual inspection to be leaking (e.g., process fluids) shall be tagged and replaced or repaired. All leaking components that cannot be repaired until a scheduled shutdown shall be identified for such repair by tagging. 5. Open-ended lines are required to be equipped with a cap, plug, blind flange, or second valve. 6. New relief valves are required to vent to a control device for any potential releases and as a result, any fugitive emissions are reduced. Exceptions may be made if venting relief valves to control will result in a safety concern, but this does not exempt the company from controls such as equipping the valve with a rupture disk and pressure-sensing device.	0	
4/2/2015	ALLIANCE REFINERY	LA-0282	Unit Fugitives for the Low Sulfur Gasoline Unit (294-FF, FUG 0004)	0		Louisiana MACT Determination for Refinery Equipment Leaks (Fugitive Emission Sources) dated July 26, 1994	15.43	LB/HR
8/14/2015	ALLIANCE REFINERY	LA-0283	UNIT FUGITIVES FOR LOW SULFUR GASOLINE UNIT (294-FF, FUG 0004)	0		LDAR: Louisiana MACT Determination for Refinery Equipment Leaks (Fugitive Emission Sources) dated July 26, 1994	15.43	LB/HR
9/2/2015	ALLIANCE REFINERY	LA-0284	Unit Fugitives for Loading Docks (406-FF, FUG 11)	0		LDAR: 40 CFR 63 Subpart H	0	
3/21/2016	MAGNOLIA LNG FACILITY	LA-0307	fugitives	0		Comply with LAC 33:III.2111	0	
6/30/2017	ST. JAMES METHANOL PLANT	*LA-0312	WWTF-13 - Wastewater Treatment Fugitives (FUG0001)	460	gallons/min	Compliance with NESHAP Subpart F and NESHAP Subpart G. LDAR Monitoring.	0.29	LB/HR
6/30/2017	ST. JAMES METHANOL PLANT	*LA-0312	PF-13 - Process Fugitives (FUG0002)	0		Compliance with NESHAP Subpart H. LDAR Monitoring.	0	
5/2/2018	PLAQUEMINES PLANT 1	LA-0328	Fugitive Emissions (Bio)	0		Comply with 40 CFR 63 Subpart H	0.35	LB/H
5/2/2018	PLAQUEMINES PLANT 1	LA-0328	PVC Unit Fugitives	0		Comply with 40 CFR 63 Subpart H	0.263	LB/H
1/19/2021	SHINTECH PLAQUEMINE PLANT 3	LA-0339	Fugitives (FUG0021)	0		Compliance with 40 CFR 60 Subpart HHHHHHH	0	
1/4/2018	GULF COAST METHANOL COMPLEX	LA-0346	fugitives	0		LDAR meets requirements of 40 CFR 63 Subpart H	0	
7/10/2018	DRIFTWOOD LNG FACILITY	LA-0349	Fugitives	0		Good Work Practices, Comply with LAC 33:III.2111, 40 CFR 63 Subpart H, TT, or UU, as applicable	0	
9/6/2018	GARYVILLE REFINERY	LA-0355	Fugitives from Crude Unit, Coker Unit and FCCU	0		Comply with 40 CFR 60 Subpart GGGa	0	
7/18/2019	LAKE CHARLES REFINERY, AREA D	LA-0362	Area D Process D Fugitives	0		Compliance with the most stringent applicable Leak Detection and Repair (LDAR) program, which is Louisiana MACT Determination for Refineries with Consent Decree Enhancements.	24.44	LB/H
2/3/2021	HOLDEN WOOD PRODUCTS MILL	LA-0366	Shavings Bin and Truck Load-out Fugitives	13.9	t/h		13.9	T/HR
1/5/2021	LAKE CHARLES CHEMICAL COMPLEX	LA-0373	UO&I Fugitives - FUG0024	0		Comply with 40 CFR 63 Subpart UU	0	
4/25/2019	BIG LAKE FUELS METHANOL PLANT	LA-0382	Fugitives (FUG0001)	0		Comply with 40 CFR 63 Subpart H	0	
9/3/2020	LAKE CHARLES LNG EXPORT TERMINAL	LA-0383	Fugitives (FUG0001)	0		Proper piping design and LDAR	0	

RBLC Entries for Volatile Organic Compounds Control from Fugitives

Date	Facility Name	RBLC ID	PROCESS NAME	THROUGHPUT	THROUGHPUT UNIT	Control Method	Limit No. 1	Unit
2/11/2021	GARYVILLE REFINERY	LA-0385	Refinery Fugitives	0		Comply with 40 CFR 60 Subpart GGGa (for components servicing streams with 10% or more VOC)	0	
6/27/2023	WEYERHAEUSER NR CO - DODSON DIVISION	LA-0393	Fugitive Ink Emissions	0.38	GAL/H	Good housekeeping practices, which include keeping lids on containers/totes that store the ink product and the use of low VOC materials, when possible.	0.49	LB/H
6/27/2023	WEYERHAEUSER NR CO - DODSON DIVISION	LA-0393	Shavings Bin and Load-out Fugitives	13.9	T/H	Good housekeeping practices, which include ensuring that the covered conveyor and enclosed bin are intact and operated per manufacturer's recommendations.	1.67	LB/H
10/31/2017	FIBER INDUSTRIES LLC	SC-0182	Fugitives	0		Use of leakless types of components to replace individual chronically leaking components where possible and the use an LDAR program which includes the applicable provisions of 40 CFR 63, Subpart JJJ.	0	
5/4/2018	NUCOR STEEL - BERKELEY	SC-0183	Pickle Line Equipment (pickle line no. 3 fugitives)	0		Proper Operation and Maintenance	0	
6/22/2015	INGLESIDE TERMINAL	TX-0752	Fugitives	110	MBBL/YR	28 VHP: Quarterly instrumental monitoring using a method 21 gas analyzer for all valves, pump seals, compressor seals, and agitator seals with a leak definition of 500 ppmv for valves and 2,000 ppmv for pump, compressor and agitator seals. Leaking components must be repaired within 15 days of detection of the leak.	5.4	T/YR
8/6/2015	CORPUS CHRISTI TERMINAL	TX-0760	Fugitives	0		Fugitive Leak Detection and Repair (LDAR) per the 28 MID Monitoring program that requires quarterly monitoring of all components with a leak definition of 500 ppmv and directed maintenance.	500	PPMV
11/12/2015	BISHOP FACILITY	TX-0774	Fugitives	0		28VHP fugitive monitoring program	4.61	TPY
2/5/2016	LBC HOUSTON BAYPORT TERMINAL	TX-0783	Fugitives	0		An enhanced leak detection and repair program (28LAER) that requires quarterly instrumental monitoring of all fugitive components (pumps, compressors, valves, connectors, seals, etc.) with directed maintenance.	500	PPMV
6/8/2016	BEAUMONT TERMINAL	TX-0799	Fugitives	0		Uncontrolled VOC fugitive emissions are estimated to be greater than 25 tpy. Component fugitive emissions are calculated using component counts and the SOCMI without ethylene emission factors. Phillips 66 employs the 28VHP inspection and 28CNTQ monitoring program	33.18	T/YR
6/22/2016	CORPUS CRUDE OIL TERMINAL	TX-0800	Fugitives	0		Uncontrolled VOC fugitive emissions are estimated to be less than 10 TPY. Fugitive components are monitored and minimized via an audio, olfactory, and visual (AVO) inspection once every four hours.	0.41	T/YR
7/12/2016	PL PROPYLENE HOUSTON OLEFINS PLANT	TX-0803	Equipment Leak Fugitives	0		LDAR (TCEQ 28LAER)	11.58	LB/H
7/15/2016	ADN UNIT	TX-0804	Equipment Leak Fugitives	0		LDAR program (TCEQ 28VHP)	5.41	LB/H
9/2/2016	HOUSTON FUEL OIL TERMINAL	TX-0808	Fugitives at Marine Loading	0		Monitoring under 28LAER (Lowest Available Emission Rate) Leak Detection and Repair program.	0.04	T/YR
11/22/2016	ODESSA PETROCHEMICAL PLANT	TX-0813	FUGITIVES	0		Quarterly instrumental monitoring of accessible pumps, compressors and valves in vapor or light liquid service, with leak definitions of 500 ppmv (valves) and 2,000 ppmv (pump and compressor seals). Upon detection of a leak, a first attempt to repair must be made within 5 days, and repairs must be completed within 15 days.	88.52	T/YR
1/17/2017	PORT ARTHUR ETHANE SIDE CRACKER	TX-0815	FUGITIVES	0		28VHP LDAR Program	17.2	T/YR
4/26/2017	FUEL OIL TERMINAL	TX-0818	FUGITIVES MARINE LOADING	0		Monitoring under 28LAER (Lowest Available Emission Rate) Leak Detection and Repair program.	0.16	T/YR
6/7/2017	LYONDELL CHEMICAL BAYPORT CHOATE PLANT	TX-0823	FUGITIVES	0		28 LAER	4.36	T/YR
7/14/2017	PASADENA TERMINAL	TX-0825	Uncaptured Marine Loading Fugitives From Ships	0		A minimum of three vessels per year for five years will undergo VOC collection efficiency testing to ensure compliance with 99.89% loading vapor collection efficiency of inerted ocean-going marine vessels	23.66	T/YR
5/11/2018	CHOCOLATE BAYOU	TX-0836	FUGITIVES	0		28LAER LDAR	1.4	TON/YR
7/12/2018	INVISTA S.A.R.L. VICTORIA PLANT	TX-0837	FUGITIVES	0		28VHP LDAR	202.3	TON/YR
10/31/2018	CORPUS CHRISTI TERMINAL	TX-0840	FUGITIVES	0		Fugitive Leak Detection and Repair (LDAR) per the 28 MID Monitoring program that requires quarterly monitoring of all components with a leak definition of 500 ppmv and directed maintenance.	0	
6/30/2018	VICTORIA PLANT	TX-0843	FUGITIVES	0		28VHP	203	T/YR
10/16/2018	MONT BELVIEU	TX-0849	FUGITIVES	0		28 VHP LAER	0	
7/15/2018	CORPUS CHRISTI TERMINAL	TX-0850	FUGITIVES	0		28 MID	0	
12/17/2018	RIO BRAVO PIPELINE FACILITY	TX-0851	FUGITIVES	0		28VHP	0	
3/13/2019	BUCKEYE SOUTH TEXAS GATEWAY TERMINAL	TX-0855	Fugitives	0		28 VHP, 28PI LDAR	0	
8/29/2019	BUCKEYE TEXAS PROCESSING CORPUS CHRISTI FACILITY	TX-0861	FUGITIVES	0		28VHP LDAR	0	
9/27/2019	BUCKEYE TEXAS HUB	TX-0862	Fugitives	0		28 VHP & 28CNTA LDAR	0	
9/3/2019	POLYETHYLENE 7 FACILITY	TX-0863	FUGITIVES	0		28 MID	0	
9/9/2019	EQUISTAR CHEMICALS CHANNELVIEW COMPLEX	TX-0865	FUGITIVES	0		28LAER, 28PI LDAR	0	
1/31/2020	PORT ARTHUR REFINERY	TX-0871	Fugitives	0		28VHP leak detection and repair (LDAR)	0	
10/31/2019	CONDENSATE SPLITTER FACILITY	TX-0872	Fugitives (Routine)	0		28VHP. Leak-less connectors.	15.63	LB/H
2/4/2020	PORT ARTHUR REFINERY	TX-0873	FUGITIVES	0		28 MID, 28 AVO and OGI fugitive programs. Authorized for infrared camera (28MID+).	0	
2/4/2020	PORT ARTHUR REFINERY	TX-0874	FUGITIVES	0		28MID LDAR and 28CNTQ.	0	
2/6/2020	PORT ARTHUR ETHANE CRACKER UNIT	TX-0876	FUGITIVES	0		TCEQ 28VHP and 28CNTQ leak detection and repair (LDAR) programs	500	PPMV
1/8/2020	SWEENY REFINERY	TX-0877	FUGITIVES	0		28 MID, 28CNTQ, and 28 PI programs. 28 MID: 97% control efficiencies for valves in gas/vapor and light liquid, 93% control efficiency for pumps light liquids and 30% for heavy liquid, 95% for compressors, 97% for relief valves. 28CNTQ: 97% control efficiencies for flanges/connectors in gas/vapor and light liquid and 30% for heavy liquid. 28PI: 30% control efficiencies for valves all phases, pumps all phases, flanges/connectors all phases, compressors, and relieve valves.	0	

RBLC Entries for Volatile Organic Compounds Control from Fugitives

Date	Facility Name	RBLC ID	PROCESS NAME	THROUGHPUT	THROUGHPUT UNIT	Control Method	Limit No. 1	Unit
9/15/2022	LNG EXPORT TERMINAL	TX-0878	FUGITIVES	0		28 VHP	0	
2/19/2020	MOTIVA PORT ARTHUR TERMINAL	TX-0879	FUGITIVES	0		28PET leak detection and repair program. Monthly Audio/Visual/Olfactory (AVO) inspection requirements	0	
2/19/2020	MOTIVA PORT ARTHUR TERMINAL	TX-0879	PROCESS FUGITIVES	0		28VHP leak detection and repair program. 97% credit for valves, 85% for pumps and compressors.	0	
1/24/2020	PROPANE DEHYDROGENATION (PDH) UNIT	TX-0884	FUGITIVES	0		28 LAER	0	
3/31/2020	MONT BELVIEU NGL FRACTIONATION UNIT	TX-0886	EQUIPMENT LEAK FUGITIVES	0		28 LAER leak detection and repair (LDAR) program	0	
4/7/2020	MIDLAND PLAINS MARKETING TERMINAL	TX-0887	Fugitives	0		The site-wide fugitive emissions are less than 10 tpy uncontrolled VOC emissions. LADR program and emission reduction credit is not applied.	0	
7/13/2020	NEDERLAND TERMINAL	TX-0892	fugitives	0		28-VHP LDAR fugitive	0	
10/30/2020	CHEVRON PHILLIPS CHEMICAL SWEENY COMPLEX	TX-0894	Unit 81 Fugitives (EPN FUG-02)	0		Piping components at the Sweeny site are currently monitored under the stringent 28LAER LDAR program. The proposed piping components in this amendment will be monitored using the 28LAER program. Valves in heavy liquid service will use the language in the 28LAER LDAR program that requires AVO inspection.	0	
3/5/2021	LBC HOUSTON BAYPORT TERMINAL	TX-0899	FUGITIVES	0		Fugitive components will be monitored under the 28LAER program. This control meets LAER	0	
9/9/2020	MOTIVA POLYETHYLENE MANUFACTURING COMPLEX	TX-0904	FUGITIVES	0		TCEQ 28VHP and 28CNTQ leak detection and repair (LDAR) programs	0	
10/30/2020	PORT ARTHUR REFINERY	TX-0906	FUGITIVES	0		TCEQ 28VHP (LDAR) program	0	
8/27/2021	NEWMAN POWER STATION	TX-0908	Fugitives	0		weekly AVO	0	
12/8/2020	POLYETHYLENE UNIT 1792	TX-0909	Fugitives	0		28VHP	0	
12/11/2020	POLYETHYLENE UNIT 1796	TX-0910	FUGITIVES	0		28 VHP	0	
2/5/2021	MONT BELVIEU FRACTIONATOR	TX-0912	FUGITIVES	0		Implement a 28LAER Leak Detection and Repair program including monitoring for leaks using Method 21.	0	
6/13/2022	HOUSTON PLANT - 22052	TX-0921	FUGITIVES	0		28LAER	0	
6/13/2022	HOUSTON PLANT - 46307	TX-0922	FUGITIVES	0		28 LAER	0	
6/13/2022	HOUSTON PLANT - 19806	TX-0924	FUGITIVES	0		28 LAER	0	
10/15/2021	FORMOSA POINT COMFORT PLANT	TX-0929	FUGITIVES	0		modified 28VHP LDAR program in VOC service. A more stringent 500ppmv leak definition of 28MID is used. Annual 28CNTA monitoring is voluntarily used.	0	
12/16/2021	ROEHM AMERICA BAY CITY SITE	TX-0931	Fugitives	0		TCEQ 28VHP/28CNTQ (LDAR) Program	0	
3/29/2022	BILL GREEHEY REFINERY EAST PLANT	TX-0936	REFINERY FUGITIVES	0	MBF/YR	28VHP, 28AVO	0	
3/13/2023	ORANGE COUNTY ADVANCED POWER STATION	TX-0939	NATURAL GAS FUGITIVES	0		28AVO LDAR program	0	
3/13/2023	ORANGE COUNTY ADVANCED POWER STATION	TX-0939	AMMONIA FUGITIVES	0		28AVO LDAR program	0	
3/13/2023	ORANGE COUNTY ADVANCED POWER STATION	TX-0939	DIESEL FUGITIVES	0		28PI LDAR	0	
9/13/2022	DIAMOND GREEN DIESEL PORT ARTHUR FACILITY	TX-0942	FUGITIVES	0		TCEQ 28VHP and 28PI (for ultra-heavy liquids with low vp) leak detection and repair (LDAR) programs	0	
4/6/2023	FORMOSA POINT COMFORT PLANT OL3	TX-0945	FUGITIVES	0		28 VHP LDAR	0	
3/14/2023	INEOS OLIGOMERS CHOCOLATE BAYOU	TX-0955	EQUIPMENT FUGITIVES	0		TCEQ 28LAER leak detection and repair (LDAR) quarterly instrument monitoring program with weekly AVO walk through checks and instrument directed repair	0	
6/8/2023	ENTERPRISE MONT BELVIEU COMPLEX	TX-0956	FUGITIVES	0		VOC fugitives will be controlled via 28LAER; In addition, EP will utilize leak free pumps and compressors	0	
12/29/2023	ORANGE PLANT	TX-0965	FUGITIVES	0		28VHP & 28CNTA LDAR	0	
11/14/2023	EQUSTAR LAPORTE COMPLEX	TX-0966	FUGITIVES	0		28LAER LDAR program	0	
2/5/2024	QUAIL RUN CARBON CAPTURE PLANT	TX-0967	EQUIPMENT FUGITIVES	0		28M leak detection and repair (LDAR) program (voluntary). The total VOC emission rate from equipment leak fugitives from all fugitives associated with the proposed project combined before taking LDAR credits is approximately 9.38 tpy,,which does not require LDAR control per TCEQ Tier 1 BACT. However, the applicant will voluntarily implement the 28M LDAR program.	0	

RBLC Entries for GHG Control from Fugitives

Date	Facility Name	RBLC ID	PROCESS NAME	THROUGHPUT	THROUGHPUT UNIT	Control Method	Limit No. 1	Unit
2/14/2019	NUCOR STEEL FLORIDA FACILITY	FL-0368	Meltshop Baghouse & Fugitives	450000	tons of steel per year	Scrap preheating & an energy monitoring and management system	438	LB/TON OF STEEL
9/21/2020	WESTLAKE CHEMICAL OPCO, LP	KY-0113	EU# 025A (EPN FUG-ETH-VVa) Ethylene Plant Fugitives	0		The equipment leak fugitives involve process piping components (pumps, valves, connectors, etc.) to distribute the liquid and gaseous materials among process units during the manufacture of products. Emissions from those components are mostly related to leakage from seals, connection interfaces, valve stems, etc. Control method is the same as that for VOC BACT. Leak is defined as reading of 500ppmv; BACT includes: proper labeling and following the requirements in 40 CFR 60, Subpart VVa and following good work practices including: 1.Construction of new and reworked piping, valves, pump systems, and compressor systems shall conform to applicable American National Standards Institute (ANSI), American Petroleum Institute (API), American Society of Mechanical Engineers (ASME), or equivalent codes based on the material. 2. New and reworked buried connectors shall be welded. 3. To the extent that good engineering practice will permit, new and reworked valves and piping connections shall be reasonably accessible for leak checking during plant operation. 4. Damaged, leaking, or severely rusted valves, connectors, compressor seals, agitator seals, and pump seals found by visual inspection to be leaking (e.g., process fluids) shall be tagged and replaced or repaired. All leaking components that cannot be repaired until a scheduled shutdown shall be identified for such repair by tagging. 5. Open-ended lines are required to be equipped with a cap, plug, blind flange, or second valve. 6. New relief valves are required to vent to a control device for any potential releases and as a result, any fugitive emissions are reduced. Exceptions may be made if venting relief valves to control will result in a safety concern, but this does not exempt the company from controls such as equipping the valve with a rupture disk and pressure-sensing device.	0	
9/21/2020	WESTLAKE CHEMICAL OPCO, LP	KY-0113	EU# 025B (EPN FUG-ETH) Ethylene Plant Fugitives	0		Control method is the same as that for VOC BACT. Leak is defined as reading of 500ppmv; BACT includes: proper labeling and following the requirements in 40 CFR 60, Subpart VVa and following good work practices including: 1.Construction of new and reworked piping, valves, pump systems, and compressor systems shall conform to applicable American National Standards Institute (ANSI), American Petroleum Institute (API), American Society of Mechanical Engineers (ASME), or equivalent codes based on the material. 2. New and reworked buried connectors shall be welded. 3. To the extent that good engineering practice will permit, new and reworked valves and piping connections shall be reasonably accessible for leak checking during plant operation. 4. Damaged, leaking, or severely rusted valves, connectors, compressor seals, agitator seals, and pump seals found by visual inspection to be leaking (e.g., process fluids) shall be tagged and replaced or repaired. All leaking components that cannot be repaired until a scheduled shutdown shall be identified for such repair by tagging. 5. Open-ended lines are required to be equipped with a cap, plug, blind flange, or second valve. 6. New relief valves are required to vent to a control device for any potential releases and as a result, any fugitive emissions are reduced. Exceptions may be made if venting relief valves to control will result in a safety concern, but this does not exempt the company from controls such as equipping the valve with a rupture disk and pressure-sensing device.	0	

RBLC Entries for GHG Control from Fugitives

Date	Facility Name	RBLC ID	PROCESS NAME	THROUGHPUT	THROUGHPUT UNIT	Control Method	Limit No. 1	Unit
9/21/2020	WESTLAKE CHEMICAL OPCO, LP	KY-0113	EU# 025 (EPN FUG-ETH-YY) Ethylene Plant Fugitives	0		The equipment leak fugitives involve process piping components (pumps, valves, connectors, etc.) to distribute the liquid and gaseous materials among process units during the manufacture of products. Emissions from those components are mostly related to leakage from seals, connection interfaces, valve stems, etc. Control method is the same as that for VOC BACT. Leak is defined as reading of 500ppmv; BACT includes: proper labeling and following the requirements in 40 CFR 63, Subpart YY and Subpart UU and following good work practices including: 1.Construction of new and reworked piping, valves, pump systems, and compressor systems shall conform to applicable American National Standards Institute (ANSI), American Petroleum Institute (API), American Society of Mechanical Engineers (ASME), or equivalent codes based on the material. 2. New and reworked buried connectors shall be welded. 3. To the extent that good engineering practice will permit, new and reworked valves and piping connections shall be reasonably accessible for leak checking during plant operation. 4. Damaged, leaking, or severely rusted valves, connectors, compressor seals, agitator seals, and pump seals found by visual inspection to be leaking (e.g., process fluids) shall be tagged and replaced or repaired. All leaking components that cannot be repaired until a scheduled shutdown shall be identified for such repair by tagging. 5. Open-ended lines are required to be equipped with a cap, plug, blind flange, or second valve. 6. New relief valves are required to vent to a control device for any potential releases and as a result, any fugitive emissions are reduced. Exceptions may be made if venting relief valves to control will result in a safety concern, but this does not exempt the company from controls such as equipping the valve with a rupture disk and pressure-sensing device.	0	
11/13/2020	WESTLAKE VINYLS, INC.- VINYLS PLANT	KY-0114	FUG-MON-NG Monomer Plant Fugitives in Natural Gas service	0		1. LDAR program with instrument sensors consistent with 40 CFR 63, Subpart H requirements. 2. Leak is defined as a reading of 500 ppmv 3. Good piping design and work practices. 4. Installation of high quality/compatible components to provide long term control. Good work practices include: 1. Construction of new and reworked piping, valves, pump systems, and compressor systems shall conform to applicable American National Standards Institute (ANSI), American Petroleum Institute (API), American Society of Mechanical Engineers (ASME), or equivalent codes based on the material. 2. New and reworked buried connectors shall be welded. 3. To the extent that good engineering practice will permit, new and reworked valves and piping connections shall be reasonably accessible for leak checking during plant operation. 4. Damaged, leaking, or severely rusted valves, connectors, compressor seals, agitator seals, and pump seals found by visual inspection to be leaking (e.g., process fluids) shall be tagged and replaced or repaired. All leaking components that cannot be repaired until a scheduled shutdown shall be identified for such repair by tagging. 5. Open-ended lines are required to be equipped with a cap, plug, blind flange, or second valve. 6. New relief valves are required to vent to a control device for any potential releases and as a result, any fugitive emissions are reduced. Exceptions may be made if venting relief valves to control will result in a safety concern, but this does not exempt the company from controls such as equipping the valve with a rupture disk and pressure-sensing device.	0	
6/30/2016	LAKE CHARLES METHANOL FACILITY	LA-0305	Fugitives	0			0	
3/21/2016	MAGNOLIA LNG FACILITY	LA-0307	fugitives	0		good piping design/maintenance/work practices	0	
7/10/2018	DRIFTWOOD LNG FACILITY	LA-0349	Fugitives	0		Leak Management Program an Good Work Practices	0	
9/3/2020	LAKE CHARLES LNG EXPORT TERMINAL	LA-0383	Fugitives (FUG0001)	0		Proper piping design and LDAR	0	
6/3/2022	MAGNOLIA POWER GENERATING STATION UNIT 1	LA-0391	Fugitives	0		Proper piping design and installation.	104	T/YR
5/4/2018	NUCOR STEEL - BERKELEY	SC-0183	Pickle Line Equipment (pickle line no. 3 fugitives)	0		Energy Efficient Design	0	
11/12/2015	BISHOP FACILITY	TX-0774	Fugitives	0		28VHP fugitive monitoring program on lines containing >10% methane	344	TPY
6/24/2016	PL PROPYLENE HOUSTON OLEFINS PLANT	TX-0801	Fugitives	0		LDAR 28LAER	0	
6/30/2017	JACKSON COUNTY GENERATING FACILITY	TX-0824	Natural Gas Fugitives	0		weekly checks for leaks using audio, visual, and olfactory (AVO) sensing for natural gas leaks	693.3	T/YR
1/9/2018	EXXONMOBIL BEAUMONT REFINERY	TX-0832	FUGITIVES	0		AVO	758	TON/YR
6/13/2018	BEAUMONT CHEMICAL PLANT	TX-0838	fugitives	0		28MID LDAR	0	
6/13/2018	BEAUMONT CHEMICAL PLANT	TX-0838	fugitives	0		28MID LDAR	0	
8/24/2018	ARKEMA BEAUMONT PLANT	TX-0845	FUGITIVES	0		AVO	0	
12/17/2018	RIO BRAVO PIPELINE FACILITY	TX-0851	FUGITIVES	0		28 VHP	0	

RBLC Entries for GHG Control from Fugitives

Date	Facility Name	RBLC ID	PROCESS NAME	THROUGHPUT	THROUGHPUT UNIT	Control Method	Limit No. 1	Unit
9/9/2019	EQUISTAR CHEMICALS CHANNELVIEW COMPLEX	TX-0865	FUGITIVES	0		28LAER & 28PI LDAR	0	
2/6/2020	PORT ARTHUR ETHANE CRACKER UNIT	TX-0876	FUGITIVES	0		TCEQ 28VHP and 28CNTQ leak detection and repair (LDAR) programs	0	
9/15/2022	LNG EXPORT TERMINAL	TX-0878	FUGITIVES	0		28 VHP	0	
1/10/2020	EXXONMOBIL BEAUMONT REFINERY	TX-0881	FUGITIVES	0		Compliance with Refinery MACT fugitives and Texas 28VHP LDAR program.	0	
1/24/2020	PROPANE DEHYDROGENATION (PDH) UNIT	TX-0884	FUGITIVES	0		28LAER; In addition, utilize leak free pumps and compressors.	0	
9/9/2020	MOTIVA POLYETHYLENE MANUFACTURING COMPLEX	TX-0904	FUGITIVES	0		TCEQ 28VHP and 28CNTQ leak detection and repair (LDAR) programs	0	
10/30/2020	PORT ARTHUR REFINERY	TX-0906	FUGITIVES	0		TCEQ 28VHP (LDAR) program	0	
8/27/2021	NEWMAN POWER STATION	TX-0908	Fugitives	0		weekly AVO	0	
3/13/2023	ORANGE COUNTY ADVANCED POWER STATION	TX-0939	NATURAL GAS FUGITIVES	0		28AVO LDAR program	0	
4/6/2023	FORMOSA POINT COMFORT PLANT OL3	TX-0945	FUGITIVES	0		28 VHP	0	
6/8/2023	ENTERPRISE MONT BELVIEU COMPLEX	TX-0956	FUGITIVES	0		VOC fugitives will be controlled via 28LAER; In addition, EP will utilize leak free pumps and compressors	0	
10/5/2023	NEDERLAND FACILITY	TX-0964	EQUIPMENT FUGITIVES	0		Good management practice and personal portable CO monitors for leaking detection	0	
5/3/2024	SEADRIFT FACILITY	TX-0973	FUGITIVES	0		28MID leak detection and repair (LDAR) program (voluntary)	0	

Appendix E
PSD Modeling Protocol and EMEW

PSD Modeling Protocol and Initial Modeling Impacts Summary

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August 2025

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Section 1
Project Identification Information

This document presents the proposed air dispersion modeling for evaluating the air quality impacts resulting from the construction and operation of a new natural gas-fired power plant on an approximately 8,400-acre site in Pecos County, Texas.

TRC Environmental Corporation (TRC) has prepared this protocol following methodologies and procedures of the Texas Commission on Environmental Quality (TCEQ) and United States Environmental Protection Agency (USEPA).

To simplify the review of this protocol, it has been written to closely follow the order of the items listed in the Reporting Requirements (Appendix P) of the TCEQ's *Air Quality Modeling Guidelines, APDG 6232, June 2024* (AQMG).

Applicant:	Pacifico GW LLC
Facility:	GW Ranch Energy Center
Regulated Entity Number:	TBD
Permit Application Numbers:	TBD
Nearest City:	Fort Stockton
County:	Pecos County
Applicant's Modeler:	TRC Environmental Corporation

Section 2
Project Overview

Pacifico GW LLC (Pacifico) is proposing to construct and operate a new natural gas-fired simple cycle power plant on an approximately 8,400-acre site in Pecos County, Texas. The new power plant (the Project) will operate under the name GW Ranch Energy Center (GW Ranch). GW Ranch will provide electricity to an on-site Artificial Intelligence (AI)-focused data center campus and will not be capable of selling electricity to or receiving power from the local utility power distribution system.

The Project will consist of the installation of fourteen (14) large-frame (H-Class, HL-Class, or J-Class) combustion turbines, twenty-one (21) Siemens Energy SGT-800 combustion turbines, and ancillary equipment. The Project's nominal generation capacity will be approximately 5,000 megawatts (MW). The turbines will be fired exclusively with pipeline quality natural gas.

An air quality analysis (AQA) will be conducted to demonstrate that conservatively calculated emissions associated with the Project will not cause or contribute to an exceedance of the National Ambient Air Quality Standards (NAAQS), Prevention of Significant Deterioration (PSD) increment consumption limits, or TCEQ property line standards. A state health effects analysis will be performed to demonstrate that impacts from the Project will not cause or contribute to adverse health effects, odor nuisance potentials, or effects with respect to vegetation or corrosion. The TCEQ state property line standard and state health effects analyses are included in the TCEQ Electronic Modeling Evaluation Workbook (EMEW) provided as Attachment D and are not further discussed in this PSD protocol. Additionally, impacts from the Project will not cause or contribute to adverse effects with respect to growth, visibility, and soils.

2.1 Type of Permit Review

Pecos County is designated as an attainment or unclassifiable area with respect to the NAAQS for all criteria pollutants. The Project will result in emissions of nitrogen oxides (NO_X), volatile organic compounds (VOC), carbon monoxide (CO), particulate matter (PM), particulate matter with diameters of 10 microns or less (PM_{10}), particulate matter with diameters of 2.5 microns or less ($PM_{2.5}$), sulfur dioxide (SO_2), sulfuric acid (H_2SO_4), and ammonia (NH_3). This Project will trigger PSD review for Ozone through pre-cursor VOC and NO_X emissions as well as trigger PSD review for CO, PM_{10}, $PM_{2.5}$, NO_X, and SO_2. Table 2-1 below provides a summary of PSD applicability for each PSD-regulated pollutant.

Table 2-1 Prevention of Significant Deterioration Regulatory Threshold Evaluation

Pollutant	Potential to Emit (tpy)	PSD Major Source Threshold (tpy)	Exceeds Threshold?	PSD SER (tpy)	Exceeds Threshold?	PSD Review Applies?
NO_X	2,830.28	250	Yes			Yes
CO	5,955.12	250	Yes			Yes
SO_2	397.70	250	Yes			Yes
PM	998.82	250	Yes			Yes
PM_{10}	995.03	250	Yes			Yes
$PM_{2.5}$	991.26	250	Yes			Yes
VOC	837.99	250	Yes			Yes
H_2SO_4	60.66	250	No	7	Yes	Yes

2.2 Air Constituents Evaluated

As discussed in Section 2.1, the Project will trigger PSD review for NO_X, CO, SO_2, PM_{10}, and $PM_{2.5}$. To satisfy PSD review requirements, these pollutants were evaluated for comparison with the NAAQS and PSD increment consumption limits.

The TCEQ has implemented a state-specific procedure for evaluation of ground-level concentrations of SO_2, hydrogen sulfide (H_2S), and H_2SO_4. Additionally, TCEQ requires a Modeling and Effects Review Applicability (MERA) assessment of air toxics for which Effects Screening Levels (ESLs) have been established. These analyses are discussed in further detail in Section 14. An electronic copy of the TCEQ EMEW summarizing the inputs and results of the TCEQ state modeling conducted for the Project is provided in Attachment D.

Section 3
Area Map

The Project will be situated on an approximately 8,400-acre site in Pecos County, Texas. The Project involves the development of approximately 1,500 acres devoted to the power generation facilities and data center campus. The site is located on Highway 18, approximately 17 miles north of Fort Stockton, in Pecos County.

The enclosed Area Map, **Figure 1-1** in the permit application, illustrates the location of the property and surrounding area. The area map includes a true north arrow, accurate scale, the entire plant property, the location of the property relative to prominent geographical features, and significant landmarks. Figure 3-1 includes a circle of 3,000-ft radius and a circle of one-mile radius from the property boundary. The area map includes current aerial photography to depict the land use surrounding GW Ranch.

As shown, there are no schools located within a 3,000-ft radius from the site.

There are no PSD Class I areas within 100 kilometers of the site. The nearest Class I areas are Big Bend National Park, approximately 160 kilometers to the south; and Carlsbad Caverns National Park and Guadalupe Mountains National Park, both approximately 180 km to the northwest. A figure illustrating the location of all nearby Class I areas will be provided in the final AQA.

Section 4
Plot Plan

The enclosed Plot Plans, **Figures 1-2, 1-2A, 1-2B, 1-2C,** and **1-2D** in the permit application, show the scale, north direction, two benchmark locations, all property lines, and all emission points associated with the facilities to be permitted. Fencing is in place along all property boundaries.

A detailed modeling plot plan showing the names and locations of all emission points and structures relative to the GW Ranch's property boundary will be provided with the final AQA.

Section 5
Air Quality Monitoring Data

Estimates for the current ambient air background concentrations at the Project site may be required for two distinct and separate purposes: (1) to demonstrate that the ambient air concentrations of PSD-significant pollutants are currently in compliance with the NAAQS and (2) for use in a full impact NAAQS modeling analysis.

5.1 Available Background Concentrations

Based on a review of the United States Environmental Protection Agency's (USEPA) AirData website, Pacifico proposes using data collected at the monitoring stations listed in Table 5-1 for use in the NAAQS compliance demonstrations.

Table 5-1 Proposed Ambient Air Background Monitors and Data

Pollutant	Monitor Name and Monitor ID	County	Averaging Period	Background Concentration		Form
				(ppb)	($\mu g/m^3$)	
NO_2	Calaveras Lake 48-029-0059	Bexar	1-hour	34	63.92	3-Year Average of 98th Percentiles of the Daily Maximums - 2022-2024
			Annual	5	9.40	1-Year Average of 1st Highs 2024
PM_{10}	Earhart 48-113-0061	Dallas	24-hour		68	3-Year Max of 2nd Highs 2022-2024
$PM_{2.5}$	Odessa Gonzales 48-135-1014	Ector	24-hour		18.3	3-Year Average of 98th Percentiles of the Daily Maximums - 2022-2024
			Annual		7.2	3-Year Average of 1st Highs 2022-2024
O_3	Ivanhoe 48-141-0029	El Paso	8-hour	64 ppb		3-Year Average of 4th Highs 2022-2024

The appropriateness of using data from these monitoring stations to establish representative background concentrations is discussed in Sections 5.2 and 5.3. Guidance from the TCEQ's *Air Quality Modeling Guidelines* (AQMG) was followed in selecting the form of the monitored concentration for each pollutant and averaging period. The data collected from these monitors meets USEPA requirements for completeness.

5.2 Representativeness of the Selected Monitoring Stations

Following guidance contained in TCEQ's AQMG, TCEQ's Background Concentration Determination for Use in NAAQS Analyses, September 2, 1998, and USEPA's Ambient Monitoring Guidelines for Prevention of Significant Deterioration (PSD), USEPA-450/4-87-007, May 1987 Pacifico concludes, as described below, that the air quality monitoring data used to establish background concentrations is conservatively representative of the area around the Project.

TCEQ's 2023 Point Source Emission Inventory (PSEI) data was used to compare emissions within 15 km of the Project and emissions within 10 km of the selected monitors. In addition, EPA's 2020 National Emissions Inventory (NEI) data was used to compare county-wide emissions for the Project and the selected monitors.

There are no NO_2 monitors in Pecos County or any of the adjacent counties. Pacifico proposes to use data from the Calaveras Lake monitor (AQS ID 48-029-0059) in Bexar County as a representative background. A comparison of TCEQ's 2023 PSEI data shows 21.27 tpy NO_X within 15 km of the Project and 5,764.50 tpy NOx within 10 km of the Calaveras Lake monitor. In addition, a comparison of EPA's 2020 NEI data shows 5,351.81 tpy NO_X for Pecos County and 23,663.08 tpy NO_X for Bexar County. Additionally, the population (and consequent automobile traffic) is much larger in the monitor location as compared to the Project site. Lastly, the proposed monitor location shares similar topography as the Project site, which is relatively flat, and is not located in a coastal area. For these reasons, Pacifico believes that the use of the Calaveras Lake monitor as a representative and conservative background for NO_2 is appropriate.

There are no PM_{10} monitors in Pecos County or any of the adjacent counties. Pacifico proposes to use data from the Earhart monitor (AQS ID 48-113-0061) in Dallas County as a conservatively representative background. A comparison of TCEQ's 2023 PSEI data shows 1.49 tpy PM_{10} within 15 km of the Project and 179.32 tpy PM_{10} within 10 km of the Earhart monitor. In addition, a comparison of EPA's 2020 NEI data shows 3,069.20 tpy PM_{10} for Pecos County and 28,221.48 tpy PM_{10} for Dallas County. Additionally, the population (and consequent automobile traffic) is much larger in the Dallas County monitor location as compared to the Project site. Lastly, the Earhart monitor location shares similar topography as the Project site, which is relatively flat, and is not located in a coastal area. For these reasons, Pacifico believes that the use of the Earhart monitor to provide representative and conservative background data for PM_{10} is appropriate.

There are no $PM_{2.5}$ monitors in Pecos County or any of the adjacent counties. Pacifico proposes to use data from the Odessa Gonzales monitor (AQS ID 48-135-1014) in Ector County as a

conservatively representative background. A comparison of TCEQ's 2023 PSEI data shows 1.49 tpy $PM_{2.5}$ within 15 km of the Project and 144.63 tpy $PM_{2.5}$ within 10 km of the Odessa Gonzales monitor. In addition, a comparison of EPA's 2020 NEI data shows 831.33 tpy $PM_{2.5}$ for Pecos County and 888.93 tpy $PM_{2.5}$ for Ector County. Additionally, the population (and consequent automobile traffic) is much larger in the Ector County monitor location as compared to the Project site. Lastly, the Odessa Gonzales monitor location shares similar topography as the Project site, which is relatively flat, and is not located in a coastal area. For these reasons, Pacifico believes that the use of the Odessa Gonzales monitor to provide representative and conservative background data for $PM_{2.5}$ is appropriate.

There are no O_3 monitors in Pecos County or any of the adjacent counties. Pacifico proposes to use data from the Ivanhoe monitor (AQS ID 48-141-0029) in El Paso County as a conservatively representative background. A comparison of TCEQ's 2023 PSEI data shows 21.27 tpy NO_X and 16.38 tpy VOC within 15 km of the Project and 643.07 tpy NO_X and 575.09 tpy VOC within 10 km of the Ivanhoe monitor. In addition, a comparison of EPA's 2020 NEI data shows 5,351.81 tpy NO_X and 35,429.84 tpy VOC for Pecos County and 12,648.33 tpy NO_X and 13,713.66 tpy VOC for El Paso County. Additionally, the population (and consequent automobile traffic) is much larger in the El Paso County monitor location as compared to the Project site. Lastly, the Ivanhoe monitor location shares similar topography as the Project site, which is relatively flat, and is not located in a coastal area. For these reasons, Pacifico believes that the use of the Ivanhoe monitor to provide representative and conservative background data for O_3 is appropriate.

Tables summarizing the PSEI data calculations as well as a map showing the locations of the proposed ambient air monitoring sites will be provided in the final AQA.

Additionally, as a conservative measure, a search for recently permitted sources that may not necessarily be reflected in the background monitoring was conducted. The search concluded that all recently permitted sources did not need to be included due to the distance from the Project or other reasons. The final AQA will include the recently permitted search analysis files.

5.3 PSD Ambient Monitoring Requirement

PSD review may require project permit applicants to conduct pre-construction ambient monitoring to characterize existing ambient air quality. However, if dispersion model predicted impacts are less than USEPA's Significant Monitoring Concentrations (SMCs), as shown in Table 5-2, preconstruction monitoring would be waived. The Project will emit PSD-significant amounts of NO_2, CO, $PM_{2.5}$, PM_{10}, SO_2, and O_3. Data collected at the monitoring stations discussed previously herein offer conservative estimates of the background concentrations for the area. Therefore, the applicant proposes to use monitoring data in lieu of performing

preconstruction monitoring for any pollutant with preliminary impacts analysis results greater than SMC values.

Table 5-2 Significant Monitoring Concentrations

Pollutant	Averaging Period	SMC ($\mu g/m^3$)
CO	8-hour	575
NO_2	Annual	14
PM_{10}	24-hour	10
$PM_{2.5}$	24-hour	--[a]
SO_2	24-hour	13
O_3	8-hour	--[b]

Notes:
[a] Per Sierra Club vs. USEPA, the pre-construction requirement cannot be waived for $PM_{2.5}$.
[b] Ozone ambient impact analysis is required, including pre-construction monitoring, when a project proposes a net emission increase of 100 tpy or more of NOx or VOCs. The ozone impact analysis is discussed in Section 7.2.2.

The DC Circuit Court vacated the $PM_{2.5}$ SMC in its 2013 ruling (Sierra Club vs. USEPA), ruling that the USEPA could not "waive" the pre-construction monitoring requirement for $PM_{2.5}$. Subsequent USEPA guidance indicates that existing air quality monitoring data, if deemed representative, can be used to satisfy pre-construction monitoring requirements.

Section 6
Modeling Emissions Inventory

6.1 On-Property Sources

As discussed in Section 2, Pacifico has submitted a permit application to authorize a new natural gas-fired power plant. Emission sources associated with the Project include:

- Fourteen (14) large-frame combustion turbines;
- Twenty-one (21) Siemens SGT-800 combustion turbines;
- Two (2) natural gas-fired supplemental engine generators used for supplemental power generation;
- Nineteen (19) dew point heaters, operating on pipeline quality natural gas;
- Fifteen (15) diesel-fired emergency generator engines;
- Two (2) diesel-fired emergency firewater pumps;
- Seven (7) diesel storage tanks;
- Nineteen (19) hybrid Wet Surface Air Coolers (WSAC);
- Combustion lube oil recirculation systems with lube oil vents for each turbine;
- Piping component fugitive emissions from natural gas system and ammonia system piping components; and
- Maintenance activities on the turbines.

A table summarizing the Project-related emission sources and the emission rates modeled is included in Attachment A. This table also provides a cross-reference between the modeling identification numbers and the Emission Point Numbers (EPNs) listed in the NSR Workbook.

6.2 Off-Property Sources

Off-property sources with the potential to contribute to the area of significant impact were included in the modeling for those constituents and averaging periods that were over the SIL.

The off-property sources were obtained from the TCEQ by requesting a retrieval of the Air Permits Allowable Database (APAD). The APAD system is the TCEQ's representation of a complete inventory and replaced the Point Source Data Base (PSDB) in 2013. The TCEQ published a "*Fact Sheet – Air Dispersion Modeling Retrievals from the Air Permits Allowable Database (APAD),*" which states that compared to PSDB retrievals, only sources within 50 km of the

coordinates provided are included. Therefore, the APAD retrieval was used in the modeling and includes all sources that are within a 50 km radius of the Project.

The APAD sources were reviewed for completeness and accuracy. Where source parameters were missing from APAD, attempts were made to obtain actual parameters through the review of TCEQ online records (emission inventories and permit applications). Where actual data was not able to be determined, TCEQ default pseudo-point parameters were used.

Attachment B provides a combined summary of the NO_x, PM_{10}, and $PM_{2.5}$ off-property sources obtained from APAD. All revisions made to the off-property inventory have been clearly documented on a source-by-source basis.

6.3 Stack Parameter Justification

6.3.1 Good Engineering Practice Stack Height

Each source was modeled at its physical release height or at the BPIP-calculated GEP stack height, whichever is lower.

6.3.2 Stack Parameters – Project Sources

The emission release parameters for on-site sources are presented below:

Turbine Stacks

The turbine stacks (EPNs: CT-1A through CT-21A, and CT-1B through CT-14B) were modeled as point sources with exhaust parameter values (i.e., velocities, diameters, and temperatures) properly identified to calculate the buoyancy and momentum rise of their emissions. The stack parameter values were based on turbine manufacturer performance data and engineering design information, and represent the worst-case stack parameters from all scenarios and turbine make/models under consideration.

Specifically for the large-frame combustion turbine sources (EPNs: CT-1B through CT-14B), the Project is using an "envelope" approach for quantifying the worst-case emission rates and stack parameters. The approach utilizes the worst-case emission rates and worst-case stack discharge parameters across four (4) potential turbine manufacturers for the AQA, and for establishing the maximum allowable emission rates (MAER). The approach establishes an upper bound or "envelope" of potential emissions, representing the highest possible operating and emissions scenario to allow for selection of a turbine OEM in the future that meets the proposed permit emission limits and operating specifications. As such, the envelope ensures a conservative

estimate of emissions in combination with worst-case stack discharge parameters that has been shown to be limited in such a way as to protect applicable air quality standards.

Engines

The firewater pumps (EPNs: FPUMP1 and FPUMP2), emergency engines (EPNs: EGEN1 through EGEN15), and supplemental engine generators (EPNs: ENGINE-1 and ENGINE-2) were modeled as point sources with exhaust parameter values (i.e., velocities, diameters, and temperatures) properly identified to calculate the buoyancy and momentum rise of their emissions. The stack parameter values were based on engineering design information.

Heaters

The dewpoint heaters (EPNs: DPHEAT1 through DPHEAT19) were modeled as point sources with exhaust parameter values (i.e., velocities, diameters, and temperatures) properly identified to calculate the buoyancy and momentum rise of their emissions. The stack parameter values were based on engineering design information.

Fugitive Source Parameters

Fugitive emissions from the wet surface air coolers (EPNs: CO-1 through CO-19) were modeled as a pseudo-point source at the vent's approximate release height.

Fugitive emissions from the lube oil vents (EPNs: OILVENT1 through OILVENT35) were modeled as a pseudo-point source at the vent's approximate release height.

Natural gas component fugitives (EPN: NGFUG) corresponding to potential piping losses were modeled as a small 1 meter x 1 meter area source with a release height of 1 meter. This conservatively represents the footprint and release height of the fugitives.

Ammonia component fugitives (EPN: NH3FUG) correspond to potential piping losses surrounding the Selective Catalyst Reduction (SCR) units. These fugitive emissions were modeled as a small 1 meter x 1 meter area source with a release height of 1 meter. This conservatively represents the footprint and release height of the fugitives.

Proposed inherently low emitting (ILE) turbine maintenance activities (EPN: MSSFUG) that may generate fugitive emissions were modeled as a small 1 meter x 1 meter area source with a release height of 1 meter. This conservatively represents the footprint and release height of the ILE activities.

6.3.3 Turbine Startup Shutdown Scenarios

Higher emission rates have been quantified for NO_X and CO to account for turbine startup/shutdown (SU/SD). These emissions were conservatively modeled as occurring every hour of the year. All 21 SGT-800 turbines and all 14 large-frame turbines were modeled with the higher SUSD rates for 1-hour CO and 8-hour CO NAAQS analyses. Two scenarios were modeled for 1-hour NO_2 NAAQS analysis:

1. Two (2) large-frame turbines and ten (10) SGT-800 turbines modeled with SU/SD rates; all other turbines modeled with routine rates
2. Three (3) large-frame turbines modeled with SU/SD rates; all other turbines modeled with routine rates

6.3.4 Emergency Equipment Emissions

The Project includes fifteen diesel-fired emergency generators (EPNs: EGEN1 through EGEN15) and two diesel-fired firewater pumps (EPNs: FPUMP1 and FPUMP2). Emissions associated with the emergency readiness testing of these engines were modeled.

Pacifico plans to test the emergency equipment according to the manufacturer's recommended testing schedules. A typical testing schedule for emergency engines is testing each engine once per month for a period of approximately 60 minutes. The modeling included a maximum of 60 minutes of testing emissions for the following modeled averaging periods: 8-hour CO, 24-hour PM_{10}, and 24-hour $PM_{2.5}$. Specifically, 8-hour emissions equal the hourly emissions multiplied by 1/8, and 24-hour emissions equal the hourly emissions multiplied by 1/24.

The USEPA's *Additional Clarification Regarding Application of Appendix W Modeling Guidance for the 1-hour NO2 National Ambient Air Quality Standard*; March 1, 2011 states that compliance demonstrations for the 1-hour NO_2 NAAQS be based on emission scenarios that can logically be assumed to be relatively continuous or which occur frequently enough to contribute significantly to the annual distribution of daily maximum 1-hour concentrations. As such, the 1-hour NO_2 emissions associated with these intermittent sources will be modeled per USEPA guidelines, multiplying the maximum hourly emission rate by the ratio of the proposed hours per year and total available hours per year. The emission calculations include a conservative annual emissions estimate corresponding to 100 hours per year. Therefore, the modeling of 1-hour NO_2 emissions associated with these intermittent sources was conservatively modeled using the annualized emissions testing schedule.

The emissions associated with emergency equipment operating during an actual emergency were not modeled because the proposed authorization does not include such emissions.

6.3.5 NO_X-to-NO_2 Conversion

Following guidance included in the USEPA's *Guideline on Air Quality Models; Appendix W to 40 CFR Part 51; January 17, 2017*; the Tier 2 default Ambient Ratio Method 2 (ARM2) NO_X-to-NO_2 conversion was utilized within the AERMOD model. The Appendix W default minimum ambient ratio of 0.5 and the maximum ambient ratio of 0.9 was used.

6.3.6 $PM_{2.5}$ Emissions

The secondary $PM_{2.5}$ impacts were estimated using guidance from the Appendix R of the TCEQ's AQMG. This TCEQ guidance is based on the USEPA's *Guidance on the Development of Modeled Emission Rates for Precursors (MERPs) as a Tier 1 Demonstration Tool for Ozone and $PM_{2.5}$ under the PSD Permitting Program, April 30, 2019*. MERPs derived using the USEPA's photochemical modeling results for hypothetical sources located in Texas were used to estimate the air quality $PM_{2.5}$ impacts associated with Project-related emissions of NO_X and SO_2. These conservative secondary $PM_{2.5}$ impact estimates were included in the preliminary impact determination, full impact NAAQS and full impact PSD increment consumption analyses.

6.4 Scaling Factors

No additional scalars or factors were used in the modeling analyses.

Section 7
Models Proposed and Modeling Techniques

The American Meteorological Society / Environmental Protection Agency Regulatory Model (AERMOD), Version 24142, was used to perform the dispersion modeling. AERMOD is the latest generation of atmospheric dispersion models suitable for industrial sources and is the model preferred by the USEPA for such applications. To facilitate the running of AERMOD, the Providence/ORIS, LLC's "BEE-Line BEEST for Windows" graphic user interface (Version 12.13) was used.

7.1 Model Options

The following model options were used in the application of the AERMOD modeling:

- Regulatory default option was enabled.
- A medium roughness parameter was used based on the results of the analysis described in Section 8.
- Elevated terrain was used for modeling the area around the Project site.
- All Project sources were modeled at their actual release heights.
- Modeling receptors were placed to a distance that clearly identifies the area of impact. The receptor grid spacing is discussed in Section 10.

7.2 Modeling Approach – Preliminary Impact Determination

A preliminary impact determination was conducted to commence the modeling analysis. The purpose of the preliminary analysis is to determine whether proposed emissions from the Project sources may have a "significant" impact on the existing air quality. The various preliminary modeling analyses are described in the sections below.

7.2.1 Modeled Emission Rates for Precursors (MERPs) Analysis

As described in Section 6.3.6, a Tier 1 approach was used to estimate the secondary $PM_{2.5}$ impacts associated with the Project-related precursor emissions. The secondary $PM_{2.5}$ impacts were estimated using guidance from the Appendix R of the TCEQ's *AQMG*. That guidance is based on the USEPA's *Guidance on the Development of Modeled Emission Rates for Precursors (MERPs) as a Tier 1 Demonstration Tool for Ozone and $PM_{2.5}$ under the PSD Permitting Program, April 30, 2019*. MERPs derived using the USEPA's photochemical modeling results for hypothetical sources located in Texas were used to estimate the air quality secondary $PM_{2.5}$

impacts associated with Project-related emissions of NO_X and SO_2. These secondary $PM_{2.5}$ impacts were included in the preliminary impact determination, full impact NAAQS and full impact PSD increment consumption analyses.

Terry County has the lowest percentage of urban land cover in West Texas of the available counties listed in the MERP guidance (USEPA, 2019a), which is the most comparable to the rural conditions surrounding the Project. The Project includes an increase of 2,830.28 tpy NO_X emissions and 397.70 tpy SO_2 emissions. These emissions are closest to the modeled emissions for the USEPA's 3,000 tpy hypothetical source for NO_X and 500 tpy hypothetical source for SO_2. The majority of these emissions will be emitted from turbine stacks that will be 60.96-meter tall. As such, the exhaust heights of these sources are more similar to the "High" (90-meter) hypothetical source than the "Low" (10-meter) hypothetical source. Therefore, the "High" 3,000 tpy Terry County hypothetical source MERP for NO_X and "High" 500 tpy Terry County hypothetical source MERP for SO_2 maximum impact values ($\mu g/m^3$) were used for this analysis.

7.2.2 Single Source Secondary O3 Analysis

An analysis of the formation of secondary O_3 is necessary when emissions from a new major PSD source will exceed 100 tons or more of VOC and NO_X, which are the precursors to O_3. If a source triggers PSD for O_3 based on either NO_X or VOC emissions exceeding the 100 tons, then the MERP analysis must consider both NO_X and VOC emissions. An ozone impact analysis has been conducted following TCEQ Guidelines and USEPA guidance (USEPA, 2022).

Since ozone is formed from precursor emissions, it cannot be modeled using a traditional point source model such as AERMOD. As part of a recent revision to the USEPA Guideline on Air Quality Modeling (40 CFR Part 51, Appendix W), USEPA promulgated a two-tier approach for addressing single-source impacts on ozone:

- Tier 1 – The first tier involves use of appropriate and technically credible relationships between emissions and ambient impacts developed from existing modeling studies deemed sufficient for evaluating a project's impact. USEPA has developed MERPs as a Tier 1 demonstration tool for ozone.
- Tier 2 – The second tier entails a more involved case-by-case application of chemical transport modeling.

The assessment of ozone formation from the Project's precursor emissions was conducted using USEPA's Tier 1 demonstration tool for estimating single-source secondary impacts, USEPA MERPs. In TCEQ's Modeling Guidance, modeled impacts from hypothetical industrial sources located in Texas are presented for use in a MERP analysis, as obtained from USEPA's MERP guidance. Tables Q-2 and Q-3 of TCEQ's Modeling Guidance lists hypothetical MERP values

from all of the hypothetical industrial sources located in Texas. The MERP values for Source 5 (Terry) with NO_X emissions of 3,000 tpy and VOC emissions of 1,000 tpy and a higher release height were chosen as the hypothetical source, as shown in Table 7-1. Terry County has the lowest percentage of urban land cover in West Texas of the available counties (USEPA, 2019a), which is the most comparable to the conditions surrounding the Project. The Project's potential annual emissions for NO_X and VOC are 2,830 tpy 838 tpy, respectively. The Project's tallest stack is approximately 60.96 meters; therefore, the source release type "H," representing sources modeled at 90 meters, was used (USEPA, 2019a). . These MERP values were used as a conservative representation for the Project.

Table 7-1 MERPS and Modeled Concentrations from Terry County

Pollutant	Emissions	Stack Height	MERP	Maximum Calculated Concentration
	(tpy)	(m)	(tpy)	(ppb)
NO_X	3,000	90	698	4.292
VOC	1,000	90	16,393	0.061

Table 7-2 Cumulative Impact Analysis for Ozone

Pollutant	Project Emissions	Calculated O_3 Project Impact	Total O_3 Project Impact	O_3 Background Design Value	Total O_3 Concentration	8-hour O_3 NAAQS
	(tpy)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)
NO_X	2,830	4.05	4.10	64.0	68.1	70.0
VOC	838	0.05				

As demonstrated above in Table 7-2, the cumulative concentration is less than the 8-hour NAAQS (70 ppb); therefore, the demonstration is complete.

7.2.3 Area of Significant Impact (AOI) Analysis

A preliminary impact determination is conducted to determine if the predicted off-property concentrations associated with the proposed increase in PSD-significant emissions are greater than the USEPA's SILs. No further modeling is required to demonstrate compliance if the maximum predicted concentration is below the SIL. If the maximum predicted concentration is equal to or greater than the SIL, a full impact modeling analysis is required and contributions from off-site sources that may impact the AOI must be accounted for using ambient air monitoring data or by direct inclusion in the modeling. The AOI is defined as all locations with predicted concentrations that are equal to or greater than the established SILs. An ambient

background concentration is added to the full impact modeling results to complete the NAAQS demonstration.

Preliminary impact determination modeling will be conducted for PSD-significant emissions of CO, NO_2, PM_{10}, $PM_{2.5}$, and SO_2 to determine whether a full impact modeling analysis is required for each pollutant and averaging period. The modeling results will be used to determine whether the predicted concentrations are greater than the SIL for each pollutant and averaging period.

The AOI analysis results are provided in Section 12.1.2.

7.2.4 PSD Pre-Application Analysis

For PSD analyses, a preliminary impact determination is conducted to determine if the predicted off-property concentrations associated with the proposed increase in PSD-significant emissions are greater than the USEPA's SMCs. If the maximum predicted concentration is less than the SMC, the demonstration is complete and no consideration of preconstruction ambient air quality monitoring is required. If the maximum concentration is greater than the SMC, representative monitoring background concentrations are used to establish the existing air quality for the area.

Preliminary impact determination modeling will be conducted for PSD-significant emissions of CO, NO_2, PM_{10}, and SO_2 for comparison with the SMCs. A preliminary impact determination will not be conducted for $PM_{2.5}$. Representative monitoring background $PM_{2.5}$ concentrations are used to establish the existing air quality for the area.

The PSD pre-application analysis results are provided in Section 12.1.3.

7.3 Modeling Approach – Full Impact Analysis

Full impact modeling analyses were conducted for comparison with the NAAQS and PSD increment consumption limits for pollutants and averaging periods with preliminary impacts equal to or greater than the SIL. These modeling analyses are described in the sections below.

7.3.1 NAAQS Analysis

NAAQS have been established for ozone, CO, NO_2, SO_2, PM_{10}, and $PM_{2.5}$. Compliance with the NAAQS must be demonstrated for sources with PSD-significant emissions. As discussed in Section 2.1, PSD applies to the proposed emissions of ozone, CO, NO_2, SO_2, PM_{10}, and $PM_{2.5}$.

Based on the results of the Preliminary Impact Determination, a full impact NAAQS analysis was required for 1-hour NO_2, annual NO_2, 24-hour PM_{10}, 24-hour $PM_{2.5}$, and annual $PM_{2.5}$. Only

receptors identified as above the significant impact limit in the preliminary impact determination were included in the full impacts analysis.

7.3.2 PSD Increment Consumption Analysis

PSD increment consumption limits currently exist for NO_2, SO_2, PM_{10}, and $PM_{2.5}$. Compliance with the PSD increment consumption limits must be demonstrated for sources with PSD-significant emissions. As discussed in Section 2.1, PSD applies to the proposed emissions of NO_2, SO_2, PM_{10}, and $PM_{2.5}$.

A preliminary impacts determination will first be conducted using Project-related emissions to determine if a detailed PSD increment consumption analysis is required. This process is described in greater detail in Section 7.2.3. A full impact analysis will then be performed for applicable emissions for comparison to the PSD increment consumption limits. This analysis will include PSD increment-consuming emissions from Project sources and from existing and proposed PSD increment-consuming emission sources affecting the Project's impact area, as listed in the TCEQ APAD inventory system and provided in the TCEQ permit file system (see Section 6.2).

Based on the results of the preliminary impact determination, a full impact PSD increment consumption modeling analyses will be required for annual NO_2, 24-hour PM_{10}, 24-hour $PM_{2.5}$, and annual $PM_{2.5}$. Only receptors identified as above the significant impact limit in the preliminary impact determination will be included in the full impacts analysis.

Section 8
Selection of Dispersion Option

A determination of the albedo, Bowen ratio, and surface roughness length of the modeling domain must be made before an atmospheric dispersion model can be run. The TCEQ has determined the albedo values and Bowen ratios for each county in Texas. In order to maintain consistency in the modeling of all proposed projects in Texas, the TCEQ has created pre-processed meteorological data sets for the three general roughness lengths that cover each county in Texas. The modeling method preferred by the TCEQ is to choose one of these three roughness lengths based on a review of the modeling domain.

TCEQ modeling staff has provided *Air Dispersion Modeling Team Initiative to Update Meteorological Data, November 2022* as a reference in determining the appropriate roughness length for meteorological data set selection. Following this guidance, the USEPA's AERSURFACE tool was utilized to determine the surface roughness length for this Project. A surface roughness of **0.260** meters was obtained for the Project location, as shown below on Table 8-1. This is within the 0.1 to 0.7 range stated in the referenced TCEQ AERMOD Training document for the TCEQ's "medium surface roughness" meteorological dataset. Therefore, the "medium surface roughness" meteorological data set was utilized in the modeling analysis. AERSURFACE files input and output files have been included in the electronic files submitted to the TCEQ.

Table 8-1 Summary of AERSURFACE Inputs and Outputs

AERSURFACE Version Number:	24142
Center UTM Easting (m):	700000
Center UTM Northing (m):	3452000
NLCD Land Cover (year)	2021
NLCD Impervious Surface (year)	2021
NLCD Tree Canopy (year)	2021
Study Radius (km)	1
Airport?	No
Continuous Snow Cover	No
Surface Moisture	Average
Arid Region?	No
Month/Season Assignment	Default
Surface Roughness Length [Z_o] (m)	**0.260**

Section 9
Building Wake Effects

Building downwash effects were included in the modeling based on guidance provided in the USEPA's *User's Guide to the Building Profile Input Program, USEPA-454/R-93-038, October 1993 (Revised April 12, 2004)*. The USEPA currently requires that all building downwash be determined using the USEPA Building Profile Input Program (BPIPPRM) subroutine. Providence/Oris LLC's "BEE-Line BEEST for Windows" was used for calculating downwash parameters for this analysis. This program includes downwash software which uses the latest BPIPPRM subroutine (Version 04274) in its calculations.

Information regarding the Project structures was entered into the BPIP-based software program. The downwash parameter values were calculated for each point source by the software program and inserted into the AERMOD input files in the appropriate locations and formats.

Tables listing the building and tank downwash structures used in the modeling will be included in the final AQA.

Section 10
Receptor Grids

The receptor grids used in the preliminary and full impacts analyses followed the guidelines provided by the TCEQ in its AQMG. The NAD83 datum was used for the receptor UTM coordinates. Providence/ORIS, LLC's "BEE-Line BEEST for Windows" was used to calculate the appropriate domain boundaries. The USEPA AERMAP program (Version 24142) was used to calculate (interpolate) the terrain elevations and local terrain maximums.

The receptor coverage utilized for the preliminary impact analyses consisted of the following:

- 25-meter spaced receptors along the fence line to a distance of 300 meters;
- 100-meter spaced receptors to a distance of one kilometer from the fence line;
- 500-meter spaced receptors to a distance of five kilometers from the fence line; and
- 1,000-meter spaced receptors to a distance up to 50 kilometers to ensure that (1) the maximum predicted concentration is located, (2) all locations with predicted concentrations greater than the SILs were identified and (3) that concentration gradients associated with the Project-related emissions clearly decrease in magnitude outside of the AOIs.

These receptor grids were designed to capture the maximum off-property ground-level concentrations for all pollutants, operating scenarios, and review types.

Section 11
Meteorological Data

The air dispersion modeling for the Project was performed using AERMOD-ready meteorological data for Pecos County made available and approved through the TCEQ.

A summary of relevant information regarding the meteorological data selection is provided in Table 11-1 below.

Table 11-1 Summary of Meteorological Data Selection

Surface Station ID:	23091 – FST
Upper Air Station ID:	22010 - DRT
Profile Base Elevation, (m):	917
AERMET Version Number:	22112
Was TCEQ pre-processed data used?	Yes
TCEQ pre-processed data surface roughness category:	Medium
Data Set Used for 1 Year Analyses:	2020
Data Sets Used for 5 Years Analyses:	2017, 2018, 2019, 2020, 2021
Which analyses relied on 1 year?	State Property Line; State Health Effects
Which analyses relied on 5 years?	NO_2, CO, SO_2, PM_{10}, $PM_{2.5}$

Pre-processed meteorological data consisted of surface data from the Fort Stockton-Pecos County Airport (Surface ID FST; NWS Station Number 23091) and upper air data from Del Rio, Texas (Upper Air ID DRT, MWS Station Number 22010). The TCEQ processed the data using AERMET (Version 22112) and incorporated AERMINUTE data along with a low wind speed threshold of 0.5 m/s. More details regarding the pre-processed meteorological data are available on the TCEQ website.

The most recent five years of representative meteorological data (2017, 2018, 2019, 2020 and 2021) available from the TCEQ were utilized in the NAAQS and PSD increment analyses. For the state property line and state health effects analysis modeling, a single year of representative meteorological data (2020) was used.

The base elevation for the Fort Stockton-Pecos County Airport station is 917 meters. As discussed in Section 8, the TCEQ-developed "medium" surface roughness value was utilized. The meteorological data files have been included in the electronic files submitted to the TCEQ, as described in Attachment C.

Section 12
Modeling Results

The results of the dispersion modeling that was conducted for NO_2, CO, SO_2, PM_{10}, and $PM_{2.5}$ to demonstrate compliance with the NAAQS and PSD increments modeling are included in this section. The dispersion modeling analyses were conducted in accordance with the USEPA's *Guideline on Air Quality Models* (USEPA, 2017), TCEQ's *Air Quality Modeling Guidelines* (TCEQ, 2024), and discussion with TCEQ. Copies of all modeling input and output files will be included in the electronic files submitted to the TCEQ or shortly thereafter.

Table 12-1 provides the SILs, NAAQS, and PSD Class II increments, as well as the modeling rank basis used for the assessment of compliance with the various criteria.

Table 12-1 Summary of SILs, NAAQS, and PSD Class II Increments

Pollutant	Averaging Period	Rank for SIL Assessment	SIL ($\mu g/m^3$)	NAAQS ($\mu g/m^3$)	PSD Class II Increment ($\mu g/m^3$)	Rank for NAAQS/PSD Assessment
NO_2	1-hour	H1H (5-year average)	7.5	188		H8H (5-year average)
	Annual	H1H	1	100	25	H1H
CO	1-hour	H1H	2,000	40,000		H2H
	8-hour	H1H	500	10,000		H2H
SO_2	1-hour	H1H (5-year average)	7.8	196		H4H (5-year average)
	3-hour	H1H	25	1,300	512	H2H
	24-hour	H1H	5	365	91	H2H
	Annual	H1H	1	80	20	H1H
PM_{10}	24-hour	H1H	5	150	30	NAAQS: H6H PSD: H2H
	Annual	H1H	1		17	H1H
$PM_{2.5}$ [a]	24-hour	NAAQS: H1H (5-year average) PSD: H1H	1.2	35	9	NAAQS: H8H (5-year average) PSD: H2H
	Annual	NAAQS: H1H (5-year average) PSD: H1H	0.13	9	4	NAAQS: H1H (5-year average) PSD: H1H

[a] The use of the recommended *de minimis* levels (1.2 μg/m^3 for 24-hr $PM_{2.5}$ and 0.13 μg/m^3 for annual $PM_{2.5}$) is sufficient to conclude that a proposed source will not cause or contribute to a violation of a $PM_{2.5}$ NAAQS or Increment based on the analyses documented in the following EPA guidance: https://www.tceq.texas.gov/permitting/air/modeling/epa-mod-guidance.html

12.1 Preliminary Impact Determination

12.1.1 Modeled Emission Rates for Precursors (MERPs) Analysis Results

As described in Section 7.2.1, a Tier 1 approach was used to estimate the secondary $PM_{2.5}$ impacts associated with the precursor emissions. The estimated secondary $PM_{2.5}$ analysis results are summarized in Table 12-2.

Table 12-2 Secondary Formation of $PM_{2.5}$

Pollutant	Averaging Period	Class II	Class I – Big Bend NP	Class I – Carlsbad Caverns NP Guadalupe Mountains NP
		(μg/m^3)	(μg/m^3)	(μg/m^3)
$PM_{2.5}$	24-hour	0.2476	0.1856	0.1641
	Annual	0.0068	0.0038	0.0030

These estimated impacts were included in the Area of Significant Impact analysis and in the full impact analyses.

12.1.2 Area of Significant Impact (AOI) Analysis Results

As described in Section 7.2.3, this modeling was conducted for Project emissions to determine whether full impact modeling is required and, if so, to determine the AOI. The predicted ground-level concentrations and SILs are summarized in Table 12-3.

Table 12-3 Maximum Predicted Project Impacts

Pollutant	Averaging Period	Rank for SIL Assessment	SIL ($\mu g/m^3$)	Predicted Impact ($\mu g/m^3$)
NO_2	1-hour	H1H (5-year average)	7.5	**54.56**
	Annual	H1H	1	**1.51**
CO	1-hour	H1H	2,000	535.58
	8-hour	H1H	500	309.54
SO_2	1-hour	H1H (5-year average)	7.8	3.33
	3-hour	H1H	25	2.85
	24-hour	H1H	5	1.51
	Annual	H1H	1	0.18
PM_{10}	24-hour	H1H	5	**6.09**
	Annual	H1H	1	0.89
$PM_{2.5}$ [a]	24-hour (NAAQS)	H1H (5-year average)	1.2	**4.28**
	24-hour (PSD)	H1H	1.2	**6.24**
	Annual (NAAQS)	H1H (5-year average)	0.13	**0.80**
	Annual (PSD)	H1H	0.13	**0.85**

Notes:
[a] Results include secondary $PM_{2.5}$ impacts.
Bold = above SIL.

As can be seen in Table 12-3, Project impacts are below the SILs for all criteria pollutants with the exception of NO_2 (1-hour and annual), PM_{10} (24-hour), and $PM_{2.5}$ (24-hour and annual). No further modeling is required for the other pollutants or averaging periods.

12.1.3 PSD Pre-Application Analysis Results

As described in Section 7.2.4, this modeling was conducted to determine whether the Project is exempt from the pre-construction ambient monitoring data gathering requirements. The predicted ground-level concentrations and SMCs are summarized in Table 12-4.

Table 12-4 PSD Pre-Application Analysis Impacts

Pollutant	Averaging Period	Predicted Impact	SMC
		($\mu g/m^3$)	($\mu g/m^3$)
CO	8-hour	309.54	575
NO_2	Annual	1.51	14
PM_{10}	24-hour	6.09	10
$PM_{2.5}$	24-hour	6.24	--[a]
SO_2	24-hour	1.51	13
O_3	8-hour	--[b]	--[b]

Notes:
[a] Per Sierra Club vs. USEPA, the pre-construction requirement cannot be waived for $PM_{2.5}$.
[b] Ozone ambient impact analysis is required, including pre-construction monitoring, when a project proposes a net emission increase of 100 tpy or more of NOx or VOCs.

As can be seen, the maximum predicted impacts for CO, NO_2, PM_{10}, and SO_2 are less than their applicable PSD monitoring SMC listed in Table 12-4. Therefore, pre-construction monitoring would not be required for these pollutants.

As discussed in Section 5.3, the January 22, 2013 Court decision does not allow the exemption of a $PM_{2.5}$ pre-construction monitoring analysis. Pacifico proposes the use of existing ambient air monitoring data from the Odessa Gonzales monitor to meet the $PM_{2.5}$ pre-construction monitoring data requirement.

12.2 Full Impact Analysis

As discussed in Section 12.1.2, the Project exceeds the SILs for NO_2 (1-hour and annual), PM_{10} (24-hour), and $PM_{2.5}$ (24-hour and annual). Therefore, additional modeling impact analyses will be conducted.

12.2.1 Cumulative Modeling Results – Full NAAQS

Table 12-5 summarizes the PSD pollutants and averaging periods for which cumulative modeling that includes emissions from the Project, emissions from offsite sources, and background concentrations will be conducted for comparison to the full NAAQS. These

analyses will be performed using only the receptors at which the respective SIL are exceeded in the AOI analysis (after accounting for contributions of secondary $PM_{2.5}$). The cumulative modeling results will be provided in the final AQA and will demonstrate that none of the NAAQS are exceeded.

Table 12-5 Cumulative Modeling Impacts – Full NAAQS

Pollutant	Averaging Period	Rank for NAAQS Assessment	NAAQS ($\mu g/m^3$)	Predicted Conc. ($\mu g/m^3$)	Background Conc. ($\mu g/m^3$)	Total Conc. ($\mu g/m^3$)
NO_2	1-hour	H8H (5-year average)	188	*TBD*	63.9	*TBD*
	Annual	H1H	100	*TBD*	9.4	*TBD*
PM_{10}	24-hour	H6H	150	*TBD*	68.0	*TBD*
$PM_{2.5}$ [a]	24-hour	H8H (5-year average)	35	*TBD*	18.3	*TBD*
	Annual	H1H (5-year average)	9	*TBD*	7.2	*TBD*

Notes:
[a] Results include secondary $PM_{2.5}$ impacts.

The results of the NAAQS modeling for 1-hour NO_2 will be presented as the maximum five-year average of the 98th percentile of the annual distribution of the maximum daily 1-hour predicted concentrations (or high, eighth high (H8H) predicted concentration) determined for each receptor.

The results of the NAAQS modeling for annual NO_2 will be presented as maximum predicted concentration from all receptors across the five individual years.

The results of the NAAQS modeling for 24-hour PM_{10} will be presented as the maximum high, sixth high (H6H) predicted concentration for the concatenated five-year period.

The results of the NAAQS modeling for 24-hour $PM_{2.5}$ will be presented as the maximum five-year average of the 98th percentile of the annual distribution of the maximum 24-hour predicted concentrations (or H8H predicted concentration) determined for each receptor.

The results of the NAAQS modeling for annual $PM_{2.5}$ will be presented as the highest five-year average of the predicted concentrations from all receptors.

12.2.2 Cumulative Modeling Results – PSD Class II Increments

Table 12-6 summarizes the PSD pollutants and averaging periods for which cumulative modeling that includes emissions from the Project and emissions from offsite sources will be conducted for comparison to the PSD Class II increments. These analyses will be performed using only the receptors at which the respective SIL are exceeded in the AOI analysis (after accounting for contributions of secondary $PM_{2.5}$). The cumulative modeling results will be provided in the final AQA and will demonstrate that none of the PSD Class II increments are exceeded.

Table 12-6 Cumulative Modeling Impacts – PSD Class II Increments

Pollutant	Averaging Period	Rank for Increment Assessment	PSD Class II Increment ($\mu g/m^3$)	Predicted Conc. ($\mu g/m^3$)
NO_2	Annual	H1H	25	*TBD*
PM_{10}	24-hour	H2H	30	*TBD*
$PM_{2.5}$ [a]	24-hour	H2H	9	*TBD*
	Annual	H1H	4	*TBD*

Notes:
[a] Results include secondary $PM_{2.5}$ impacts.

The results of the PSD Class II increment modeling for annual NO_2 will be presented as maximum predicted concentration at any receptor across the five individual years.

The results of the PSD Class II increment modeling for 24-hour PM_{10} and 24-hour $PM_{2.5}$ will be presented as the maximum high, second high (H2H) predicted concentration across the five individual years.

The results of the PSD Class II increment modeling for annual $PM_{2.5}$ will be presented as the maximum predicted concentration at any receptor across the five individual years.

12.3 Additional Impact Analysis

12.3.1 Growth Analysis

The TCEQ's AQMG states that "an in-depth growth analysis is only required if the Project would result in a significant shift in population and associated activity into the area (i.e., a population increase on the order of thousands of people)." Employment within this area (i.e.,

within the modeling domain) will not significantly increase as a result of the Project. Also, there will not be any significant impacts due to any changes in the population size or density, or changes in the type of development in the area. Therefore, possible adverse impacts from this Project are not expected.

12.3.2 Visibility Impairment Analysis

As discussed in Section 3, there are no Class I areas within 100 kilometers of the Project. A Class II visibility analysis is not required since the Project will comply with the visibility and opacity requirements in 30 TAC Chapter 111, as well as with the secondary NAAQS, which are set at a level sufficient to protect against adverse effects on visibility.

12.3.3 Soils and Vegetation Analysis

The emissions from the Project will not significantly affect any soils or vegetation within the area (i.e., the modeling domain). There are no predicted exceedances of the Primary or Secondary NAAQS due to the proposed emissions. Primary NAAQS set limits to protect public health, with an adequate margin of safety. "Public health" is defined to include the health of "sensitive" populations such as asthmatics, children and the elderly. Secondary NAAQS set limits to protect public welfare from any known or anticipated adverse effects associated with the presence of such a pollutant. "Public welfare" includes protection against decreased visibility, damage to animals, crops, vegetation and buildings. Therefore, possible adverse impacts from this Project are not expected.

Section 13
Class I Area Impact Analysis

13.1 Class I Area Increment Analysis

Predicted concentrations of annual NO_2, 3-hour SO_2, 24-hour SO_2, annual SO_2, 24-hour PM_{10}, annual PM_{10}, 24-hour $PM_{2.5}$, and annual $PM_{2.5}$ were modeled using the AERMOD model to determine the significance of ambient impacts at or about 50 kilometers (km) from the Project site in the direction of the nearest Class I areas, which are beyond 100-km from the Project. The $PM_{2.5}$ model predicted impacts included results from secondary formation of $PM_{2.5}$ using distant dependent Modeled Emission Rates for Precursors (MERPs) at a distance of 160 and 180 km, which is the approximate distance to Big Bend National Park (NP) and the Carlsbad Caverns and Guadalupe Mountains NP Class I areas, respectively.

Class I screening receptors were developed by placing a ring of receptors at or about 50 km from the Project site. Actual Class I receptors and heights for the Big Bend NP, Carlsbad Caverns NP, and Guadalupe Mountains NP areas were obtained from the National Park Service. Screening receptors within an arc subtended by the minimum and maximum angular directions to the Class I areas were assigned all of the heights within that Class I area in order to develop a set of representative screening receptors at or about 50 km from the Project. The model predicted concentration at receptors located 50 km from the Project showed that all concentrations of annual NO_2; 3-hour, 24-hour, and annual SO_2; 24-hr and annual PM_{10}, and annual $PM_{2.5}$ were below the Class I Increment Significant Impact Limits (SIL). As such, for these pollutants and averaging periods, the sources from this Project will not make a significant impact or adversely affect the Class I areas and the screening demonstration is complete for those pollutants and averaging periods.

For 24-hour $PM_{2.5}$, the screening results showed model predicted concentrations at 50 km were marginally over the $PM_{2.5}$ 24-hour Class I increment SIL. As such, further screening was performed to evaluate model predicted concentrations of 24-hr $PM_{2.5}$ at the Class I area distances, which are approximately 160 to 180 km from the Project. The same approach using screening receptors within an arc subtended by the minimum and maximum angular directions to the Class I areas was used, but receptors were placed at 160 km from the Project. The model-predicted concentrations at the NP distances showed that all concentrations of 24-hour $PM_{2.5}$ were below the Class I increment SIL. As such, the sources from this Project will not have a significant impact or adversely affect the Class I area and the screening demonstration is complete.

13.2 Visibility and Air Quality-Related Values (AQRV)

The Project is located beyond 100 km from the nearest Class I area and therefore would not require a Class I visibility and Air Quality-Related Values (AQRV) analysis. Further, with attenuation below increment significance levels at Class I area distances we would not expect adverse impacts on any Class I area including visibility impairment or adverse effects on AQRVs.

Section 14
State-Only Air Quality Impact Analyses

14.1 TCEQ State Property Line Standard Analysis

TCEQ has implemented a state-specific procedure for evaluation of ground-level concentrations of SO_2, H_2S, and H_2SO_4. Attachment D provides the TCEQ EMEW demonstrating compliance with all applicable TCEQ State Property Line standards.

14.2 Health Effects Analysis

TCEQ has also implemented a state-specific procedure to evaluate off-property ground-level concentrations of pollutants which do not have a federal or state-level standard. These pollutants are compared against the state's ESLs, which are updated regularly to incorporate new toxicology data. The Project followed the tiered MERA process as outlined in the TCEQ guidance (TCEQ, 2018). The EMEW included as Attachment D provides a summary of the results of the MERA. As can be seen in the EMEW, the Project's impacts are less than the ESLs and are, therefore, in compliance with health effects standards.

Attachment A
Project Source Parameters and Emission Rates Modeled

Point Source Parameters and Emission Rates Modeled:

EPN	Model ID	Description	Easting	Northing	Base Elevation	Stack Height	Exit Temp	Exit Velocity	Exit Diam	NOx	NOx	CO	CO	SO2	SO2	SO2
			m	m	m	ft	F	fps	ft	1-HR	ANN	1-HR	8-HR	30-MIN	1-HR	3-HR
CT-1A	CT_01A	Siemens SGT-800 Turbine 1	700570.72	3451977.09	772.56	100.00	850	74.67	12.00	4.8593	21.9935	114.5486	114.5486	0.7394	0.7394	0.7394
CT-2A	CT_02A	Siemens SGT-800 Turbine 2	700566.11	3451948.49	772.67	100.00	850	74.67	12.00	4.8593	21.9935	114.5486	114.5486	0.7394	0.7394	0.7394
CT-3A	CT_03A	Siemens SGT-800 Turbine 3	700561.50	3451919.90	772.78	100.00	850	74.67	12.00	4.8593	21.9935	114.5486	114.5486	0.7394	0.7394	0.7394
CT-4A	CT_04A	Siemens SGT-800 Turbine 4	700556.88	3451891.31	772.88	100.00	850	74.67	12.00	4.8593	21.9935	114.5486	114.5486	0.7394	0.7394	0.7394
CT-5A	CT_05A	Siemens SGT-800 Turbine 5	700552.27	3451862.72	772.98	100.00	850	74.67	12.00	4.8593	21.9935	114.5486	114.5486	0.7394	0.7394	0.7394
CT-6A	CT_06A	Siemens SGT-800 Turbine 6	700547.66	3451834.12	773.06	100.00	850	74.67	12.00	4.8593	21.9935	114.5486	114.5486	0.7394	0.7394	0.7394
CT-7A	CT_07A	Siemens SGT-800 Turbine 7	700543.04	3451805.53	773.14	100.00	850	74.67	12.00	4.8593	21.9935	114.5486	114.5486	0.7394	0.7394	0.7394
CT-8A	CT_08A	Siemens SGT-800 Turbine 8	700538.43	3451776.94	773.24	100.00	850	74.67	12.00	4.8593	21.9935	114.5486	114.5486	0.7394	0.7394	0.7394
CT-9A	CT_09A	Siemens SGT-800 Turbine 9	700533.82	3451748.35	773.33	100.00	850	74.67	12.00	4.8593	21.9935	114.5486	114.5486	0.7394	0.7394	0.7394
CT-10A	CT_10A	Siemens SGT-800 Turbine 10	700529.21	3451719.76	773.43	100.00	850	74.67	12.00	4.8593	21.9935	114.5486	114.5486	0.7394	0.7394	0.7394
CT-11A	CT_11A	Siemens SGT-800 Turbine 11	700524.59	3451691.16	773.51	100.00	850	74.67	12.00	4.8593	21.9935	114.5486	114.5486	0.7394	0.7394	0.7394
CT-12A	CT_12A	Siemens SGT-800 Turbine 12	700519.98	3451662.57	773.60	100.00	850	74.67	12.00	17.4156	21.9935	114.5486	114.5486	0.7394	0.7394	0.7394
CT-13A	CT_13A	Siemens SGT-800 Turbine 13	700507.60	3451585.82	773.86	100.00	850	74.67	12.00	17.4156	21.9935	114.5486	114.5486	0.7394	0.7394	0.7394
CT-14A	CT_14A	Siemens SGT-800 Turbine 14	700502.99	3451557.23	773.96	100.00	850	74.67	12.00	17.4156	21.9935	114.5486	114.5486	0.7394	0.7394	0.7394
CT-15A	CT_15A	Siemens SGT-800 Turbine 15	700498.37	3451528.64	774.06	100.00	850	74.67	12.00	17.4156	21.9935	114.5486	114.5486	0.7394	0.7394	0.7394
CT-16A	CT_16A	Siemens SGT-800 Turbine 16	700493.76	3451500.04	774.17	100.00	850	74.67	12.00	17.4156	21.9935	114.5486	114.5486	0.7394	0.7394	0.7394
CT-17A	CT_17A	Siemens SGT-800 Turbine 17	700489.14	3451471.45	774.26	100.00	850	74.67	12.00	17.4156	21.9935	114.5486	114.5486	0.7394	0.7394	0.7394
CT-18A	CT_18A	Siemens SGT-800 Turbine 18	700484.53	3451442.86	774.36	100.00	850	74.67	12.00	17.4156	21.9935	114.5486	114.5486	0.7394	0.7394	0.7394
CT-19A	CT_19A	Siemens SGT-800 Turbine 19	700479.92	3451414.27	774.44	100.00	850	74.67	12.00	17.4156	21.9935	114.5486	114.5486	0.7394	0.7394	0.7394
CT-20A	CT_20A	Siemens SGT-800 Turbine 20	700475.31	3451385.68	774.53	100.00	850	74.67	12.00	17.4156	21.9935	114.5486	114.5486	0.7394	0.7394	0.7394
CT-21A	CT_21A	Siemens SGT-800 Turbine 21	700470.69	3451357.08	774.63	100.00	850	74.67	12.00	17.4156	21.9935	114.5486	114.5486	0.7394	0.7394	0.7394
CT-1B	CT_01B	Large-Frame Combustion Turbine 1	700364.71	3451157.96	775.58	200.00	850	70.40	30.00	193.1796	163.2158	624.8283	624.8283	5.3544	5.3544	5.3544
CT-2B	CT_02B	Large-Frame Combustion Turbine 2	700351.35	3451075.19	775.83	200.00	850	70.40	30.00	193.1796	163.2158	624.8283	624.8283	5.3544	5.3544	5.3544
CT-3B	CT_03B	Large-Frame Combustion Turbine 3	700325.86	3450917.18	776.24	200.00	850	70.40	30.00	35.1862	163.2158	624.8283	624.8283	5.3544	5.3544	5.3544
CT-4B	CT_04B	Large-Frame Combustion Turbine 4	700312.50	3450834.42	776.49	200.00	850	70.40	30.00	35.1862	163.2158	624.8283	624.8283	5.3544	5.3544	5.3544
CT-5B	CT_05B	Large-Frame Combustion Turbine 5	700287.01	3450676.40	777.14	200.00	850	70.40	30.00	35.1862	163.2158	624.8283	624.8283	5.3544	5.3544	5.3544
CT-6B	CT_06B	Large-Frame Combustion Turbine 6	700273.66	3450593.63	777.52	200.00	850	70.40	30.00	35.1862	163.2158	624.8283	624.8283	5.3544	5.3544	5.3544
CT-7B	CT_07B	Large-Frame Combustion Turbine 7	700248.16	3450435.62	778.70	200.00	850	70.40	30.00	35.1862	163.2158	624.8283	624.8283	5.3544	5.3544	5.3544
CT-8B	CT_08B	Large-Frame Combustion Turbine 8	700234.81	3450352.86	779.03	200.00	850	70.40	30.00	35.1862	163.2158	624.8283	624.8283	5.3544	5.3544	5.3544
CT-9B	CT_09B	Large-Frame Combustion Turbine 9	700209.31	3450194.85	780.01	200.00	850	70.40	30.00	35.1862	163.2158	624.8283	624.8283	5.3544	5.3544	5.3544
CT-10B	CT_10B	Large-Frame Combustion Turbine 10	700195.96	3450112.08	780.43	200.00	850	70.40	30.00	35.1862	163.2158	624.8283	624.8283	5.3544	5.3544	5.3544
CT-11B	CT_11B	Large-Frame Combustion Turbine 11	700170.46	3449954.07	781.11	200.00	850	70.40	30.00	35.1862	163.2158	624.8283	624.8283	5.3544	5.3544	5.3544
CT-12B	CT_12B	Large-Frame Combustion Turbine 12	700157.11	3449871.30	781.33	200.00	850	70.40	30.00	35.1862	163.2158	624.8283	624.8283	5.3544	5.3544	5.3544
CT-13B	CT_13B	Large-Frame Combustion Turbine 13	700131.61	3449713.29	781.77	200.00	850	70.40	30.00	35.1862	163.2158	624.8283	624.8283	5.3544	5.3544	5.3544
CT-14B	CT_14B	Large-Frame Combustion Turbine 14	700118.26	3449630.53	782.00	200.00	850	70.40	30.00	35.1862	163.2158	624.8283	624.8283	5.3544	5.3544	5.3544
DPHEAT1	DPHT_01	Dewpoint Heater 1	700742.70	3451059.50	775.13	25.00	763	20.79	2.17	0.0968	0.4240	0.3250	0.3250	0.0123	0.0123	0.0123
DPHEAT2	DPHT_02	Dewpoint Heater 2	700741.58	3451052.58	775.16	25.00	763	20.79	2.17	0.0968	0.4240	0.3250	0.3250	0.0123	0.0123	0.0123
DPHEAT3	DPHT_03	Dewpoint Heater 3	700740.47	3451045.65	775.18	25.00	763	20.79	2.17	0.0968	0.4240	0.3250	0.3250	0.0123	0.0123	0.0123
DPHEAT4	DPHT_04	Dewpoint Heater 4	700739.35	3451038.73	775.20	25.00	763	20.79	2.17	0.0968	0.4240	0.3250	0.3250	0.0123	0.0123	0.0123
DPHEAT5	DPHT_05	Dewpoint Heater 5	700738.23	3451031.81	775.22	25.00	763	20.79	2.17	0.0968	0.4240	0.3250	0.3250	0.0123	0.0123	0.0123
DPHEAT6	DPHT_06	Dewpoint Heater 6	700726.68	3450960.18	775.40	25.00	763	20.79	2.17	0.1221	0.5348	0.4100	0.4100	0.0156	0.0156	0.0156
DPHEAT7	DPHT_07	Dewpoint Heater 7	700725.56	3450953.25	775.42	25.00	763	20.79	2.17	0.1221	0.5348	0.4100	0.4100	0.0156	0.0156	0.0156
DPHEAT8	DPHT_08	Dewpoint Heater 8	700724.44	3450946.33	775.44	25.00	763	20.79	2.17	0.1221	0.5348	0.4100	0.4100	0.0156	0.0156	0.0156
DPHEAT9	DPHT_09	Dewpoint Heater 9	700723.32	3450939.41	775.46	25.00	763	20.79	2.17	0.1221	0.5348	0.4100	0.4100	0.0156	0.0156	0.0156
DPHEAT10	DPHT_10	Dewpoint Heater 10	700722.21	3450932.49	775.48	25.00	763	20.79	2.17	0.1221	0.5348	0.4100	0.4100	0.0156	0.0156	0.0156
DPHEAT11	DPHT_11	Dewpoint Heater 11	700710.65	3450860.85	775.73	25.00	763	20.79	2.17	0.1221	0.5348	0.4100	0.4100	0.0156	0.0156	0.0156
DPHEAT12	DPHT_12	Dewpoint Heater 12	700709.53	3450853.93	775.75	25.00	763	20.79	2.17	0.1221	0.5348	0.4100	0.4100	0.0156	0.0156	0.0156
DPHEAT13	DPHT_13	Dewpoint Heater 13	700708.42	3450847.01	775.78	25.00	763	20.79	2.17	0.1221	0.5348	0.4100	0.4100	0.0156	0.0156	0.0156
DPHEAT14	DPHT_14	Dewpoint Heater 14	700694.62	3450761.53	776.09	25.00	763	20.79	2.17	0.1221	0.5348	0.4100	0.4100	0.0156	0.0156	0.0156
DPHEAT15	DPHT_15	Dewpoint Heater 15	700693.51	3450754.61	776.12	25.00	763	20.79	2.17	0.1221	0.5348	0.4100	0.4100	0.0156	0.0156	0.0156
DPHEAT16	DPHT_16	Dewpoint Heater 16	700692.39	3450747.69	776.15	25.00	763	20.79	2.17	0.1221	0.5348	0.4100	0.4100	0.0156	0.0156	0.0156
DPHEAT17	DPHT_17	Dewpoint Heater 17	700678.60	3450662.21	776.45	25.00	763	20.79	2.17	0.1221	0.5348	0.4100	0.4100	0.0156	0.0156	0.0156
DPHEAT18	DPHT_18	Dewpoint Heater 18	700677.48	3450655.29	776.47	25.00	763	20.79	2.17	0.1221	0.5348	0.4100	0.4100	0.0156	0.0156	0.0156
DPHEAT19	DPHT_19	Dewpoint Heater 19	700676.37	3450648.37	776.49	25.00	763	20.79	2.17	0.1221	0.5348	0.4100	0.4100	0.0156	0.0156	0.0156

Point Source Parameters and Emission Rates Modeled:

EPN	Model ID	Description	Easting	Northing	Base Elevation	Stack Height	Exit Temp	Exit Velocity	Exit Diam	NOx	NOx	CO	CO	SO2	SO2	SO2
			m	m	m	ft	F	fps	ft	1-HR	ANN	1-HR	8-HR	30-MIN	1-HR	3-HR
FPUMP1	FPUMP1	Firewater Pump 1	700582.24	3451587.21	773.67	10.00	961	118.84	0.50	0.0206	0.0904	0.2690	0.0336	0.0033	0.0033	0.0033
FPUMP2	FPUMP2	Firewater Pump 2	700431.20	3451281.67	774.99	10.00	961	118.84	0.50	0.0206	0.0904	0.2690	0.0336	0.0033	0.0033	0.0033
EGEN1	EGEN01	Emergency Engine 1	700596.01	3451885.00	772.77	26.00	825	102.30	2.17	0.5275	2.3105	5.1442	0.6430	0.0532	0.0532	0.0532
EGEN2	EGEN02	Emergency Engine 2	700606.55	3451883.30	772.74	26.00	825	102.30	2.17	0.5275	2.3105	5.1442	0.6430	0.0532	0.0532	0.0532
EGEN3	EGEN03	Emergency Engine 3	700617.08	3451881.60	772.71	26.00	825	102.30	2.17	0.5275	2.3105	5.1442	0.6430	0.0532	0.0532	0.0532
EGEN4	EGEN04	Emergency Engine 4	700627.61	3451879.90	772.69	26.00	825	102.30	2.17	0.5275	2.3105	5.1442	0.6430	0.0532	0.0532	0.0532
EGEN5	EGEN05	Emergency Engine 5	700638.15	3451878.20	772.66	26.00	825	102.30	2.17	0.5275	2.3105	5.1442	0.6430	0.0532	0.0532	0.0532
EGEN6	EGEN06	Emergency Engine 6	700648.68	3451876.50	772.64	26.00	825	102.30	2.17	0.5275	2.3105	5.1442	0.6430	0.0532	0.0532	0.0532
EGEN7	EGEN07	Emergency Engine 7	700659.22	3451874.80	772.62	26.00	825	102.30	2.17	0.5275	2.3105	5.1442	0.6430	0.0532	0.0532	0.0532
EGEN8	EGEN08	Emergency Engine 8	700669.75	3451873.10	772.62	26.00	825	102.30	2.17	0.5275	2.3105	5.1442	0.6430	0.0532	0.0532	0.0532
EGEN9	EGEN09	Emergency Engine 9	700294.63	3451143.99	775.83	26.00	825	102.30	2.17	0.5275	2.3105	5.1442	0.6430	0.0532	0.0532	0.0532
EGEN10	EGEN10	Emergency Engine 10	700281.28	3451061.22	776.07	26.00	825	102.30	2.17	0.5275	2.3105	5.1442	0.6430	0.0532	0.0532	0.0532
EGEN11	EGEN11	Emergency Engine 11	700255.78	3450903.21	776.48	26.00	825	102.30	2.17	0.5275	2.3105	5.1442	0.6430	0.0532	0.0532	0.0532
EGEN12	EGEN12	Emergency Engine 12	700242.43	3450820.44	776.67	26.00	825	102.30	2.17	0.5275	2.3105	5.1442	0.6430	0.0532	0.0532	0.0532
EGEN13	EGEN13	Emergency Engine 13	700164.73	3450338.89	779.89	26.00	825	102.30	2.17	0.5275	2.3105	5.1442	0.6430	0.0532	0.0532	0.0532
EGEN14	EGEN14	Emergency Engine 14	700125.88	3450098.11	781.09	26.00	825	102.30	2.17	0.5275	2.3105	5.1442	0.6430	0.0532	0.0532	0.0532
EGEN15	EGEN15	Emergency Engine 15	700048.18	3449616.56	782.24	26.00	825	102.30	2.17	0.5275	2.3105	5.1442	0.6430	0.0532	0.0532	0.0532
ENGINE-1	ENGINE1	Supplemental Engine Generator 1	700499.14	3451291.75	774.73	60.00	704	92.55	5.25	38.9482	19.4741	111.2807	111.2807	0.0944	0.0944	0.0944
ENGINE-2	ENGINE2	Supplemental Engine Generator 2	700498.00	3451284.65	774.76	60.00	704	92.55	5.25	38.9482	19.4741	111.2807	111.2807	0.0944	0.0944	0.0944
CO-1	CO_01	Wet Surface Air Cooler (WSAC) 1	700588.66	3451806.43	772.99	21.75	-459.67	0.0033	0.0033							
CO-2	CO_02	Wet Surface Air Cooler (WSAC) 2	700613.02	3451802.50	772.93	21.75	-459.67	0.0033	0.0033							
CO-3	CO_03	Wet Surface Air Cooler (WSAC) 3	700637.37	3451798.57	772.85	21.75	-459.67	0.0033	0.0033							
CO-4	CO_04	Wet Surface Air Cooler (WSAC) 4	700661.72	3451794.64	772.84	21.75	-459.67	0.0033	0.0033							
CO-5	CO_05	Wet Surface Air Cooler (WSAC) 5	700686.08	3451790.71	772.90	21.75	-459.67	0.0033	0.0033							
CO-6	CO_06	Wet Surface Air Cooler (WSAC) 6	700448.75	3450975.25	775.79	27.75	-459.67	0.0033	0.0033							
CO-7	CO_07	Wet Surface Air Cooler (WSAC) 7	700466.81	3450972.34	775.75	27.75	-459.67	0.0033	0.0033							
CO-8	CO_08	Wet Surface Air Cooler (WSAC) 8	700409.90	3450734.48	776.56	27.75	-459.67	0.0033	0.0033							
CO-9	CO_09	Wet Surface Air Cooler (WSAC) 9	700427.96	3450731.56	776.53	27.75	-459.67	0.0033	0.0033							
CO-10	CO_10	Wet Surface Air Cooler (WSAC) 10	700371.05	3450493.70	777.70	27.75	-459.67	0.0033	0.0033							
CO-11	CO_11	Wet Surface Air Cooler (WSAC) 11	700389.11	3450490.79	777.65	27.75	-459.67	0.0033	0.0033							
CO-12	CO_12	Wet Surface Air Cooler (WSAC) 12	700332.20	3450252.92	778.96	27.75	-459.67	0.0033	0.0033							
CO-13	CO_13	Wet Surface Air Cooler (WSAC) 13	700350.26	3450250.00	778.84	27.75	-459.67	0.0033	0.0033							
CO-14	CO_14	Wet Surface Air Cooler (WSAC) 14	700293.35	3450012.14	780.18	27.75	-459.67	0.0033	0.0033							
CO-15	CO_15	Wet Surface Air Cooler (WSAC) 15	700311.41	3450009.23	780.10	27.75	-459.67	0.0033	0.0033							
CO-16	CO_16	Wet Surface Air Cooler (WSAC) 16	700254.50	3449771.36	781.13	27.75	-459.67	0.0033	0.0033							
CO-17	CO_17	Wet Surface Air Cooler (WSAC) 17	700272.56	3449768.45	781.05	27.75	-459.67	0.0033	0.0033							
CO-18	CO_18	Wet Surface Air Cooler (WSAC) 18	700215.65	3449530.59	781.87	27.75	-459.67	0.0033	0.0033							
CO-19	CO_19	Wet Surface Air Cooler (WSAC) 19	700233.71	3449527.67	781.81	27.75	-459.67	0.0033	0.0033							
OILVENT1	LOV_01A	Lube Oil Vent 1	700552.47	3451977.51	772.62	25.00	-459.67	0.0033	0.0033							
OILVENT2	LOV_02A	Lube Oil Vent 2	700546.26	3451949.63	772.73	25.00	-459.67	0.0033	0.0033							
OILVENT3	LOV_03A	Lube Oil Vent 3	700540.24	3451920.96	772.85	25.00	-459.67	0.0033	0.0033							
OILVENT4	LOV_04A	Lube Oil Vent 4	700535.63	3451893.09	772.95	25.00	-459.67	0.0033	0.0033							
OILVENT5	LOV_05A	Lube Oil Vent 5	700531.62	3451864.61	773.05	25.00	-459.67	0.0033	0.0033							
OILVENT6	LOV_06A	Lube Oil Vent 6	700527.32	3451835.31	773.13	25.00	-459.67	0.0033	0.0033							
OILVENT7	LOV_07A	Lube Oil Vent 7	700523.56	3451807.33	773.21	25.00	-459.67	0.0033	0.0033							
OILVENT8	LOV_08A	Lube Oil Vent 8	700518.97	3451778.52	773.30	25.00	-459.67	0.0033	0.0033							
OILVENT9	LOV_09A	Lube Oil Vent 9	700514.93	3451750.54	773.38	25.00	-459.67	0.0033	0.0033							
OILVENT10	LOV_10A	Lube Oil Vent 10	700510.30	3451721.20	773.48	25.00	-459.67	0.0033	0.0033							
OILVENT11	LOV_11A	Lube Oil Vent 11	700505.87	3451693.42	773.56	25.00	-459.67	0.0033	0.0033							
OILVENT12	LOV_12A	Lube Oil Vent 12	700500.84	3451664.74	773.64	25.00	-459.67	0.0033	0.0033							
OILVENT13	LOV_13A	Lube Oil Vent 13	700487.50	3451587.58	773.90	25.00	-459.67	0.0033	0.0033							
OILVENT14	LOV_14A	Lube Oil Vent 14	700484.20	3451558.63	774.00	25.00	-459.67	0.0033	0.0033							
OILVENT15	LOV_15A	Lube Oil Vent 15	700478.85	3451530.15	774.11	25.00	-459.67	0.0033	0.0033							
OILVENT16	LOV_16A	Lube Oil Vent 16	700474.13	3451501.68	774.21	25.00	-459.67	0.0033	0.0033							
OILVENT17	LOV_17A	Lube Oil Vent 17	700468.94	3451473.36	774.31	25.00	-459.67	0.0033	0.0033							
OILVENT18	LOV_18A	Lube Oil Vent 18	700465.16	3451444.26	774.40	25.00	-459.67	0.0033	0.0033							

Point Source Parameters and Emission Rates Modeled:

EPN	Model ID	Description	Easting	Northing	Base Elevation	Stack Height	Exit Temp	Exit Velocity	Exit Diam	NOx	NOx	CO	CO	SO2	SO2	SO2
			m	m	m	ft	F	fps	ft	1-HR	ANN	1-HR	8-HR	30-MIN	1-HR	3-HR
OILVENT19	LOV_19A	Lube Oil Vent 19	700459.66	3451416.73	774.49	25.00	-459.67	0.0033	0.0033							
OILVENT20	LOV_20A	Lube Oil Vent 20	700454.31	3451387.94	774.59	25.00	-459.67	0.0033	0.0033							
OILVENT21	LOV_21A	Lube Oil Vent 21	700448.65	3451358.84	774.69	25.00	-459.67	0.0033	0.0033							
OILVENT22	LOV_01B	Lube Oil Vent 22	700338.85	3451104.42	775.80	25.00	-459.67	0.0033	0.0033							
OILVENT23	LOV_02B	Lube Oil Vent 23	700322.66	3451019.98	776.03	25.00	-459.67	0.0033	0.0033							
OILVENT24	LOV_03B	Lube Oil Vent 24	700299.05	3450862.35	776.45	25.00	-459.67	0.0033	0.0033							
OILVENT25	LOV_04B	Lube Oil Vent 25	700283.54	3450776.64	776.71	25.00	-459.67	0.0033	0.0033							
OILVENT26	LOV_05B	Lube Oil Vent 26	700259.36	3450619.48	777.49	25.00	-459.67	0.0033	0.0033							
OILVENT27	LOV_06B	Lube Oil Vent 27	700245.00	3450539.55	778.06	25.00	-459.67	0.0033	0.0033							
OILVENT28	LOV_07B	Lube Oil Vent 28	700217.56	3450381.00	779.03	25.00	-459.67	0.0033	0.0033							
OILVENT29	LOV_08B	Lube Oil Vent 29	700199.87	3450295.38	779.80	25.00	-459.67	0.0033	0.0033							
OILVENT30	LOV_09B	Lube Oil Vent 30	700177.64	3450139.03	780.49	25.00	-459.67	0.0033	0.0033							
OILVENT31	LOV_10B	Lube Oil Vent 31	700160.38	3450055.97	780.93	25.00	-459.67	0.0033	0.0033							
OILVENT32	LOV_11B	Lube Oil Vent 32	700136.41	3449897.60	781.36	25.00	-459.67	0.0033	0.0033							
OILVENT33	LOV_12B	Lube Oil Vent 33	700120.79	3449814.02	781.55	25.00	-459.67	0.0033	0.0033							
OILVENT34	LOV_13B	Lube Oil Vent 34	700093.49	3449656.06	782.05	25.00	-459.67	0.0033	0.0033							
OILVENT35	LOV_14B	Lube Oil Vent 35	700077.96	3449574.95	782.27	25.00	-459.67	0.0033	0.0033							
TNK-DSL1	TNK_DSL1	Diesel Tank 1	700599.00	3451855.00	772.84	30.00	-459.67	0.0033	0.0033							
TNK-DSL2	TNK_DSL2	Diesel Tank 2	700599.00	3451848.00	772.86	30.00	-459.67	0.0033	0.0033							
TNK-DSL3	TNK_DSL3	Diesel Tank 3	700599.00	3451843.00	772.88	30.00	-459.67	0.0033	0.0033							
TNK-DSL4	TNK_DSL4	Diesel Tank 4	700628.00	3451258.00	774.54	30.00	-459.67	0.0033	0.0033							
TNK-DSL5	TNK_DSL5	Diesel Tank 5	700628.00	3451254.00	774.55	16.42	-459.67	0.0033	0.0033							
TNK-DSL6	TNK_DSL6	Diesel Tank 6	700627.00	3451247.00	774.58	16.42	-459.67	0.0033	0.0033							
TNK-DSL7	TNK_DSL7	Diesel Tank 7	700626.00	3451241.00	774.60	16.42	-459.67	0.0033	0.0033							

Area Source Parameters and Emission Rates Modeled:

EPN	Model ID	Description	Easting	Northing	Base Elevation	Release Height	Length	Width	-	NOx	NOx	CO	CO	SO2	SO2	SO2
			m	m	m	ft	ft	ft	-	1-HR	ANN	1-HR	8-HR	30-MIN	1-HR	3-HR
NGFUG	NGFUG	Natural Gas Piping Fugitives	700742.39	3450832.29	775.80	3.28	3.2808399	3.2808								
NH3FUG	NH3FUG	SCR Delivery System Fugitives	700382.09	3450644.59	776.97	3.28	3.2808399	3.2808								
MSSFUG	MSSFUG	ILE Turbine Maintenance Activities	700382.09	3450644.59	776.97	3.28	3.2808399	3.2808		4.18E-03	1.46E-03	2.54E-03	2.54E-03			

Point Source Parameters and Emission Rate

EPN	Model ID	Description	SO2	SO2	PM10	PM10	PM2.5	PM2.5	H2S	H2SO4	NH3	NH3	LUBEOIL	LUBEOIL	DIESEL	DIESEL
			24-HR	ANN	24-HR	ANN	24-HR	ANN	30-MIN	1-HR/24-HR	1-HR	ANN	1-HR	ANN	1-HR	ANN
CT-1A	CT_01A	Siemens SGT-800 Turbine 1	0.7394	3.2388	3.2524	14.2457	3.2524	14.2457		0.1132	7.1817	15.7280				
CT-2A	CT_02A	Siemens SGT-800 Turbine 2	0.7394	3.2388	3.2524	14.2457	3.2524	14.2457		0.1132	7.1817	15.7280				
CT-3A	CT_03A	Siemens SGT-800 Turbine 3	0.7394	3.2388	3.2524	14.2457	3.2524	14.2457		0.1132	7.1817	15.7280				
CT-4A	CT_04A	Siemens SGT-800 Turbine 4	0.7394	3.2388	3.2524	14.2457	3.2524	14.2457		0.1132	7.1817	15.7280				
CT-5A	CT_05A	Siemens SGT-800 Turbine 5	0.7394	3.2388	3.2524	14.2457	3.2524	14.2457		0.1132	7.1817	15.7280				
CT-6A	CT_06A	Siemens SGT-800 Turbine 6	0.7394	3.2388	3.2524	14.2457	3.2524	14.2457		0.1132	7.1817	15.7280				
CT-7A	CT_07A	Siemens SGT-800 Turbine 7	0.7394	3.2388	3.2524	14.2457	3.2524	14.2457		0.1132	7.1817	15.7280				
CT-8A	CT_08A	Siemens SGT-800 Turbine 8	0.7394	3.2388	3.2524	14.2457	3.2524	14.2457		0.1132	7.1817	15.7280				
CT-9A	CT_09A	Siemens SGT-800 Turbine 9	0.7394	3.2388	3.2524	14.2457	3.2524	14.2457		0.1132	7.1817	15.7280				
CT-10A	CT_10A	Siemens SGT-800 Turbine 10	0.7394	3.2388	3.2524	14.2457	3.2524	14.2457		0.1132	7.1817	15.7280				
CT-11A	CT_11A	Siemens SGT-800 Turbine 11	0.7394	3.2388	3.2524	14.2457	3.2524	14.2457		0.1132	7.1817	15.7280				
CT-12A	CT_12A	Siemens SGT-800 Turbine 12	0.7394	3.2388	3.2524	14.2457	3.2524	14.2457		0.1132	7.1817	15.7280				
CT-13A	CT_13A	Siemens SGT-800 Turbine 13	0.7394	3.2388	3.2524	14.2457	3.2524	14.2457		0.1132	7.1817	15.7280				
CT-14A	CT_14A	Siemens SGT-800 Turbine 14	0.7394	3.2388	3.2524	14.2457	3.2524	14.2457		0.1132	7.1817	15.7280				
CT-15A	CT_15A	Siemens SGT-800 Turbine 15	0.7394	3.2388	3.2524	14.2457	3.2524	14.2457		0.1132	7.1817	15.7280				
CT-16A	CT_16A	Siemens SGT-800 Turbine 16	0.7394	3.2388	3.2524	14.2457	3.2524	14.2457		0.1132	7.1817	15.7280				
CT-17A	CT_17A	Siemens SGT-800 Turbine 17	0.7394	3.2388	3.2524	14.2457	3.2524	14.2457		0.1132	7.1817	15.7280				
CT-18A	CT_18A	Siemens SGT-800 Turbine 18	0.7394	3.2388	3.2524	14.2457	3.2524	14.2457		0.1132	7.1817	15.7280				
CT-19A	CT_19A	Siemens SGT-800 Turbine 19	0.7394	3.2388	3.2524	14.2457	3.2524	14.2457		0.1132	7.1817	15.7280				
CT-20A	CT_20A	Siemens SGT-800 Turbine 20	0.7394	3.2388	3.2524	14.2457	3.2524	14.2457		0.1132	7.1817	15.7280				
CT-21A	CT_21A	Siemens SGT-800 Turbine 21	0.7394	3.2388	3.2524	14.2457	3.2524	14.2457		0.1132	7.1817	15.7280				
CT-1B	CT_01B	Large-Frame Combustion Turbine 1	5.3544	23.4522	11.1038	48.6346	11.1038	48.6346		0.8194	52.0031	113.8869				
CT-2B	CT_02B	Large-Frame Combustion Turbine 2	5.3544	23.4522	11.1038	48.6346	11.1038	48.6346		0.8194	52.0031	113.8869				
CT-3B	CT_03B	Large-Frame Combustion Turbine 3	5.3544	23.4522	11.1038	48.6346	11.1038	48.6346		0.8194	52.0031	113.8869				
CT-4B	CT_04B	Large-Frame Combustion Turbine 4	5.3544	23.4522	11.1038	48.6346	11.1038	48.6346		0.8194	52.0031	113.8869				
CT-5B	CT_05B	Large-Frame Combustion Turbine 5	5.3544	23.4522	11.1038	48.6346	11.1038	48.6346		0.8194	52.0031	113.8869				
CT-6B	CT_06B	Large-Frame Combustion Turbine 6	5.3544	23.4522	11.1038	48.6346	11.1038	48.6346		0.8194	52.0031	113.8869				
CT-7B	CT_07B	Large-Frame Combustion Turbine 7	5.3544	23.4522	11.1038	48.6346	11.1038	48.6346		0.8194	52.0031	113.8869				
CT-8B	CT_08B	Large-Frame Combustion Turbine 8	5.3544	23.4522	11.1038	48.6346	11.1038	48.6346		0.8194	52.0031	113.8869				
CT-9B	CT_09B	Large-Frame Combustion Turbine 9	5.3544	23.4522	11.1038	48.6346	11.1038	48.6346		0.8194	52.0031	113.8869				
CT-10B	CT_10B	Large-Frame Combustion Turbine 10	5.3544	23.4522	11.1038	48.6346	11.1038	48.6346		0.8194	52.0031	113.8869				
CT-11B	CT_11B	Large-Frame Combustion Turbine 11	5.3544	23.4522	11.1038	48.6346	11.1038	48.6346		0.8194	52.0031	113.8869				
CT-12B	CT_12B	Large-Frame Combustion Turbine 12	5.3544	23.4522	11.1038	48.6346	11.1038	48.6346		0.8194	52.0031	113.8869				
CT-13B	CT_13B	Large-Frame Combustion Turbine 13	5.3544	23.4522	11.1038	48.6346	11.1038	48.6346		0.8194	52.0031	113.8869				
CT-14B	CT_14B	Large-Frame Combustion Turbine 14	5.3544	23.4522	11.1038	48.6346	11.1038	48.6346		0.8194	52.0031	113.8869				
DPHEAT1	DPHT_01	Dewpoint Heater 1	0.0123	0.0541	0.0656	0.2872	0.0656	0.2872								
DPHEAT2	DPHT_02	Dewpoint Heater 2	0.0123	0.0541	0.0656	0.2872	0.0656	0.2872								
DPHEAT3	DPHT_03	Dewpoint Heater 3	0.0123	0.0541	0.0656	0.2872	0.0656	0.2872								
DPHEAT4	DPHT_04	Dewpoint Heater 4	0.0123	0.0541	0.0656	0.2872	0.0656	0.2872								
DPHEAT5	DPHT_05	Dewpoint Heater 5	0.0123	0.0541	0.0656	0.2872	0.0656	0.2872								
DPHEAT6	DPHT_06	Dewpoint Heater 6	0.0156	0.0682	0.0827	0.3623	0.0827	0.3623								
DPHEAT7	DPHT_07	Dewpoint Heater 7	0.0156	0.0682	0.0827	0.3623	0.0827	0.3623								
DPHEAT8	DPHT_08	Dewpoint Heater 8	0.0156	0.0682	0.0827	0.3623	0.0827	0.3623								
DPHEAT9	DPHT_09	Dewpoint Heater 9	0.0156	0.0682	0.0827	0.3623	0.0827	0.3623								
DPHEAT10	DPHT_10	Dewpoint Heater 10	0.0156	0.0682	0.0827	0.3623	0.0827	0.3623								
DPHEAT11	DPHT_11	Dewpoint Heater 11	0.0156	0.0682	0.0827	0.3623	0.0827	0.3623								
DPHEAT12	DPHT_12	Dewpoint Heater 12	0.0156	0.0682	0.0827	0.3623	0.0827	0.3623								
DPHEAT13	DPHT_13	Dewpoint Heater 13	0.0156	0.0682	0.0827	0.3623	0.0827	0.3623								
DPHEAT14	DPHT_14	Dewpoint Heater 14	0.0156	0.0682	0.0827	0.3623	0.0827	0.3623								
DPHEAT15	DPHT_15	Dewpoint Heater 15	0.0156	0.0682	0.0827	0.3623	0.0827	0.3623								
DPHEAT16	DPHT_16	Dewpoint Heater 16	0.0156	0.0682	0.0827	0.3623	0.0827	0.3623								
DPHEAT17	DPHT_17	Dewpoint Heater 17	0.0156	0.0682	0.0827	0.3623	0.0827	0.3623								
DPHEAT18	DPHT_18	Dewpoint Heater 18	0.0156	0.0682	0.0827	0.3623	0.0827	0.3623								
DPHEAT19	DPHT_19	Dewpoint Heater 19	0.0156	0.0682	0.0827	0.3623	0.0827	0.3623								

Point Source Parameters and Emission Rate

EPN	Model ID	Description	SO2	SO2	PM10	PM10	PM2.5	PM2.5	H2S	H2SO4	NH3	NH3	LUBEOIL	LUBEOIL	DIESEL	DIESEL
			24-HR	ANN	24-HR	ANN	24-HR	ANN	30-MIN	1-HR/24-HR	1-HR	ANN	1-HR	ANN	1-HR	ANN
FPUMP1	FPUMP1	Firewater Pump 1	0.0033	0.0002	0.0017	0.0020	0.0017	0.0020								
FPUMP2	FPUMP2	Firewater Pump 2	0.0033	0.0002	0.0017	0.0020	0.0017	0.0020								
EGEN1	EGEN01	Emergency Engine 1	0.0532	0.0027	0.0702	0.0843	0.0702	0.0843								
EGEN2	EGEN02	Emergency Engine 2	0.0532	0.0027	0.0702	0.0843	0.0702	0.0843								
EGEN3	EGEN03	Emergency Engine 3	0.0532	0.0027	0.0702	0.0843	0.0702	0.0843								
EGEN4	EGEN04	Emergency Engine 4	0.0532	0.0027	0.0702	0.0843	0.0702	0.0843								
EGEN5	EGEN05	Emergency Engine 5	0.0532	0.0027	0.0702	0.0843	0.0702	0.0843								
EGEN6	EGEN06	Emergency Engine 6	0.0532	0.0027	0.0702	0.0843	0.0702	0.0843								
EGEN7	EGEN07	Emergency Engine 7	0.0532	0.0027	0.0702	0.0843	0.0702	0.0843								
EGEN8	EGEN08	Emergency Engine 8	0.0532	0.0027	0.0702	0.0843	0.0702	0.0843								
EGEN9	EGEN09	Emergency Engine 9	0.0532	0.0027	0.0702	0.0843	0.0702	0.0843								
EGEN10	EGEN10	Emergency Engine 10	0.0532	0.0027	0.0702	0.0843	0.0702	0.0843								
EGEN11	EGEN11	Emergency Engine 11	0.0532	0.0027	0.0702	0.0843	0.0702	0.0843								
EGEN12	EGEN12	Emergency Engine 12	0.0532	0.0027	0.0702	0.0843	0.0702	0.0843								
EGEN13	EGEN13	Emergency Engine 13	0.0532	0.0027	0.0702	0.0843	0.0702	0.0843								
EGEN14	EGEN14	Emergency Engine 14	0.0532	0.0027	0.0702	0.0843	0.0702	0.0843								
EGEN15	EGEN15	Emergency Engine 15	0.0532	0.0027	0.0702	0.0843	0.0702	0.0843								
ENGINE-1	ENGINE1	Supplemental Engine Generator 1	0.0944	0.0472	0.6413	0.3207	0.6413	0.3207								
ENGINE-2	ENGINE2	Supplemental Engine Generator 2	0.0944	0.0472	0.6413	0.3207	0.6413	0.3207								
CO-1	CO_01	Wet Surface Air Cooler (WSAC) 1			0.0594	0.2604	0.0002	0.0011								
CO-2	CO_02	Wet Surface Air Cooler (WSAC) 2			0.0594	0.2604	0.0002	0.0011								
CO-3	CO_03	Wet Surface Air Cooler (WSAC) 3			0.0594	0.2604	0.0002	0.0011								
CO-4	CO_04	Wet Surface Air Cooler (WSAC) 4			0.0594	0.2604	0.0002	0.0011								
CO-5	CO_05	Wet Surface Air Cooler (WSAC) 5			0.0594	0.2604	0.0002	0.0011								
CO-6	CO_06	Wet Surface Air Cooler (WSAC) 6			0.0405	0.1775	0.0002	0.0007								
CO-7	CO_07	Wet Surface Air Cooler (WSAC) 7			0.0405	0.1775	0.0002	0.0007								
CO-8	CO_08	Wet Surface Air Cooler (WSAC) 8			0.0405	0.1775	0.0002	0.0007								
CO-9	CO_09	Wet Surface Air Cooler (WSAC) 9			0.0405	0.1775	0.0002	0.0007								
CO-10	CO_10	Wet Surface Air Cooler (WSAC) 10			0.0405	0.1775	0.0002	0.0007								
CO-11	CO_11	Wet Surface Air Cooler (WSAC) 11			0.0405	0.1775	0.0002	0.0007								
CO-12	CO_12	Wet Surface Air Cooler (WSAC) 12			0.0405	0.1775	0.0002	0.0007								
CO-13	CO_13	Wet Surface Air Cooler (WSAC) 13			0.0405	0.1775	0.0002	0.0007								
CO-14	CO_14	Wet Surface Air Cooler (WSAC) 14			0.0405	0.1775	0.0002	0.0007								
CO-15	CO_15	Wet Surface Air Cooler (WSAC) 15			0.0405	0.1775	0.0002	0.0007								
CO-16	CO_16	Wet Surface Air Cooler (WSAC) 16			0.0405	0.1775	0.0002	0.0007								
CO-17	CO_17	Wet Surface Air Cooler (WSAC) 17			0.0405	0.1775	0.0002	0.0007								
CO-18	CO_18	Wet Surface Air Cooler (WSAC) 18			0.0405	0.1775	0.0002	0.0007								
CO-19	CO_19	Wet Surface Air Cooler (WSAC) 19			0.0405	0.1775	0.0002	0.0007								
OILVENT1	LOV_01A	Lube Oil Vent 1			0.0182	0.0795	0.0182	0.0795					0.0182	0.0795		
OILVENT2	LOV_02A	Lube Oil Vent 2			0.0182	0.0795	0.0182	0.0795					0.0182	0.0795		
OILVENT3	LOV_03A	Lube Oil Vent 3			0.0182	0.0795	0.0182	0.0795					0.0182	0.0795		
OILVENT4	LOV_04A	Lube Oil Vent 4			0.0182	0.0795	0.0182	0.0795					0.0182	0.0795		
OILVENT5	LOV_05A	Lube Oil Vent 5			0.0182	0.0795	0.0182	0.0795					0.0182	0.0795		
OILVENT6	LOV_06A	Lube Oil Vent 6			0.0182	0.0795	0.0182	0.0795					0.0182	0.0795		
OILVENT7	LOV_07A	Lube Oil Vent 7			0.0182	0.0795	0.0182	0.0795					0.0182	0.0795		
OILVENT8	LOV_08A	Lube Oil Vent 8			0.0182	0.0795	0.0182	0.0795					0.0182	0.0795		
OILVENT9	LOV_09A	Lube Oil Vent 9			0.0182	0.0795	0.0182	0.0795					0.0182	0.0795		
OILVENT10	LOV_10A	Lube Oil Vent 10			0.0182	0.0795	0.0182	0.0795					0.0182	0.0795		
OILVENT11	LOV_11A	Lube Oil Vent 11			0.0182	0.0795	0.0182	0.0795					0.0182	0.0795		
OILVENT12	LOV_12A	Lube Oil Vent 12			0.0182	0.0795	0.0182	0.0795					0.0182	0.0795		
OILVENT13	LOV_13A	Lube Oil Vent 13			0.0182	0.0795	0.0182	0.0795					0.0182	0.0795		
OILVENT14	LOV_14A	Lube Oil Vent 14			0.0182	0.0795	0.0182	0.0795					0.0182	0.0795		
OILVENT15	LOV_15A	Lube Oil Vent 15			0.0182	0.0795	0.0182	0.0795					0.0182	0.0795		
OILVENT16	LOV_16A	Lube Oil Vent 16			0.0182	0.0795	0.0182	0.0795					0.0182	0.0795		
OILVENT17	LOV_17A	Lube Oil Vent 17			0.0182	0.0795	0.0182	0.0795					0.0182	0.0795		
OILVENT18	LOV_18A	Lube Oil Vent 18			0.0182	0.0795	0.0182	0.0795					0.0182	0.0795		

Point Source Parameters and Emission Rates

EPN	Model ID	Description	SO2	SO2	PM10	PM10	PM2.5	PM2.5	H2S	H2SO4	NH3	NH3	LUBEOIL	LUBEOIL	DIESEL	DIESEL
			24-HR	ANN	24-HR	ANN	24-HR	ANN	30-MIN	1-HR/24-HR	1-HR	ANN	1-HR	ANN	1-HR	ANN
OILVENT19	LOV_19A	Lube Oil Vent 19			0.0182	0.0795	0.0182	0.0795					0.0182	0.0795		
OILVENT20	LOV_20A	Lube Oil Vent 20			0.0182	0.0795	0.0182	0.0795					0.0182	0.0795		
OILVENT21	LOV_21A	Lube Oil Vent 21			0.0182	0.0795	0.0182	0.0795					0.0182	0.0795		
OILVENT22	LOV_01B	Lube Oil Vent 22			0.0182	0.0795	0.0182	0.0795					0.0182	0.0795		
OILVENT23	LOV_02B	Lube Oil Vent 23			0.0182	0.0795	0.0182	0.0795					0.0182	0.0795		
OILVENT24	LOV_03B	Lube Oil Vent 24			0.0182	0.0795	0.0182	0.0795					0.0182	0.0795		
OILVENT25	LOV_04B	Lube Oil Vent 25			0.0182	0.0795	0.0182	0.0795					0.0182	0.0795		
OILVENT26	LOV_05B	Lube Oil Vent 26			0.0182	0.0795	0.0182	0.0795					0.0182	0.0795		
OILVENT27	LOV_06B	Lube Oil Vent 27			0.0182	0.0795	0.0182	0.0795					0.0182	0.0795		
OILVENT28	LOV_07B	Lube Oil Vent 28			0.0182	0.0795	0.0182	0.0795					0.0182	0.0795		
OILVENT29	LOV_08B	Lube Oil Vent 29			0.0182	0.0795	0.0182	0.0795					0.0182	0.0795		
OILVENT30	LOV_09B	Lube Oil Vent 30			0.0182	0.0795	0.0182	0.0795					0.0182	0.0795		
OILVENT31	LOV_10B	Lube Oil Vent 31			0.0182	0.0795	0.0182	0.0795					0.0182	0.0795		
OILVENT32	LOV_11B	Lube Oil Vent 32			0.0182	0.0795	0.0182	0.0795					0.0182	0.0795		
OILVENT33	LOV_12B	Lube Oil Vent 33			0.0182	0.0795	0.0182	0.0795					0.0182	0.0795		
OILVENT34	LOV_13B	Lube Oil Vent 34			0.0182	0.0795	0.0182	0.0795					0.0182	0.0795		
OILVENT35	LOV_14B	Lube Oil Vent 35			0.0182	0.0795	0.0182	0.0795					0.0182	0.0795		
TNK-DSL1	TNK_DSL1	Diesel Tank 1													0.1091	0.0060
TNK-DSL2	TNK_DSL2	Diesel Tank 2													0.1091	0.0060
TNK-DSL3	TNK_DSL3	Diesel Tank 3													0.1091	0.0060
TNK-DSL4	TNK_DSL4	Diesel Tank 4													0.1091	0.0060
TNK-DSL5	TNK_DSL5	Diesel Tank 5													0.1091	0.0030
TNK-DSL6	TNK_DSL6	Diesel Tank 6													0.1091	0.0030
TNK-DSL7	TNK_DSL7	Diesel Tank 7													0.1091	0.0030

Area Source Parameters and Emission Rates

EPN	Model ID	Description	SO2	SO2	PM10	PM10	PM2.5	PM2.5	H2S	H2SO4	NH3	NH3	LUBEOIL	LUBEOIL	DIESEL	DIESEL
			24-HR	ANN	24-HR	ANN	24-HR	ANN	30-MIN	1-HR/24-HR	1-HR	ANN	1-HR	ANN	1-HR	ANN
NGFUG	NGFUG	Natural Gas Piping Fugitives							4.98E-05							
NH3FUG	NH3FUG	SCR Delivery System Fugitives									0.0152	0.0666				
MSSFUG	MSSFUG	ILE Turbine Maintenance Activities			0.0721	0.0002	0.0109	0.0000	0.0046		0.1268	0.0009			8.5604	0.5547

Attachment B
Off-Property Source Inventory

Off-Property Source Inventory **Site Location:** 700489 3451366

ID Number	EPN	Permit No.	RN	Type	Model ID	Release Point UTM Easting	Release Point UTM Northing	Base Elevation	Stack Height	Temp.	Exit Velocity	Stack Diameter	Modeled Emission Rates						Distance	Notes
													1-Hour NOx	Annual NOx	24-Hour PM10	Annual PM10	24-Hour PM2.5	Annual PM2.5		
						(m)	(m)	(m)	(ft)	(F)	(ft/sec)	(ft)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(m)	
4156	2	8409	RN100210087	STACK	APAD01	692928	3429917	873.50	38	740	78	2	44.11	193.20					22.74	
4516	11	8218	RN100227875	STACK	APAD02	724005	3486594	797.90	35	800	98.42	1.17	31.42	137.60					42.36	
4517	12	8218	RN100227875	STACK	APAD03	729806	3486717	797.26	35	800	98.37	1.17	31.42	137.60					45.93	
4614	E-3	8120	RN102556842	STACK	APAD04	685556	3481371	779.20	21	733	30	1	16.15	70.73					33.52	
4615	E-4	8120	RN102556842	STACK	APAD05	685556	3481371	779.20	21	733	30	1	16.15	70.73					33.52	
4616	H-2	8120	RN102556842	STACK	APAD06	685551	3481371	779.22	19	300	30	1	0.21	0.92					33.52	
5691	3	7428	RN102530110	STACK	APAD07	684109	3443335	839.60	10	300	0.31	0.67	0.06	0.25					18.24	
5693	2	7428	RN102530110	STACK	APAD08	684109	3443335	839.60	33	300	0.42	0.67	0.08	0.35					18.24	
6308	6	7065	RN102297983	STACK	APAD09	725595	3486351	794.60	25	350	3.51	0.83	0.35	0.18					43.06	
6979	STACK9	6738	RN100226695	STACK	APAD10	687035	3439689	853.81	37	500	0.25	0.67	0.05	0.21					17.81	
6980	STACK4	6738	RN100226695	STACK	APAD11	686720	3451481	810.40	35	500	0.24	0.67	0.07	0.29					13.77	
6981	STACK8	6738	RN100226695	STACK	APAD12	686720	3451481	810.40	36	500	0.25	0.67	0.05	0.21					13.77	
7496	2	6448	RN102707122	STACK	APAD13	742428	3458409	709.19	30	1100	2.39	0.67	1.50	6.57					42.53	
28292	CE-1	14071	RN102607975	STACK	APAD14	700448	3458234	755.07	18	950	136	0.83	19.80	86.72					6.87	Revised UTM coordinates based on site location.
28632	8	13601	RN102527074	STACK	APAD15	671550	3470720	787.00	9	800	8	0.25	0.84	3.70					34.81	
28851	01	13230	RN102603107	STACK	APAD16	688734	3483769	796.10	12	1100	87	0.29	1.87	8.19					34.47	
28871	2	13176	RN102529328	STACK	APAD17	676065	3445723	838.66	18	300	10	0.8	0.07	0.29					25.07	
29445	TURB-GE1	12264	RN102522539	STACK	APAD18	680434	3461946	786.39	50	777	70	8.5	2.81	12.30					22.67	
29461	1	12213	RN102575990	STACK	APAD19	700081	3495071	794.31	20	1000	25	2	0.15	0.22					43.71	
29472	13	12198	RN102529658	STACK	APAD20	673211	3446877	837.44	10	500	100	0.25	5.41	23.70					27.64	
29473	14	12198	RN102529658	STACK	APAD21	673211	3446877	837.44	26	400	20	0.67	0.08	0.34					27.64	
29474	9	12198	RN102529658	STACK	APAD22	673211	3446877	837.44	31	400	20	0.67	0.11	0.48					27.64	
29476	2	12198	RN102529658	STACK	APAD23	673211	3446877	837.44	10	450	40	0.33	5.41	23.70					27.64	
29520	HT-6	12076	RN102527454	STACK	APAD24	745954	3457104	709.13	30	400	30	12.75	0.05	0.22					45.83	
29849	C-1	11424	RN102776739	STACK	APAD25	674211	3480744	797.61	15	600	90	0.25	5.50	24.09					39.42	
296937	FLARE-1	73442	RN102522539	FLARE	APAD26	680211	3461768	787.24	100	1831.73	65.62	0.61	24.43	0.05					22.79	Effective flare diameter calculated.
375389	ENC FL	102389	RN106395262		APAD27	668065	3482026	807.29	3.28	-459.67	0.0033	0.0033	0.21	0.92	0.02	0.09			44.62	Stack parameters were missing. Modeled as a pseudo-point source with release height of 1 m.
375392	FLARE	102389	RN106395262		APAD28	668065	3482026	807.29	3.28	-459.67	0.0033	0.0033	0.28	0.12	0.01	0.01			44.62	Stack parameters were missing. Modeled as a pseudo-point source with release height of 1 m.
375393	ENG1	102389	RN106395262		APAD29	668065	3482026	807.29	3.28	-459.67	0.0033	0.0033	0.45	1.96	0.03	0.14			44.62	Stack parameters were missing. Modeled as a pseudo-point source with release height of 1 m.
375396	HEAT	102389	RN106395262		APAD30	668065	3482026	807.29	3.28	-459.67	0.0033	0.0033	0.05	0.22	0.01	0.02			44.62	Stack parameters were missing. Modeled as a pseudo-point source with release height of 1 m.
375673	ENC FL	107361	RN106567852	FLARE	APAD31	719703	3492981	818.67	3.28	1831.73	65.62	0.00	0.21	0.92	0.02	0.09	0.02	0.09	45.84	Stack parameters were missing. Modeled using TCEQ default parameters for flares.
549613	49	151616	RN109884361		APAD32	709633	3499164	823.88	69.88	-459.67	61.91	5.17			0.54	2.36	0.54	2.36	48.66	Stack parameters were missing. Revised using permitting files.

Off-Property Source Inventory **Site Location:** 700489 3451366

ID Number	EPN	Permit No.	RN	Type	Model ID	Release Point UTM Easting	Release Point UTM Northing	Base Elevation	Stack Height	Temp.	Exit Velocity	Stack Diameter	Modeled Emission Rates						Distance	Notes
													1-Hour NOx	Annual NOx	24-Hour PM10	Annual PM10	24-Hour PM2.5	Annual PM2.5		
						(m)	(m)	(m)	(ft)	(F)	(ft/sec)	(ft)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(m)	
549614	50	151616	RN109884361		APAD33	709633	3499164	823.88	69.88	-459.67	61.91	5.17			0.54	2.36	0.54	2.36	48.66	Stack parameters were missing. Revised using permitting files.
549615	51	151616	RN109884361		APAD34	709633	3499164	823.88	69.88	-459.67	61.91	5.17			0.54	2.36	0.54	2.36	48.66	Stack parameters were missing. Revised using permitting files.
549616	45	151616	RN109884361		APAD35	709633	3499164	823.88	69.88	249.53	56.15	3.75	5.10	22.33	0.83	3.62	0.73	3.20	48.66	Stack parameters were missing. Revised using permitting files.
549617	46	151616	RN109884361		APAD36	709633	3499164	823.88	69.88	249.53	56.15	3.75	5.10	22.33	0.83	3.62	0.73	3.20	48.66	Stack parameters were missing. Revised using permitting files.
549618	47	151616	RN109884361		APAD37	709633	3499164	823.88	69.88	249.53	56.15	3.75	5.10	22.33	0.83	3.62	0.73	3.20	48.66	Stack parameters were missing. Revised using permitting files.
549619	48	151616	RN109884361		APAD38	709633	3499164	823.88	69.88	249.53	56.15	3.75	5.10	22.33	0.83	3.62	0.73	3.20	48.66	Stack parameters were missing. Revised using permitting files.
549620	52	151616	RN109884361		APAD39	709633	3499164	823.88	45.93	-459.67	21.88	0.98			0.09	0.38	0.09	0.38	48.66	Stack parameters were missing. Revised using permitting files.
549621	53	151616	RN109884361		APAD40	709633	3499164	823.88	12.00	600.53	84.88	0.50	0.33	0.72	0.02	0.04	0.02	0.04	48.66	Stack parameters were missing. Revised using permitting files.
549622	STK	151616	RN109884361		APAD41	709633	3499164	823.88	10	-459.67	0.0033	0.0033				0.60		0.09	48.66	Stack parameters were missing. Modeled as a pseudo-point source with release height of 10 ft.
638062	JAW	162386	RN111040200		APAD42	718279	3468870	727.56	3.28	-459.67	0.0033	0.0033			0.04	0.03	0.01	0.01	24.96	Stack parameters were missing. Modeled as a pseudo-point source with release height of 1 m.
638063	HSI	162386	RN111040200		APAD43	718729	3468870	728.36	3.28	-459.67	0.0033	0.0033			0.14	0.13	0.02	0.02	25.28	Stack parameters were missing. Modeled as a pseudo-point source with release height of 1 m.
638064	VSI	162386	RN111040200		APAD44	718279	3468870	727.56	3.28	-459.67	0.0033	0.0033			0.07	0.04	0.01	0.01	24.96	Stack parameters were missing. Modeled as a pseudo-point source with release height of 1 m.
638065	SCREEN1-D	162386	RN111040200		APAD45	718279	3468870	727.56	3.28	-459.67	0.0033	0.0033			0.91	0.72	0.14	0.11	24.96	Stack parameters were missing. Modeled as a pseudo-point source with release height of 1 m.
638066	SCREEN2-D	162386	RN111040200		APAD46	718279	3468870	727.56	3.28	-459.67	0.0033	0.0033			0.26	0.23	0.04	0.03	24.96	Stack parameters were missing. Modeled as a pseudo-point source with release height of 1 m.
638067	SCREEN3-D	162386	RN111040200		APAD47	718279	3468870	727.56	3.28	-459.67	0.0033	0.0033			0.26	0.23	0.04	0.03	24.96	Stack parameters were missing. Modeled as a pseudo-point source with release height of 1 m.
638068	UNLOAD	162386	RN111040200		APAD48	718729	3468870	728.36	3.28	-459.67	0.0033	0.0033			0.01	0.01	0.01	0.01	25.28	Stack parameters were missing. Modeled as a pseudo-point source with release height of 1 m.
638069	LOAD	162386	RN111040200		APAD49	718729	3468870	728.36	3.28	-459.67	0.0033	0.0033			0.01	0.01	0.01	0.01	25.28	Stack parameters were missing. Modeled as a pseudo-point source with release height of 1 m.
638084	SCREW1-W	162386	RN111040200		APAD50	718279	3468870	727.56	3.28	-459.67	0.0033	0.0033			0.01	0.01	0.01	0.01	24.96	Stack parameters were missing. Modeled as a pseudo-point source with release height of 1 m.
638085	SCREW2-W	162386	RN111040200		APAD51	718279	3468870	727.56	3.28	-459.67	0.0033	0.0033			0.01	0.01	0.01	0.01	24.96	Stack parameters were missing. Modeled as a pseudo-point source with release height of 1 m.
638086	WASHER1-W	162386	RN111040200		APAD52	718279	3468870	727.56	3.28	-459.67	0.0033	0.0033			0.01	0.01	0.01	0.01	24.96	Stack parameters were missing. Modeled as a pseudo-point source with release height of 1 m.
638087	WASHER2-W	162386	RN111040200		APAD53	718279	3468870	727.56	3.28	-459.67	0.0033	0.0033			0.01	0.01	0.01	0.01	24.96	Stack parameters were missing. Modeled as a pseudo-point source with release height of 1 m.
638088	WASHER3-W	162386	RN111040200		APAD54	718279	3468870	727.56	3.28	-459.67	0.0033	0.0033			0.01	0.01	0.01	0.01	24.96	Stack parameters were missing. Modeled as a pseudo-point source with release height of 1 m.
638089	WASHER4-W	162386	RN111040200		APAD55	718279	3468870	727.56	3.28	-459.67	0.0033	0.0033			0.01	0.01	0.01	0.01	24.96	Stack parameters were missing. Modeled as a pseudo-point source with release height of 1 m.
638099	ENGINE	162386	RN111040200		APAD56	718279	3468870	727.56	6.40	801	140	0.6234	2.52	5.72	0.07	0.17	0.07	0.17	24.96	Stack parameters were missing. Revised using permitting files.
675309	GLY-5	46	RN100210087		APAD57	693124	3430003	871.26	3.28	-459.67	0.0033	0.0033	0.37	1.61	0.03	0.12	0.03	0.12	22.60	Stack parameters were missing. Modeled as a pseudo-point source with release height of 1 m.
675310	INCIN-1	46	RN100210087	STACK	APAD58	693138	3429929	870.79	100	1000	17	6	2.41	10.57	0.18	0.81	0.18	0.81	22.66	
684297	JAW	167535	RN111040200		APAD59	718279	3468870	727.56	3.28	-459.67	0.0033	0.0033			0.04	0.03	0.01	0.01	24.96	Stack parameters were missing. Modeled as a pseudo-point source with release height of 1 m.
684298	HSI	167535	RN111040200		APAD60	718729	3468870	728.36	3.28	-459.67	0.0033	0.0033			0.14	0.13	0.02	0.02	25.28	Stack parameters were missing. Modeled as a pseudo-point source with release height of 1 m.
684299	VSI	167535	RN111040200		APAD61	718279	3468870	727.56	3.28	-459.67	0.0033	0.0033			0.07	0.04	0.01	0.01	24.96	Stack parameters were missing. Modeled as a pseudo-point source with release height of 1 m.
684300	SCREEN1-D	167535	RN111040200		APAD62	718279	3468870	727.56	3.28	-459.67	0.0033	0.0033			0.91	0.72	0.14	0.11	24.96	Stack parameters were missing. Modeled as a pseudo-point source with release height of 1 m.
684301	SCREEN2-D	167535	RN111040200		APAD63	718279	3468870	727.56	3.28	-459.67	0.0033	0.0033			0.26	0.23	0.04	0.03	24.96	Stack parameters were missing. Modeled as a pseudo-point source with release height of 1 m.
684302	SCREEN3-D	167535	RN111040200		APAD64	718279	3468870	727.56	3.28	-459.67	0.0033	0.0033			0.26	0.23	0.04	0.03	24.96	Stack parameters were missing. Modeled as a pseudo-point source with release height of 1 m.

Off-Property Source Inventory

Site Location: 700489 3451366

ID Number	EPN	Permit No.	RN	Type	Model ID	Release Point UTM Easting	Release Point UTM Northing	Base Elevation	Stack Height	Temp.	Exit Velocity	Stack Diameter	Modeled Emission Rates						Distance	Notes
													1-Hour NOx	Annual NOx	24-Hour PM10	Annual PM10	24-Hour PM2.5	Annual PM2.5		
						(m)	(m)	(m)	(ft)	(F)	(ft/sec)	(ft)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(m)	
684303	UNLOAD	167535	RN111040200		APAD65	718729	3468870	728.36	3.28	-459.67	0.0033	0.0033			0.01	0.01	0.01	0.01	25.28	Stack parameters were missing. Modeled as a pseudo-point source with release height of 1 m.
684304	LOAD	167535	RN111040200		APAD66	718729	3468870	728.36	3.28	-459.67	0.0033	0.0033			0.01	0.01	0.01	0.01	25.28	Stack parameters were missing. Modeled as a pseudo-point source with release height of 1 m.
684319	SCREW1-W	167535	RN111040200		APAD67	718279	3468870	727.56	3.28	-459.67	0.0033	0.0033			0.01	0.01	0.01	0.01	24.96	Stack parameters were missing. Modeled as a pseudo-point source with release height of 1 m.
684320	SCREW2-W	167535	RN111040200		APAD68	718279	3468870	727.56	3.28	-459.67	0.0033	0.0033			0.01	0.01	0.01	0.01	24.96	Stack parameters were missing. Modeled as a pseudo-point source with release height of 1 m.
684321	WASHER1-W	167535	RN111040200		APAD69	718279	3468870	727.56	3.28	-459.67	0.0033	0.0033			0.01	0.01	0.01	0.01	24.96	Stack parameters were missing. Modeled as a pseudo-point source with release height of 1 m.
684322	WASHER2-W	167535	RN111040200		APAD70	718279	3468870	727.56	3.28	-459.67	0.0033	0.0033			0.01	0.01	0.01	0.01	24.96	Stack parameters were missing. Modeled as a pseudo-point source with release height of 1 m.
684323	WASHER3-W	167535	RN111040200		APAD71	718279	3468870	727.56	3.28	-459.67	0.0033	0.0033			0.01	0.01	0.01	0.01	24.96	Stack parameters were missing. Modeled as a pseudo-point source with release height of 1 m.
684324	WASHER4-W	167535	RN111040200		APAD72	718279	3468870	727.56	3.28	-459.67	0.0033	0.0033			0.01	0.01	0.01	0.01	24.96	Stack parameters were missing. Modeled as a pseudo-point source with release height of 1 m.
684334	ENGINE	167535	RN111040200		APAD73	718279	3468870	727.56	6.40	801	140	0.6234	2.52	5.72	0.07	0.17	0.07	0.17	24.96	Stack parameters were missing. Revised using permitting files.
721379	1	170000	RN111427860		APAD74	707562	3499502	819.66	3.28	-459.67	0.0033	0.0033			0.01	0.04	0.01	0.01	48.65	Stack parameters were missing. Modeled as a pseudo-point source with release height of 1 m.
734905	13	2351A	RN100239698	STACK	APAD75	691520	3452397	797.55	20	700	70	0.83	4.31	18.86	0.08	0.36	0.08	0.36	9.03	
734910	11	2351A	RN100239698	STACK	APAD76	691592	3452423	797.35	25	540	25	1.17	0.15	0.65	0.01	0.05	0.01	0.05	8.96	
734911	7	2351A	RN100239698	FLARE	APAD77	691681	3452422	797.14	100	1831.73	65.62	1.31	0.21	0.91					8.87	Effective flare diameter calculated.
734913	14	2351A	RN100239698	STACK	APAD78	691534	3452388	797.51	20	700	70	0.83	4.31	18.86	0.08	0.36	0.08	0.36	9.01	
734914	15	2351A	RN100239698	STACK	APAD79	691415	3452485	797.60	40	500	18	2	0.20	0.88	0.02	0.11	0.02	0.11	9.14	
734915	9	2351A	RN100239698	STACK	APAD80	691410	3452461	797.68	160	1000	22	4.5	21.93	83.40	0.78	3.43	0.78	3.48	9.14	
734919	4	2351A	RN100239698	FLARE	APAD81	691675	3452432	797.14	100	1831.73	65.62	12.93	0.01	0.10					8.88	Effective flare diameter calculated.
737054	2	71958	RN101980167		APAD82	684105	3462186	781.54	3.28	-459.67	0.0033	0.0033				0.61		0.04	19.63	Stack parameters were missing. Modeled as a pseudo-point source with release height of 1 m.
753961	600	73438	RN102526761	STACK	APAD83	682488	3461128	786.56	12	800	95	2.17	141.09	617.99	0.30	1.31	0.30	1.31	20.48	MAERT is missing PM2.5 emissions. Added PM2.5 emissions to inventory.
753962	601	73438	RN102526761	STACK	APAD84	682478	3461128	786.59	12	800	95	2.17	141.09	617.99	0.30	1.31	0.30	1.31	20.49	MAERT is missing PM2.5 emissions. Added PM2.5 emissions to inventory.
766402	PB-EDGS	9659	RN102183969	STACK	APAD85	693532	3495907	806.92	50	700	72	1	0.30	1.32	1.48	0.04	1.48	0.04	45.08	Intermittent source. 1-hour NOx emission rate adjusted based on 52 hrs/yr operation.
766403	PB-CTS1	9659	RN102183969	STACK	APAD86	693585	3496020	806.55	60	700	70	20	376.00	1410.00	51.80	194.00	51.80	194.00	45.18	Revised release height per permitting files.
766404	PB-CTS2	9659	RN102183969	STACK	APAD87	693613	3496033	806.34	60	700	70	20	376.00	1410.00	51.80	194.00	51.80	194.00	45.19	Revised release height per permitting files.
766405	PB-CTS3	9659	RN102183969	STACK	APAD88	693645	3496041	806.43	60	700	70	20	376.00	1410.00	51.80	194.00	51.80	194.00	45.20	Revised release height per permitting files.
766406	PB-CTS4	9659	RN102183969	STACK	APAD89	693677	3496046	805.99	60	700	70	20	376.00	1410.00	51.80	194.00	51.80	194.00	45.20	Revised release height per permitting files.
766407	PB-CTS5	9659	RN102183969	STACK	APAD90	693705	3496062	803.88	60	570	70	12	376.00	1410.00	51.80	194.00	51.80	194.00	45.21	Revised release height per permitting files.
766408	MSS-FUG	9659	RN102183969		APAD91	693448	3496155	806.53	3.28	-459.67	0.0033	0.0033			0.01	0.01	0.01	0.01	45.34	Stack parameters were missing. Modeled as a pseudo-point source with release height of 1 m.
767517	TEGREB	74857	RN100211408		APAD92	682132	3460938	787.71	3.28	-459.67	0.0033	0.0033	0.01	0.04					20.70	Stack parameters were missing. Modeled as a pseudo-point source with release height of 1 m.
767518	70	74857	RN100211408		APAD93	682132	3460938	787.71	3.28	-459.67	0.0033	0.0033	1.10	0.07					20.70	Stack parameters were missing. Modeled as a pseudo-point source with release height of 1 m.

= Input parameter modified by TRC (either inaccurate or missing)

Attachment C
Summary of PSD Modeling Files

The following input and output files are being provided electronically to the TCEQ for review via the TCEQ File Transfer Protocol (FTP) secure site.

METEOROLOGICAL FILES

The meteorological files (*.sfc and *.pfl) listed in Table C-1 were obtained from TCEQ and used in the modeling.

Table C-1 AERMOD Input Meteorological Files

File Name	Description
PECOS_FSTDRT17M.SFC	Surface meteorological data for 2017 – Medium Surface Roughness
PECOS_FSTDRT18M.SFC	Surface meteorological data for 2018 – Medium Surface Roughness
PECOS_FSTDRT19M.SFC	Surface meteorological data for 2019 – Medium Surface Roughness
PECOS_FSTDRT20M.SFC	Surface meteorological data for 2020 – Medium Surface Roughness
PECOS_FSTDRT21M.SFC	Surface meteorological data for 2021 – Medium Surface Roughness
PECOS_FSTDRT17M.PFL	Profile meteorological data for 2017 – Medium Surface Roughness
PECOS_FSTDRT18M.PFL	Profile meteorological data for 2018 – Medium Surface Roughness
PECOS_FSTDRT19M.PFL	Profile meteorological data for 2019 – Medium Surface Roughness
PECOS_FSTDRT20M.PFL	Profile meteorological data for 2020 – Medium Surface Roughness
PECOS_FSTDRT21M.PFL	Profile meteorological data for 2021 – Medium Surface Roughness

NATIONAL LAND COVER DATABASE (NLCD) FILES

The NLCD files listed in Table C-2 were downloaded from the EPA's FTP site (https://gaftp.epa.gov/Air/aqmg/nlcd/2011-2021_2021ed/2021/) and used by AERSURFACE to determine the appropriate surface roughness.

Table C-2 AERSURFACE Input National Land Cover Database (NLCD) Files

File Name	Description
2021_R06_TX-West_Land_Cover.TIF	2021 NLCD Land Cover File
2021_R06_TX-West_Impervious.TIF	2021 NLCD Impervious File
2021_R06_TX-West_Canopy.TIF	2021 NLCD Tree Canopy File

AERMOD DISPERSION MODELING FILES

AERMOD version 24142 was used for all modeling analyses using Providence/Oris LLC's "BEE-Line BEEST for Windows" graphic user interface (Version 12.13). Each BEEST model run generates a .DTA, .GRF, .LST, and .SUM file. Results for each modeling run are contained in the .SUM files. Tables C-3 through C-6 provide the name and purpose of each PSD modeling run. The site downwash files (.PIP, .PRW, .SO, .SUM, and .TAB) are listed in Table C-7.

Table C-3 Model File Names – SIL Analysis for NAAQS & PSD Class II Increments

File Name	Pollutant & Averaging Time	Met Years
Pacifico_2017-2021_01CO	CO 1-hour	2017-2021
Pacifico_2017-2021_08CO	CO 8-hour	2017-2021
Pacifico_2017-2021_NO2	NO2 1-hour	2017-2021
Pacifico_2017_99NO2	NO2 Annual	2017
Pacifico_2018_99NO2	NO2 Annual	2018
Pacifico_2019_99NO2	NO2 Annual	2019
Pacifico_2020_99NO2	NO2 Annual	2020
Pacifico_2021_99NO2	NO2 Annual	2021
Pacifico_2017-2021_SO2	SO2 1-hour	2017-2021
Pacifico_2017-2021_03SO2	SO2 3-hour	2017-2021
Pacifico_2017-2021_24SO2	SO2 24-hour	2017-2021
Pacifico_2017_99SO2	SO2 Annual	2017
Pacifico_2018_99SO2	SO2 Annual	2018
Pacifico_2019_99SO2	SO2 Annual	2019
Pacifico_2020_99SO2	SO2 Annual	2020
Pacifico_2021_99SO2	SO2 Annual	2021
Pacifico_2017-2021_PM10	PM10 24-hour	2017-2021
Pacifico_2017_99PM10	PM10 Annual	2017
Pacifico_2018_99PM10	PM10 Annual	2018
Pacifico_2019_99PM10	PM10 Annual	2019
Pacifico_2020_99PM10	PM10 Annual	2020
Pacifico_2021_99PM10	PM10 Annual	2021
Pacifico_2017-2021_PM2.5	PM2.5 24-hour	2017-2021
Pacifico_2017_PM2.5	PM2.5 24-hour	2017
Pacifico_2018_PM2.5	PM2.5 24-hour	2018

File Name	Pollutant & Averaging Time	Met Years
Pacifico_2019_PM2.5	PM2.5 24-hour	2019
Pacifico_2020_PM2.5	PM2.5 24-hour	2020
Pacifico_2021_PM2.5	PM2.5 24-hour	2021
Pacifico_2017-2021_99PM2.5	PM2.5 Annual	2017-2021
Pacifico_2017_99PM2.5	PM2.5 Annual	2017
Pacifico_2018_99PM2.5	PM2.5 Annual	2018
Pacifico_2019_99PM2.5	PM2.5 Annual	2019
Pacifico_2020_99PM2.5	PM2.5 Annual	2020
Pacifico_2021_99PM2.5	PM2.5 Annual	2021

Table C-4 Model File Names – Cumulative Modeling Analysis

File Name	Pollutant & Averaging Time	Met Years
PacificoPSD_2017-2021_NO2	NO_2 1-hour	2017-2021
PacificoPSD_2017_99NO2	NO_2 Annual	2017
PacificoPSD_2018_99NO2	NO_2 Annual	2018
PacificoPSD_2019_99NO2	NO_2 Annual	2019
PacificoPSD_2020_99NO2	NO_2 Annual	2020
PacificoPSD_2021_99NO2	NO_2 Annual	2021
PacificoPSD_2017-2021_PM10	PM_{10} 24-hour	2017-2021
PacificoPSD_2017-2021_PM2.5	$PM_{2.5}$ 24-hour	2017-2021
PacificoPSD_2017_PM2.5	$PM_{2.5}$ 24-hour	2017
PacificoPSD_2018_PM2.5	$PM_{2.5}$ 24-hour	2018
PacificoPSD_2019_PM2.5	$PM_{2.5}$ 24-hour	2019
PacificoPSD_2020_PM2.5	$PM_{2.5}$ 24-hour	2020
PacificoPSD_2021_PM2.5	$PM_{2.5}$ 24-hour	2021
PacificoPSD_2017-2021_99PM2.5	$PM_{2.5}$ Annual	2017-2021
PacificoPSD_2017_99PM2.5	$PM_{2.5}$ Annual	2017
PacificoPSD_2018_99PM2.5	$PM_{2.5}$ Annual	2018
PacificoPSD_2019_99PM2.5	$PM_{2.5}$ Annual	2019
PacificoPSD_2020_99PM2.5	$PM_{2.5}$ Annual	2020
PacificoPSD_2021_99PM2.5	$PM_{2.5}$ Annual	2021

Table C-5 Model File Names – SIL Analysis for PSD Class I Increment at 50 km

File Name	Pollutant & Averaging Time	Met Years	Receptor Elevation
Pacifico_2017_99NO2_C1_50KM_MAX	NO_2 Annual	2017	Maximum
Pacifico_2017_99NO2_C1_50KM_MED	NO_2 Annual	2017	Median
Pacifico_2017_99NO2_C1_50KM_MIN	NO_2 Annual	2017	Minimum
Pacifico_2018_99NO2_C1_50KM_MAX	NO_2 Annual	2018	Maximum
Pacifico_2018_99NO2_C1_50KM_MED	NO_2 Annual	2018	Median
Pacifico_2018_99NO2_C1_50KM_MIN	NO_2 Annual	2018	Minimum
Pacifico_2019_99NO2_C1_50KM_MAX	NO_2 Annual	2019	Maximum
Pacifico_2019_99NO2_C1_50KM_MED	NO_2 Annual	2019	Median
Pacifico_2019_99NO2_C1_50KM_MIN	NO_2 Annual	2019	Minimum
Pacifico_2020_99NO2_C1_50KM_MAX	NO_2 Annual	2020	Maximum
Pacifico_2020_99NO2_C1_50KM_MED	NO_2 Annual	2020	Median
Pacifico_2020_99NO2_C1_50KM_MIN	NO_2 Annual	2020	Minimum
Pacifico_2021_99NO2_C1_50KM_MAX	NO_2 Annual	2021	Maximum
Pacifico_2021_99NO2_C1_50KM_MED	NO_2 Annual	2021	Median
Pacifico_2021_99NO2_C1_50KM_MIN	NO_2 Annual	2021	Minimum
Pacifico_2017-2021_03SO2_C1_50KM_MAX	SO_2 3-hour	2017-2021	Maximum
Pacifico_2017-2021_03SO2_C1_50KM_MED	SO_2 3-hour	2017-2021	Median
Pacifico_2017-2021_03SO2_C1_50KM_MIN	SO_2 3-hour	2017-2021	Minimum
Pacifico_2017-2021_24SO2_C1_50KM_MAX	SO_2 24-hour	2017-2021	Maximum
Pacifico_2017-2021_24SO2_C1_50KM_MED	SO_2 24-hour	2017-2021	Median
Pacifico_2017-2021_24SO2_C1_50KM_MIN	SO_2 24-hour	2017-2021	Minimum
Pacifico_2017_99SO2_C1_50KM_MAX	SO_2 Annual	2017	Maximum
Pacifico_2017_99SO2_C1_50KM_MED	SO_2 Annual	2017	Median
Pacifico_2017_99SO2_C1_50KM_MIN	SO_2 Annual	2017	Minimum
Pacifico_2018_99SO2_C1_50KM_MAX	SO_2 Annual	2018	Maximum
Pacifico_2018_99SO2_C1_50KM_MED	SO_2 Annual	2018	Median
Pacifico_2018_99SO2_C1_50KM_MIN	SO_2 Annual	2018	Minimum
Pacifico_2019_99SO2_C1_50KM_MAX	SO_2 Annual	2019	Maximum
Pacifico_2019_99SO2_C1_50KM_MED	SO_2 Annual	2019	Median
Pacifico_2019_99SO2_C1_50KM_MIN	SO_2 Annual	2019	Minimum
Pacifico_2020_99SO2_C1_50KM_MAX	SO_2 Annual	2020	Maximum

File Name	Pollutant & Averaging Time	Met Years	Receptor Elevation
Pacifico_2020_99SO2_C1_50KM_MED	SO_2 Annual	2020	Median
Pacifico_2020_99SO2_C1_50KM_MIN	SO_2 Annual	2020	Minimum
Pacifico_2021_99SO2_C1_50KM_MAX	SO_2 Annual	2021	Maximum
Pacifico_2021_99SO2_C1_50KM_MED	SO_2 Annual	2021	Median
Pacifico_2021_99SO2_C1_50KM_MIN	SO_2 Annual	2021	Minimum
Pacifico_2017-2021_PM10_C1_50KM_MAX	PM_{10} 24-hour	2017-2021	Maximum
Pacifico_2017-2021_PM10_C1_50KM_MED	PM_{10} 24-hour	2017-2021	Median
Pacifico_2017-2021_PM10_C1_50KM_MIN	PM_{10} 24-hour	2017-2021	Minimum
Pacifico_2017_99PM10_C1_50KM_MAX	PM_{10} Annual	2017	Maximum
Pacifico_2017_99PM10_C1_50KM_MED	PM_{10} Annual	2017	Median
Pacifico_2017_99PM10_C1_50KM_MIN	PM_{10} Annual	2017	Minimum
Pacifico_2018_99PM10_C1_50KM_MAX	PM_{10} Annual	2018	Maximum
Pacifico_2018_99PM10_C1_50KM_MED	PM_{10} Annual	2018	Median
Pacifico_2018_99PM10_C1_50KM_MIN	PM_{10} Annual	2018	Minimum
Pacifico_2019_99PM10_C1_50KM_MAX	PM_{10} Annual	2019	Maximum
Pacifico_2019_99PM10_C1_50KM_MED	PM_{10} Annual	2019	Median
Pacifico_2019_99PM10_C1_50KM_MIN	PM_{10} Annual	2019	Minimum
Pacifico_2020_99PM10_C1_50KM_MAX	PM_{10} Annual	2020	Maximum
Pacifico_2020_99PM10_C1_50KM_MED	PM_{10} Annual	2020	Median
Pacifico_2020_99PM10_C1_50KM_MIN	PM_{10} Annual	2020	Minimum
Pacifico_2021_99PM10_C1_50KM_MAX	PM_{10} Annual	2021	Maximum
Pacifico_2021_99PM10_C1_50KM_MED	PM_{10} Annual	2021	Median
Pacifico_2021_99PM10_C1_50KM_MIN	PM_{10} Annual	2021	Minimum
Pacifico_2017_PM2.5_C1_50KM_MAX	$PM_{2.5}$ 24-hour	2017	Maximum
Pacifico_2017_PM2.5_C1_50KM_MED	$PM_{2.5}$ 24-hour	2017	Median
Pacifico_2017_PM2.5_C1_50KM_MIN	$PM_{2.5}$ 24-hour	2017	Minimum
Pacifico_2018_PM2.5_C1_50KM_MAX	$PM_{2.5}$ 24-hour	2018	Maximum
Pacifico_2018_PM2.5_C1_50KM_MED	$PM_{2.5}$ 24-hour	2018	Median
Pacifico_2018_PM2.5_C1_50KM_MIN	$PM_{2.5}$ 24-hour	2018	Minimum
Pacifico_2019_PM2.5_C1_50KM_MAX	$PM_{2.5}$ 24-hour	2019	Maximum
Pacifico_2019_PM2.5_C1_50KM_MED	$PM_{2.5}$ 24-hour	2019	Median
Pacifico_2019_PM2.5_C1_50KM_MIN	$PM_{2.5}$ 24-hour	2019	Minimum

File Name	Pollutant & Averaging Time	Met Years	Receptor Elevation
Pacifico_2020_PM2.5_C1_50KM_MAX	$PM_{2.5}$ 24-hour	2020	Maximum
Pacifico_2020_PM2.5_C1_50KM_MED	$PM_{2.5}$ 24-hour	2020	Median
Pacifico_2020_PM2.5_C1_50KM_MIN	$PM_{2.5}$ 24-hour	2020	Minimum
Pacifico_2021_PM2.5_C1_50KM_MAX	$PM_{2.5}$ 24-hour	2021	Maximum
Pacifico_2021_PM2.5_C1_50KM_MED	$PM_{2.5}$ 24-hour	2021	Median
Pacifico_2021_PM2.5_C1_50KM_MIN	$PM_{2.5}$ 24-hour	2021	Minimum
Pacifico_2017_99PM2.5_C1_50KM_MAX	$PM_{2.5}$ Annual	2017	Maximum
Pacifico_2017_99PM2.5_C1_50KM_MED	$PM_{2.5}$ Annual	2017	Median
Pacifico_2017_99PM2.5_C1_50KM_MIN	$PM_{2.5}$ Annual	2017	Minimum
Pacifico_2018_99PM2.5_C1_50KM_MAX	$PM_{2.5}$ Annual	2018	Maximum
Pacifico_2018_99PM2.5_C1_50KM_MED	$PM_{2.5}$ Annual	2018	Median
Pacifico_2018_99PM2.5_C1_50KM_MIN	$PM_{2.5}$ Annual	2018	Minimum
Pacifico_2019_99PM2.5_C1_50KM_MAX	$PM_{2.5}$ Annual	2019	Maximum
Pacifico_2019_99PM2.5_C1_50KM_MED	$PM_{2.5}$ Annual	2019	Median
Pacifico_2019_99PM2.5_C1_50KM_MIN	$PM_{2.5}$ Annual	2019	Minimum
Pacifico_2020_99PM2.5_C1_50KM_MAX	$PM_{2.5}$ Annual	2020	Maximum
Pacifico_2020_99PM2.5_C1_50KM_MED	$PM_{2.5}$ Annual	2020	Median
Pacifico_2020_99PM2.5_C1_50KM_MIN	$PM_{2.5}$ Annual	2020	Minimum
Pacifico_2021_99PM2.5_C1_50KM_MAX	$PM_{2.5}$ Annual	2021	Maximum
Pacifico_2021_99PM2.5_C1_50KM_MED	$PM_{2.5}$ Annual	2021	Median
Pacifico_2021_99PM2.5_C1_50KM_MIN	$PM_{2.5}$ Annual	2021	Minimum

Table C-6 Model File Names – SIL Analysis for PSD Class I Increment at 160 km

File Name	Pollutant & Averaging Time	Met Years	Receptor Elevation
Pacifico_2017_PM2.5_C1_160KM_MAX	$PM_{2.5}$ 24-hour	2017	Maximum
Pacifico_2017_PM2.5_C1_160KM_MED	$PM_{2.5}$ 24-hour	2017	Median
Pacifico_2017_PM2.5_C1_160KM_MIN	$PM_{2.5}$ 24-hour	2017	Minimum
Pacifico_2018_PM2.5_C1_160KM_MAX	$PM_{2.5}$ 24-hour	2018	Maximum
Pacifico_2018_PM2.5_C1_160KM_MED	$PM_{2.5}$ 24-hour	2018	Median
Pacifico_2018_PM2.5_C1_160KM_MIN	$PM_{2.5}$ 24-hour	2018	Minimum
Pacifico_2019_PM2.5_C1_160KM_MAX	$PM_{2.5}$ 24-hour	2019	Maximum
Pacifico_2019_PM2.5_C1_160KM_MED	$PM_{2.5}$ 24-hour	2019	Median
Pacifico_2019_PM2.5_C1_160KM_MIN	$PM_{2.5}$ 24-hour	2019	Minimum
Pacifico_2020_PM2.5_C1_160KM_MAX	$PM_{2.5}$ 24-hour	2020	Maximum
Pacifico_2020_PM2.5_C1_160KM_MED	$PM_{2.5}$ 24-hour	2020	Median
Pacifico_2020_PM2.5_C1_160KM_MIN	$PM_{2.5}$ 24-hour	2020	Minimum
Pacifico_2021_PM2.5_C1_160KM_MAX	$PM_{2.5}$ 24-hour	2021	Maximum
Pacifico_2021_PM2.5_C1_160KM_MED	$PM_{2.5}$ 24-hour	2021	Median
Pacifico_2021_PM2.5_C1_160KM_MIN	$PM_{2.5}$ 24-hour	2021	Minimum

Table C-7 Site Downwash Files

File Name	File Extensions	Description
downwash	.PIP, .PRW, .SO, .SUM, and .TAB	Downwash input and output files

Attachment D
TCEQ Electronic Modeling Evaluation Workbook

Texas Commission on Environmental Quality

Electronic Modeling Evaluation Workbook (EMEW)

General

Date: 8/3/2025
Permit #: TBD
Company Name: Pacifico GW LLC

Acknowledgement:	Select from the dropdown:
I acknowledge that I am submitting an authorized TCEQ Electronic Modeling Evaluation Workbook and any necessary attachments. Except for inputting the requested data, I have not changed the TCEQ Electronic Modeling Evaluation Workbook in any way, including but not limited to changing formulas, formatting, content, or protections.	I agree

Administrative Information:	
Data Type:	**Facility Information:**
Project Number (6 digits):	
Permit Number(s):	TBD
Regulated Entity ID (9 digits):	
Facility Name:	GW Ranch Energy Center
Facility Address:	N/A
Facility County:	Pecos
Company Name:	Pacifico GW LLC
Company Contact Name:	Constantyn Gieskes
Company Contact Number:	(949) 481-8200
Company Contact Email:	constantyn@pacificoenergy.com
Modeling Company Name, as applicable:	TRC Environmental Corporation
Modeling Contact Name:	Chris Kossegi
Modeling Contact Number:	(512) 684-3414
Modeling Contact Email:	ckossegi@trccompanies.com
New/Existing Site:	New site
Initial modeling or final modeling submittal?	Initial modeling
Modeling files included with application submittal (optional)?	Yes
Modeling Date (MM/DD/YYYY or MM-DD-YYYY):	08/01/2025
Datum Used:	NAD 83
Universal Transverse Mercator (UTM) Zone:	13

Table of Contents:	
Section Instructions: Indicate in the Table of Contents which sections are applicable and included for this modeling demonstration. Select "X" from the dropdown if the item below is included in the workbook.	
Sheet Title (Click to jump to specific sheet):	**Select "X" from the dropdown if included:**
General	X
Model Options	X
Building Downwash	X
Flare Source Parameters	
Point Source Parameters	X
Area Source Parameters	X
Volume Source Calculations	
Volume Source Parameters	
Modeling Scenarios	X
Modeled Source Groups	

Texas Commission on Environmental Quality

Electronic Modeling Evaluation Workbook (EMEW)

General

Date: 8/3/2025
Permit #: TBD
Company Name: Pacifico GW LLC

Flare & Point Source Emissions	X
Area Source Emissions	X
Volume Source Emissions	
Intermittent Sources	
Speciated Chemicals	X
Speciated Emissions	X
Summary of Emissions	Sheet automatically generated
Monitor Calculations	
Background Justification	
Secondary Formation of PM2.5	
NAAQS/State Property Line (SPL) Modeling Results	X
Unit Impact Multipliers	
Health Effects Modeling Results	X
Modeling File Names	X

Texas Commission on Environmental Quality

Electronic Modeling Evaluation Workbook (EMEW)

General

Date: 8/3/2025
Permit #: TBD
Company Name: Pacifico GW LLC

Required Attachments:	
Notes: 1. The following are attachments that must be included with any modeling analysis. 2. If providing the plot plan and area map with the permit application, ensure there is also a copy with the EMEW. 3. For larger properties or dense source areas, provide multiple zoomed-in plot plans that are legible. 4. All plot plans and area maps should not be marked as confidential.	
Required Attachments	**Select "X" from the dropdown**
Is a Plot Plan attached? Make sure all property/fence lines are visible and marked, all modeled sources and buildings are clearly labeled, and a north arrow and clearly marked scale are included.	X
Is an Area Map attached? Include all property lines, annotate schools within 3,000 ft of the nearest property line, and identify all non-industrial receptors.	X

Additional Attachments (as applicable):	
Notes: 1. These are a few examples of attachments that may need to be included. There may be others depending on the scope of the modeling analysis. 2. Information provided in the EMEW does not need to be provided or duplicated in an additional or supplemental attachment. Additional and supplemental attachments are for information that cannot fit in an EMEW. 3. All essential supplemental and/or additional attachments should not be marked as confidential.	
Site Specific Processed Met Data Information	**Select "X" from the dropdown if included:**
Raw data files (ASOS, surface, and upper air).	
Pre-processor input and output files (AERMINUTE and AERSURFACE).	
AERMET input and output files (all stages).	
AERMOD/AERSCREEN ready files (surface and upper air).	
Modeling Techniques and Scenarios Provide all justification and discussion on modeling scenarios used for the modeling analyses. Below are examples of approaches that may be provided as justification.	**Select "X" from the dropdown if included:**
Discussion on modeling techniques not discussed in workbook.	
Justification for exceedance refinements, as applicable.	
Discussion and images for worst-case determination, as applicable.	
Single Property Line Designation (SPLD), as applicable	**Select "X" from the dropdown if included:**
Include the most recent agreement, order, and map defining each petitioner.	
Post Processing using Unit Impact Multipliers (UIMs)	**Select "X" from the dropdown if included:**

Include documentation on any calculations used with the UIMs (i.e., Step 3 of the Modeling and Effects Review Applicability [MERA] guidance). It is highly recommended to provide the UIM calculations in an Excel Spreadsheet format (do not lock cells or reference local drives).	
Tier 3 NO_2 analysis If OLM, PVMRM, or GRSM are used, provide all justification and documentation on using the approach. Note the use of the Tier 3 modeling option must be approved prior to the final modeling submittal.	**Select "X" from the dropdown if included:**
Description of model setup.	
Description and justification of model options selected (i.e., NO_X to NO_2 in-stack ratios).	
Raw monitoring data and any associated calculations in Excel spreadsheet format (do not lock cells or reference local drives).	
Other Attachments	**Select "X" from the dropdown if included:**
Replace this text with the title(s) of the additional attachment(s) being provided that are not listed above.	

Texas Commission on Environmental Quality

Electronic Modeling Evaluation Workbook (EMEW)

Model Options

Date: 8/3/2025
Permit #: TBD

Company Name: Pacifico GW LLC

I. Project Information	
A. Project Overview: Give a brief project overview. To type or insert text, double click in the cell (response limited to 2000 characters).	Construction of new simple cycle electric generating plant at a greenfield site.

II. Air Dispersion Modeling Preliminary Information

Instructions: Fill in the information below based on the modeling setup. The selections chosen in this sheet will carry throughout the sheet and workbook. Based on selections below, only portions of the sheet and workbook will be available. Therefore, it is vital the sheet and workbook are filled out in order. Do not skip around.

For larger text boxes, double click to type or insert text.

A. Type of Model Used:

Type	Select "X" in all that apply
AERMOD	X
AERSCREEN	
Enter in all applicable Model Version(s)	24142

B. Building Downwash:

Requested Information	Response
Is building downwash applicable? Select "Yes" if a volume source will be located on or adjacent to a structure.	Yes
Enter BPIP version (AERMOD and ISCPrime only)	4274

C. Type of Analyses:

Type	Select "X" in all that apply
Minor NSR National Ambient Air Quality Standards (NAAQS)	
Health Effects	X
State Property Line	X
*PSD projects should submit a protocol or AQA report and not utilize this form.	-

D. Constituents Evaluating:

Texas Commission on Environmental Quality

Electronic Modeling Evaluation Workbook (EMEW)

Model Options

Date: 8/3/2025
Permit #: TBD
Company Name: Pacifico GW LLC

State Property Line Pollutants	Select "X" for all pollutants that apply
H_2S	X
H_2SO_4	X
SO_2	X

Health Effects: Fill in the Speciated Emissions sheet with all applicable pollutants, CAS numbers, and ESLs.

Texas Commission on Environmental Quality

Electronic Modeling Evaluation Workbook (EMEW)

Model Options

Date: 8/3/2025
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Company Name: Pacifico GW LLC

E. Dispersion Options:	
Requested information	**Response**
Select a dispersion option:	Rural
Provide justification on the dispersion option selected above (response limited to 500 characters).	Not located in an urban area.

F. Determination of Surface Roughness: If AERSCREEN or AERMOD is used, fill out the section below.	
Requested information	**Response**
Select basis for surface roughness:	AERSURFACE
If the applicant is using AERSURFACE, complete this section	**Response**
AERSURFACE Version Number	24142
Center UTM Easting (m)	700000
Center UTM Northing (m)	3452000
National Land Cover Database (NLCD) Land Cover (year)	2021
NLCD Impervious Surface (year) Land Cover data should not be supplemented with Impervious Surface data only or Tree Canopy data only, or with inconsistent years of data.	2021
NLCD Tree Canopy (year) Land Cover data should not be supplemented with Impervious Surface data only or Tree Canopy data only, or with inconsistent years of data.	2021
Study Radius (km)	1
Airport?	No
Continuous Snow Cover	No
Surface Moisture	Average
Arid Region?	No
Month/Season Assignment	Default
Surface Roughness Length [Z_o] (m)	0.26

Texas Commission on Environmental Quality

Electronic Modeling Evaluation Workbook (EMEW)

Model Options

Date: 8/3/2025
Permit #: TBD

Company Name: Pacifico GW LLC

G. Meteorological Data:	
If AERMOD or ISC/ISCPrime are selected, complete this section	**Response**
Surface Station (4-5 digits)	23091
Upper Air Station (4-5 digits)	22010
Profile Base Elevation, AERMOD only (m)	917
AERMET Version Number	22112
Was TCEQ pre-processed data used?	Yes
Select the TCEQ pre-processed data surface roughness category:	Medium
Enter the year(s) selected for this meteorological data	**Response**
1 Year (yyyy)	2020
5 Years	N/A
Which analysis(es) relied on 1 year?	State Property Line and State Health Effects
Which analysis(es) relied on 5 years?	N/A
Provide any other justification for section G. Meteorological Data, as applicable (response limited to 500 characters). Additional information can be provided as an attachment to the EMEW.	TCEQ's "medium" dataset was used as AERSURFACE provided a surface roughness value of 0.260.

Texas Commission on Environmental Quality

Electronic Modeling Evaluation Workbook (EMEW)

Model Options

Date: 8/3/2025
Permit #: TBD

Company Name: Pacifico GW LLC

H. Receptor Grid:

For AERMOD or ISC/ISCPrime, fill in the following information on the modeled receptor grid. Note: Receptor grid resolution (tight, fine, medium, coarse) are based on recommended receptor grid spacing per the AQMG. If something outside of this is used, fully describe it below. Also, consider secondary contributions when determining significant receptors for $PM_{2.5}$. See Note 2 on the Secondary Formation of $PM_{2.5}$ sheet for more information.

Parameter	Value
Tight Receptor Spacing (m) (Per Appendix M of the AQMG, 25 meter spacing is recommended for tight receptor spacing.)	25 m
Tight Receptor Distance (m) (Per Appendix M of the AQMG, tight receptor spacing could extend up to 200-300 meters from the sources being evaluated.)	300 m (see note below)
Fine Receptor Spacing (m) (Per Appendix M of the AQMG, 100 meter spacing is recommended for fine receptor spacing.)	100 m
Fine Receptor Distance (m) (Per Appendix M of the AQMG, fine receptors could extend one kilometer from the sources being evaluated.)	1 km
Medium Receptor Spacing (m) (Per Appendix M of the AQMG, 500 meter spacing is recommended for medium receptor spacing, as applicable.)	500 m
Medium Receptor Distance (m) (Per Appendix M of the AQMG, medium receptors could extend from one to five kilometers from the sources being evaluated.)	5 km
Coarse Receptor Spacing (m) (Per Appendix M of the AQMG, 1 kilometer spacing is recommended for coarse receptor spacing, as applicable.)	1,000 m
Coarse Receptor Distance (m) (Per Appendix M of the AQMG, course receptors could extend out to 50 km, as needed.)	50 km
Describe any other receptor grid designs or locations of interest (e.g., significant receptors, over water, GLCni, SPLD, etc.) (response limited to 1500 characters).	Note: Due to the size of the facility and distance from the sources to the fence line, the tight receptor grid (receptors spaced every 25 m, extending out to 300 m) was generated only in areas closest to the sources. Receptors were still placed every 25 m along entire the fence line. Pacifico believes that the receptor grid as described above is sufficient to capture the maximum predicted concentrations.

I. Terrain:

Requested Information	Response
Select the terrain option being modeled:	Elevated
AERMAP Version	24142
Provide additional justification for the selected terrain option, if applicable (response limited to 500 characters).	

Texas Commission on Environmental Quality

Electronic Modeling Evaluation Workbook (EMEW)

Building Downwash

Date: 8/3/2025
Permit #: TBD
Company Name: Pacifico GW LLC

Downwash Type	Modeled Building ID	Tank Diameter (m)	Number of Tiers	Maximum Height (m)	Tier 1 Height (m)
Building	DATA01		1	9.144	9.14
Building	DATA02		1	9.144	9.14
Building	DATA03		1	9.144	9.14
Building	DATA04		1	9.144	9.14
Building	DATA05		1	9.144	9.14
Building	DATA06		1	9.144	9.14
Building	DATA07		1	9.144	9.14
Building	DATA08		1	9.144	9.14
Building	DATA09		1	9.144	9.14
Building	DATA10		1	9.144	9.14
Building	DATA11		1	9.144	9.14
Building	DATA12		1	9.144	9.14
Building	DATA13		1	9.144	9.14
Building	DATA14		1	9.144	9.14
Building	DATA15		1	9.144	9.14
Building	DATA16		1	9.144	9.14
Building	DATA17		1	9.144	9.14
Building	DATA18		1	9.144	9.14
Building	DATA19		1	9.144	9.14
Building	DATA20		1	9.144	9.14
Building	DATA21		1	9.144	9.14
Building	DATA22		1	9.144	9.14
Building	DATA23		1	9.144	9.14
Building	DATA24		1	9.144	9.14
Building	DATA25		1	9.144	9.14
Building	TURB01A		1	10.668	10.67
Building	TURB02A		1	10.668	10.67
Building	TURB03A		1	10.668	10.67
Building	TURB04A		1	10.668	10.67
Building	TURB05A		1	10.668	10.67
Building	TURB06A		1	10.668	10.67
Building	TURB07A		1	10.668	10.67
Building	TURB08A		1	10.668	10.67
Building	TURB09A		1	10.668	10.67
Building	TURB10A		1	10.668	10.67

Texas Commission on Environmental Quality

Electronic Modeling Evaluation Workbook (EMEW)

Building Downwash

Date: 8/3/2025
Permit #: TBD
Company Name: Pacifico GW LLC

Downwash Type	Modeled Building ID	Tank Diameter (m)	Number of Tiers	Maximum Height (m)	Tier 1 Height (m)
Building	TURB11A		1	10.668	10.67
Building	TURB12A		1	10.668	10.67
Building	TURB13A		1	10.668	10.67
Building	TURB14A		1	10.668	10.67
Building	TURB15A		1	10.668	10.67

Texas Commission on Environmental Quality

Electronic Modeling Evaluation Workbook (EMEW)

Building Downwash

Date: 8/3/2025
Permit #: TBD
Company Name: Pacifico GW LLC

Downwash Type	Modeled Building ID	Tank Diameter (m)	Number of Tiers	Maximum Height (m)	Tier 1 Height (m)
Building	TURB16A		1	10.668	10.67
Building	TURB17A		1	10.668	10.67
Building	TURB18A		1	10.668	10.67
Building	TURB19A		1	10.668	10.67
Building	TURB20A		1	10.668	10.67
Building	TURB21A		1	10.668	10.67
Building	TURB01B		1	12.192	12.19
Building	TURB02B		1	12.192	12.19
Building	TURB03B		1	12.192	12.19
Building	TURB04B		1	12.192	12.19
Building	TURB05B		1	12.192	12.19
Building	TURB06B		1	12.192	12.19
Building	TURB07B		1	12.192	12.19
Building	TURB08B		1	12.192	12.19
Building	TURB09B		1	12.192	12.19
Building	TURB10B		1	12.192	12.19
Building	TURB11B		1	12.192	12.19
Building	TURB12B		1	12.192	12.19
Building	TURB13B		1	12.192	12.19
Building	TURB14B		1	12.192	12.19
Building	ENGSUP1		1	6.2484	6.25
Building	ENGSUP2		1	6.2484	6.25
Building	COOL01		1	4.8006	4.80
Building	COOL02		1	4.8006	4.80
Building	COOL03		1	4.8006	4.80
Building	COOL04		1	4.8006	4.80
Building	COOL05		1	4.8006	4.80
Building	COOL06		1	6.6294	6.63
Building	COOL07		1	6.6294	6.63
Building	COOL08		1	6.6294	6.63
Building	COOL09		1	6.6294	6.63
Building	COOL10		1	6.6294	6.63
Building	COOL11		1	6.6294	6.63
Building	COOL12		1	6.6294	6.63
Building	COOL13		1	6.6294	6.63

Texas Commission on Environmental Quality

Electronic Modeling Evaluation Workbook (EMEW)

Building Downwash

Date: 8/3/2025
Permit #: TBD
Company Name: Pacifico GW LLC

Downwash Type	Modeled Building ID	Tank Diameter (m)	Number of Tiers	Maximum Height (m)	Tier 1 Height (m)
Building	COOL14		1	6.6294	6.63
Building	COOL15		1	6.6294	6.63
Building	COOL16		1	6.6294	6.63
Building	COOL17		1	6.6294	6.63
Building	COOL18		1	6.6294	6.63
Building	COOL19		1	6.6294	6.63
Building	EDG01		1	5.2781	5.28
Building	EDG02		1	5.2781	5.28
Building	EDG03		1	5.2781	5.28
Building	EDG04		1	5.2781	5.28

Texas Commission on Environmental Quality

Electronic Modeling Evaluation Workbook (EMEW)

Building Downwash

Date: 8/3/2025
Permit #: TBD
Company Name: Pacifico GW LLC

Downwash Type	Modeled Building ID	Tank Diameter (m)	Number of Tiers	Maximum Height (m)	Tier 1 Height (m)
Building	EDG05		1	5.2781	5.28
Building	EDG06		1	5.2781	5.28
Building	EDG07		1	5.2781	5.28
Building	EDG08		1	5.2781	5.28
Building	EDG09		1	5.2781	5.28
Building	EDG10		1	5.2781	5.28
Building	EDG11		1	5.2781	5.28
Building	EDG12		1	5.2781	5.28
Building	EDG13		1	5.2781	5.28
Building	EDG14		1	5.2781	5.28
Building	EDG15		1	5.2781	5.28
Tank	TKGT01	18.29	1	7.9248	7.92
Tank	TKFIRE01	15.24	1	6.096	6.10
Tank	TKSERV01	22.86	1	9.144	9.14
Tank	TKGT02	18.29	1	7.9248	7.92
Tank	TKFIRE02	15.24	1	6.096	6.10
Tank	TKSERV02	22.86	1	9.144	9.14
Tank	TNKDSL1	3.66	1	9.144	9.14
Tank	TNKDSL2	3.66	1	9.144	9.14
Tank	TNKDSL3	3.66	1	9.144	9.14
Tank	TNKDSL4	3.66	1	9.144	9.14
Tank	TNKDSL5	3.60	1	4.9987	5.00
Tank	TNKDSL6	3.60	1	4.9987	5.00
Tank	TNKDSL7	3.60	1	4.9987	5.00

Texas Commission on Environmental Quality

Electronic Modeling Evaluation Workbook (EMEW)

Point Source Parameters

Date: 8/3/2025
Permit #: TBD

Company Name: Pacifico GW LLC

EPN	Model ID	Modeling Scenario	Source Description	Point Source Type	Point Source Justification	Pseudo Point Release Height Justification	Easting: X (m)	Northing: Y (m)	Base Elevation (m)	Height (m)	Exit Temperature (K)	Exit Velocity (m/s)	Diameter (m)
CT-1A	CT_01A	All	Siemens SGT-800 Turbine 1	POINT	Vertical stack		700570.72	3451977.09	772.56	30.48	727.59	22.759	3.658
CT-2A	CT_02A	All	Siemens SGT-800 Turbine 2	POINT	Vertical stack		700566.11	3451948.49	772.67	30.48	727.59	22.759	3.658
CT-3A	CT_03A	All	Siemens SGT-800 Turbine 3	POINT	Vertical stack		700561.50	3451919.90	772.78	30.48	727.59	22.759	3.658
CT-4A	CT_04A	All	Siemens SGT-800 Turbine 4	POINT	Vertical stack		700556.88	3451891.31	772.88	30.48	727.59	22.759	3.658
CT-5A	CT_05A	All	Siemens SGT-800 Turbine 5	POINT	Vertical stack		700552.27	3451862.72	772.98	30.48	727.59	22.759	3.658
CT-6A	CT_06A	All	Siemens SGT-800 Turbine 6	POINT	Vertical stack		700547.66	3451834.12	773.06	30.48	727.59	22.759	3.658
CT-7A	CT_07A	All	Siemens SGT-800 Turbine 7	POINT	Vertical stack		700543.04	3451805.53	773.14	30.48	727.59	22.759	3.658
CT-8A	CT_08A	All	Siemens SGT-800 Turbine 8	POINT	Vertical stack		700538.43	3451776.94	773.24	30.48	727.59	22.759	3.658
CT-9A	CT_09A	All	Siemens SGT-800 Turbine 9	POINT	Vertical stack		700533.82	3451748.35	773.33	30.48	727.59	22.759	3.658
CT-10A	CT_10A	All	Siemens SGT-800 Turbine 10	POINT	Vertical stack		700529.21	3451719.76	773.43	30.48	727.59	22.759	3.658
CT-11A	CT_11A	All	Siemens SGT-800 Turbine 11	POINT	Vertical stack		700524.59	3451691.16	773.51	30.48	727.59	22.759	3.658
CT-12A	CT_12A	All	Siemens SGT-800 Turbine 12	POINT	Vertical stack		700519.98	3451662.57	773.60	30.48	727.59	22.759	3.658
CT-13A	CT_13A	All	Siemens SGT-800 Turbine 13	POINT	Vertical stack		700507.60	3451585.82	773.86	30.48	727.59	22.759	3.658
CT-14A	CT_14A	All	Siemens SGT-800 Turbine 14	POINT	Vertical stack		700502.99	3451557.23	773.96	30.48	727.59	22.759	3.658
CT-15A	CT_15A	All	Siemens SGT-800 Turbine 15	POINT	Vertical stack		700498.37	3451528.64	774.06	30.48	727.59	22.759	3.658
CT-16A	CT_16A	All	Siemens SGT-800 Turbine 16	POINT	Vertical stack		700493.76	3451500.04	774.17	30.48	727.59	22.759	3.658
CT-17A	CT_17A	All	Siemens SGT-800 Turbine 17	POINT	Vertical stack		700489.14	3451471.45	774.26	30.48	727.59	22.759	3.658
CT-18A	CT_18A	All	Siemens SGT-800 Turbine 18	POINT	Vertical stack		700484.53	3451442.86	774.36	30.48	727.59	22.759	3.658
CT-19A	CT_19A	All	Siemens SGT-800 Turbine 19	POINT	Vertical stack		700479.92	3451414.27	774.44	30.48	727.59	22.759	3.658
CT-20A	CT_20A	All	Siemens SGT-800 Turbine 20	POINT	Vertical stack		700475.31	3451385.68	774.53	30.48	727.59	22.759	3.658
CT-21A	CT_21A	All	Siemens SGT-800 Turbine 21	POINT	Vertical stack		700470.69	3451357.08	774.63	30.48	727.59	22.759	3.658
CT-1B	CT_01B	All	Large-Frame Combustion Turbine 1	POINT	Vertical stack		700364.71	3451157.96	775.58	60.96	727.59	21.458	9.144
CT-2B	CT_02B	All	Large-Frame Combustion Turbine 2	POINT	Vertical stack		700351.35	3451075.19	775.83	60.96	727.59	21.458	9.144
CT-3B	CT_03B	All	Large-Frame Combustion Turbine 3	POINT	Vertical stack		700325.86	3450917.18	776.24	60.96	727.59	21.458	9.144
CT-4B	CT_04B	All	Large-Frame Combustion Turbine 4	POINT	Vertical stack		700312.50	3450834.42	776.49	60.96	727.59	21.458	9.144
CT-5B	CT_05B	All	Large-Frame Combustion Turbine 5	POINT	Vertical stack		700287.01	3450676.40	777.14	60.96	727.59	21.458	9.144
CT-6B	CT_06B	All	Large-Frame Combustion Turbine 6	POINT	Vertical stack		700273.66	3450593.63	777.52	60.96	727.59	21.458	9.144
CT-7B	CT_07B	All	Large-Frame Combustion Turbine 7	POINT	Vertical stack		700248.16	3450435.62	778.70	60.96	727.59	21.458	9.144
CT-8B	CT_08B	All	Large-Frame Combustion Turbine 8	POINT	Vertical stack		700234.81	3450352.86	779.03	60.96	727.59	21.458	9.144
CT-9B	CT_09B	All	Large-Frame Combustion Turbine 9	POINT	Vertical stack		700209.31	3450194.85	780.01	60.96	727.59	21.458	9.144
CT-10B	CT_10B	All	Large-Frame Combustion Turbine 10	POINT	Vertical stack		700195.96	3450112.08	780.43	60.96	727.59	21.458	9.144
CT-11B	CT_11B	All	Large-Frame Combustion Turbine 11	POINT	Vertical stack		700170.46	3449954.07	781.11	60.96	727.59	21.458	9.144
CT-12B	CT_12B	All	Large-Frame Combustion Turbine 12	POINT	Vertical stack		700157.11	3449871.30	781.33	60.96	727.59	21.458	9.144
CT-13B	CT_13B	All	Large-Frame Combustion Turbine 13	POINT	Vertical stack		700131.61	3449713.29	781.77	60.96	727.59	21.458	9.144
CT-14B	CT_14B	All	Large-Frame Combustion Turbine 14	POINT	Vertical stack		700118.26	3449630.53	782.00	60.96	727.59	21.458	9.144
DPHEAT1	DPHT_01	All	Dewpoint Heater 1	POINT	Vertical stack		700742.70	3451059.50	775.13	7.62	679.26	6.338	0.660
DPHEAT2	DPHT_02	All	Dewpoint Heater 2	POINT	Vertical stack		700741.58	3451052.58	775.16	7.62	679.26	6.338	0.660
DPHEAT3	DPHT_03	All	Dewpoint Heater 3	POINT	Vertical stack		700740.47	3451045.65	775.18	7.62	679.26	6.338	0.660
DPHEAT4	DPHT_04	All	Dewpoint Heater 4	POINT	Vertical stack		700739.35	3451038.73	775.20	7.62	679.26	6.338	0.660
DPHEAT5	DPHT_05	All	Dewpoint Heater 5	POINT	Vertical stack		700738.23	3451031.81	775.22	7.62	679.26	6.338	0.660
DPHEAT6	DPHT_06	All	Dewpoint Heater 6	POINT	Vertical stack		700726.68	3450960.18	775.40	7.62	679.26	6.338	0.660
DPHEAT7	DPHT_07	All	Dewpoint Heater 7	POINT	Vertical stack		700725.56	3450953.25	775.42	7.62	679.26	6.338	0.660
DPHEAT8	DPHT_08	All	Dewpoint Heater 8	POINT	Vertical stack		700724.44	3450946.33	775.44	7.62	679.26	6.338	0.660
DPHEAT9	DPHT_09	All	Dewpoint Heater 9	POINT	Vertical stack		700723.32	3450939.41	775.46	7.62	679.26	6.338	0.660
DPHEAT10	DPHT_10	All	Dewpoint Heater 10	POINT	Vertical stack		700722.21	3450932.49	775.48	7.62	679.26	6.338	0.660
DPHEAT11	DPHT_11	All	Dewpoint Heater 11	POINT	Vertical stack		700710.65	3450860.85	775.73	7.62	679.26	6.338	0.660
DPHEAT12	DPHT_12	All	Dewpoint Heater 12	POINT	Vertical stack		700709.53	3450853.93	775.75	7.62	679.26	6.338	0.660
DPHEAT13	DPHT_13	All	Dewpoint Heater 13	POINT	Vertical stack		700708.42	3450847.01	775.78	7.62	679.26	6.338	0.660
DPHEAT14	DPHT_14	All	Dewpoint Heater 14	POINT	Vertical stack		700694.62	3450761.53	776.09	7.62	679.26	6.338	0.660
DPHEAT15	DPHT_15	All	Dewpoint Heater 15	POINT	Vertical stack		700693.51	3450754.61	776.12	7.62	679.26	6.338	0.660
DPHEAT16	DPHT_16	All	Dewpoint Heater 16	POINT	Vertical stack		700692.39	3450747.69	776.15	7.62	679.26	6.338	0.660
DPHEAT17	DPHT_17	All	Dewpoint Heater 17	POINT	Vertical stack		700678.60	3450662.21	776.45	7.62	679.26	6.338	0.660
DPHEAT18	DPHT_18	All	Dewpoint Heater 18	POINT	Vertical stack		700677.48	3450655.29	776.47	7.62	679.26	6.338	0.660
DPHEAT19	DPHT_19	All	Dewpoint Heater 19	POINT	Vertical stack		700676.37	3450648.37	776.49	7.62	679.26	6.338	0.660
FPUMP1	FPUMP1	All	Firewater Pump 1	POINT	Vertical stack		700582.24	3451587.21	773.67	3.05	789.26	36.221	0.152
FPUMP2	FPUMP2	All	Firewater Pump 2	POINT	Vertical stack		700431.20	3451281.67	774.99	3.05	789.26	36.221	0.152
EGEN1	EGEN01	All	Emergency Engine 1	POINT	Vertical stack		700596.01	3451885.00	772.77	7.92	713.71	31.180	0.660
EGEN2	EGEN02	All	Emergency Engine 2	POINT	Vertical stack		700606.55	3451883.30	772.74	7.92	713.71	31.180	0.660
EGEN3	EGEN03	All	Emergency Engine 3	POINT	Vertical stack		700617.08	3451881.60	772.71	7.92	713.71	31.180	0.660
EGEN4	EGEN04	All	Emergency Engine 4	POINT	Vertical stack		700627.61	3451879.90	772.69	7.92	713.71	31.180	0.660
EGEN5	EGEN05	All	Emergency Engine 5	POINT	Vertical stack		700638.15	3451878.20	772.66	7.92	713.71	31.180	0.660
EGEN6	EGEN06	All	Emergency Engine 6	POINT	Vertical stack		700648.68	3451876.50	772.64	7.92	713.71	31.180	0.660
EGEN7	EGEN07	All	Emergency Engine 7	POINT	Vertical stack		700659.22	3451874.80	772.62	7.92	713.71	31.180	0.660
EGEN8	EGEN08	All	Emergency Engine 8	POINT	Vertical stack		700669.75	3451873.10	772.62	7.92	713.71	31.180	0.660
EGEN9	EGEN09	All	Emergency Engine 9	POINT	Vertical stack		700294.63	3451143.99	775.83	7.92	713.71	31.180	0.660
EGEN10	EGEN10	All	Emergency Engine 10	POINT	Vertical stack		700281.28	3451061.22	776.07	7.92	713.71	31.180	0.660
EGEN11	EGEN11	All	Emergency Engine 11	POINT	Vertical stack		700255.78	3450903.21	776.48	7.92	713.71	31.180	0.660
EGEN12	EGEN12	All	Emergency Engine 12	POINT	Vertical stack		700242.43	3450820.44	776.67	7.92	713.71	31.180	0.660
EGEN13	EGEN13	All	Emergency Engine 13	POINT	Vertical stack		700164.73	3450338.89	779.89	7.92	713.71	31.180	0.660
EGEN14	EGEN14	All	Emergency Engine 14	POINT	Vertical stack		700125.88	3450098.11	781.09	7.92	713.71	31.180	0.660
EGEN15	EGEN15	All	Emergency Engine 15	POINT	Vertical stack		700048.18	3449616.56	782.24	7.92	713.71	31.180	0.660
ENGINE-1	ENGINE1	All	Supplemental Engine Generator 1	POINT	Vertical stack		700499.14	3451291.75	774.73	18.29	646.48	28.210	1.600
ENGINE-2	ENGINE2	All	Supplemental Engine Generator 2	POINT	Vertical stack		700498.00	3451284.65	774.76	18.29	646.48	28.210	1.600
CO-1	CO_01	All	Wet Surface Air Cooler (WSAC) 1	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700588.66	3451806.43	772.99	6.63	0.00	0.001	0.001
CO-2	CO_02	All	Wet Surface Air Cooler (WSAC) 2	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700613.02	3451802.50	772.93	6.63	0.00	0.001	0.001
CO-3	CO_03	All	Wet Surface Air Cooler (WSAC) 3	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700637.37	3451798.57	772.85	6.63	0.00	0.001	0.001
CO-4	CO_04	All	Wet Surface Air Cooler (WSAC) 4	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700661.72	3451794.64	772.84	6.63	0.00	0.001	0.001
CO-5	CO_05	All	Wet Surface Air Cooler (WSAC) 5	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700686.08	3451790.71	772.90	6.63	0.00	0.001	0.001
CO-6	CO_06	All	Wet Surface Air Cooler (WSAC) 6	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700448.75	3450975.25	775.79	8.46	0.00	0.001	0.001
CO-7	CO_07	All	Wet Surface Air Cooler (WSAC) 7	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700466.81	3450972.34	775.75	8.46	0.00	0.001	0.001
CO-8	CO_08	All	Wet Surface Air Cooler (WSAC) 8	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700409.90	3450734.48	776.56	8.46	0.00	0.001	0.001
CO-9	CO_09	All	Wet Surface Air Cooler (WSAC) 9	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700427.96	3450731.56	776.53	8.46	0.00	0.001	0.001

Texas Commission on Environmental Quality

Electronic Modeling Evaluation Workbook (EMEW)

Point Source Parameters

Date: 8/3/2025
Permit #: TBD

Company Name: Pacifico GW LLC

EPN	Model ID	Modeling Scenario	Source Description	Point Source Type	Point Source Justification	Pseudo Point Release Height Justification	Easting: X (m)	Northing: Y (m)	Base Elevation (m)	Height (m)	Exit Temperature (K)	Exit Velocity (m/s)	Diameter (m)
CO-10	CO_10	All	Wet Surface Air Cooler (WSAC) 10	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700371.05	3450493.70	777.70	8.46	0.00	0.001	0.001
CO-11	CO_11	All	Wet Surface Air Cooler (WSAC) 11	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700389.11	3450490.79	777.65	8.46	0.00	0.001	0.001
CO-12	CO_12	All	Wet Surface Air Cooler (WSAC) 12	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700332.20	3450252.92	778.96	8.46	0.00	0.001	0.001
CO-13	CO_13	All	Wet Surface Air Cooler (WSAC) 13	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700350.26	3450250.00	778.84	8.46	0.00	0.001	0.001
CO-14	CO_14	All	Wet Surface Air Cooler (WSAC) 14	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700293.35	3450012.14	780.18	8.46	0.00	0.001	0.001
CO-15	CO_15	All	Wet Surface Air Cooler (WSAC) 15	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700311.41	3450009.23	780.10	8.46	0.00	0.001	0.001
CO-16	CO_16	All	Wet Surface Air Cooler (WSAC) 16	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700254.50	3449771.36	781.13	8.46	0.00	0.001	0.001
CO-17	CO_17	All	Wet Surface Air Cooler (WSAC) 17	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700272.56	3449768.45	781.05	8.46	0.00	0.001	0.001
CO-18	CO_18	All	Wet Surface Air Cooler (WSAC) 18	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700215.65	3449530.59	781.87	8.46	0.00	0.001	0.001
CO-19	CO_19	All	Wet Surface Air Cooler (WSAC) 19	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700233.71	3449527.67	781.81	8.46	0.00	0.001	0.001
OILVENT1	LOV_01A	All	Lube Oil Vent 1	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700552.47	3451977.51	772.62	7.62	0.00	0.001	0.001
OILVENT2	LOV_02A	All	Lube Oil Vent 2	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700546.26	3451949.63	772.73	7.62	0.00	0.001	0.001
OILVENT3	LOV_03A	All	Lube Oil Vent 3	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700540.24	3451920.96	772.85	7.62	0.00	0.001	0.001
OILVENT4	LOV_04A	All	Lube Oil Vent 4	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700535.63	3451893.09	772.95	7.62	0.00	0.001	0.001
OILVENT5	LOV_05A	All	Lube Oil Vent 5	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700531.62	3451864.61	773.05	7.62	0.00	0.001	0.001
OILVENT6	LOV_06A	All	Lube Oil Vent 6	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700527.32	3451835.31	773.13	7.62	0.00	0.001	0.001
OILVENT7	LOV_07A	All	Lube Oil Vent 7	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700523.56	3451807.33	773.21	7.62	0.00	0.001	0.001
OILVENT8	LOV_08A	All	Lube Oil Vent 8	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700518.97	3451778.52	773.30	7.62	0.00	0.001	0.001
OILVENT9	LOV_09A	All	Lube Oil Vent 9	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700514.93	3451750.54	773.38	7.62	0.00	0.001	0.001
OILVENT10	LOV_10A	All	Lube Oil Vent 10	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700510.30	3451721.20	773.48	7.62	0.00	0.001	0.001
OILVENT11	LOV_11A	All	Lube Oil Vent 11	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700505.87	3451693.42	773.56	7.62	0.00	0.001	0.001
OILVENT12	LOV_12A	All	Lube Oil Vent 12	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700500.84	3451664.74	773.64	7.62	0.00	0.001	0.001
OILVENT13	LOV_13A	All	Lube Oil Vent 13	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700487.50	3451587.58	773.90	7.62	0.00	0.001	0.001
OILVENT14	LOV_14A	All	Lube Oil Vent 14	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700484.20	3451558.63	774.00	7.62	0.00	0.001	0.001
OILVENT15	LOV_15A	All	Lube Oil Vent 15	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700478.85	3451530.15	774.11	7.62	0.00	0.001	0.001
OILVENT16	LOV_16A	All	Lube Oil Vent 16	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700474.13	3451501.68	774.21	7.62	0.00	0.001	0.001
OILVENT17	LOV_17A	All	Lube Oil Vent 17	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700468.94	3451473.36	774.31	7.62	0.00	0.001	0.001
OILVENT18	LOV_18A	All	Lube Oil Vent 18	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700465.16	3451444.26	774.40	7.62	0.00	0.001	0.001
OILVENT19	LOV_19A	All	Lube Oil Vent 19	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700459.66	3451416.73	774.49	7.62	0.00	0.001	0.001
OILVENT20	LOV_20A	All	Lube Oil Vent 20	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700454.31	3451387.94	774.59	7.62	0.00	0.001	0.001
OILVENT21	LOV_21A	All	Lube Oil Vent 21	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700448.65	3451358.84	774.69	7.62	0.00	0.001	0.001
OILVENT22	LOV_01B	All	Lube Oil Vent 22	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700338.85	3451104.42	775.80	7.62	0.00	0.001	0.001
OILVENT23	LOV_02B	All	Lube Oil Vent 23	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700322.66	3451019.98	776.03	7.62	0.00	0.001	0.001
OILVENT24	LOV_03B	All	Lube Oil Vent 24	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700299.05	3450862.35	776.45	7.62	0.00	0.001	0.001
OILVENT25	LOV_04B	All	Lube Oil Vent 25	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700283.54	3450776.64	776.71	7.62	0.00	0.001	0.001
OILVENT26	LOV_05B	All	Lube Oil Vent 26	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700259.36	3450619.48	777.49	7.62	0.00	0.001	0.001
OILVENT27	LOV_06B	All	Lube Oil Vent 27	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700245.00	3450539.55	778.06	7.62	0.00	0.001	0.001
OILVENT28	LOV_07B	All	Lube Oil Vent 28	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700217.56	3450381.00	779.03	7.62	0.00	0.001	0.001
OILVENT29	LOV_08B	All	Lube Oil Vent 29	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700199.87	3450295.38	779.80	7.62	0.00	0.001	0.001
OILVENT30	LOV_09B	All	Lube Oil Vent 30	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700177.64	3450139.03	780.49	7.62	0.00	0.001	0.001
OILVENT31	LOV_10B	All	Lube Oil Vent 31	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700160.38	3450055.97	780.93	7.62	0.00	0.001	0.001
OILVENT32	LOV_11B	All	Lube Oil Vent 32	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700136.41	3449897.60	781.36	7.62	0.00	0.001	0.001
OILVENT33	LOV_12B	All	Lube Oil Vent 33	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700120.79	3449814.02	781.55	7.62	0.00	0.001	0.001
OILVENT34	LOV_13B	All	Lube Oil Vent 34	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700093.49	3449656.06	782.05	7.62	0.00	0.001	0.001
OILVENT35	LOV_14B	All	Lube Oil Vent 35	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700077.96	3449574.95	782.27	7.62	0.00	0.001	0.001
TNK-DSL1	TNK_DSL1	All	Diesel Tank 1	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700599.00	3451855.00	772.84	9.14	0.00	0.001	0.001
TNK-DSL2	TNK_DSL2	All	Diesel Tank 2	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700599.00	3451848.00	772.86	9.14	0.00	0.001	0.001
TNK-DSL3	TNK_DSL3	All	Diesel Tank 3	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700599.00	3451843.00	772.88	9.14	0.00	0.001	0.001
TNK-DSL4	TNK_DSL4	All	Diesel Tank 4	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700628.00	3451258.00	774.54	9.14	0.00	0.001	0.001
TNK-DSL5	TNK_DSL5	All	Diesel Tank 5	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700628.00	3451254.00	774.55	5.00	0.00	0.001	0.001
TNK-DSL6	TNK_DSL6	All	Diesel Tank 6	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700627.00	3451247.00	774.58	5.00	0.00	0.001	0.001
TNK-DSL7	TNK_DSL7	All	Diesel Tank 7	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700626.00	3451241.00	774.60	5.00	0.00	0.001	0.001

Texas Commission on Environmental Quality

Electronic Modeling Evaluation Workbook (EMEW)

Area Source Parameters

Date: 8/3/2025
Permit #: TBD

Company Name: Pacifico GW LLC

EPN	Model ID	Modeling Scenario	Area Source Type	Easting: X (m)	Northing: Y (m)	Base Elevation (m)	Modeled Release Height (m)	Length X (m)	Length Y (m)
NGFUG	NGFUG	All	AREA	700742.39	3450832.29	775.80	1.00	1.00	1.00
NH3FUG	NH3FUG	All	AREA	700382.09	3450644.59	776.97	1.00	1.00	1.00
MSSFUG	MSSFUG	All	AREA	700382.09	3450644.59	776.97	1.00	1.00	1.00

Texas Commission on Environmental Quality

Electronic Modeling Evaluation Workbook (EMEW)

Area Source Parameters

Date: 8/3/2025
Permit #: TBD
Company Name: Pacifico GW LLC

EPN	Model ID	Rotation Angle (deg)	Radius (m)	Initial Vertical Sigma (m)	Area Source Initial Sigma Justification	Area Source Size Justification	Area Source Release Height Justification	Source Description
NGFUG	NGFUG	0.00		-	-	Approximate size of piping components.	Approximate height of piping components.	Natural Gas Piping Fugitives
NH3FUG	NH3FUG	0.00		-	-	Approximate size of piping components.	Approximate height of piping components.	SCR Delivery System Fugitives
MSSFUG	MSSFUG	0.00		-	-	Approximate size of piping components.	Approximate height of piping components.	ILE Turbine Maintenance Activities

Texas Commission on Environmental Quality

Electronic Modeling Evaluation Workbook (EMEW)

Modeling Scenarios

Date: 8/3/2025
Permit #: TBD

Company Name: Pacifico GW LLC

Modeling Scenario Information:

Modeling Scenario	Scenario Description
All	All project source emissions modeled as operating simultaneously.

Texas Commission on Environmental Quality

Electronic Modeling Evaluation Workbook (EMEW)

Flare & Point Source Emissions

Date: 8/3/2025
Permit #: TBD

Company Name: Pacifico GW LLC

EPN	Model ID	Modeling Scenario	Pollutant	Modeled Averaging Time	Standard Type	Review Context	Modeled Source Group ID (if entering multiple source group IDs, separate with semicolon)	Intermittent Source?	Modeled Emission Rate (lb/hr)	Basis of Modeled Emission Rate	Scalars or Factors Used?	Scalar/Factor in Use
CT-1A	CT_01A	All	SO2	1-hr	State Property Line	Site-Wide			0.739	Maximum allowable	No	
CT-2A	CT_02A	All	SO2	1-hr	State Property Line	Site-Wide			0.739	Maximum allowable	No	
CT-3A	CT_03A	All	SO2	1-hr	State Property Line	Site-Wide			0.739	Maximum allowable	No	
CT-4A	CT_04A	All	SO2	1-hr	State Property Line	Site-Wide			0.739	Maximum allowable	No	
CT-5A	CT_05A	All	SO2	1-hr	State Property Line	Site-Wide			0.739	Maximum allowable	No	
CT-6A	CT_06A	All	SO2	1-hr	State Property Line	Site-Wide			0.739	Maximum allowable	No	
CT-7A	CT_07A	All	SO2	1-hr	State Property Line	Site-Wide			0.739	Maximum allowable	No	
CT-8A	CT_08A	All	SO2	1-hr	State Property Line	Site-Wide			0.739	Maximum allowable	No	
CT-9A	CT_09A	All	SO2	1-hr	State Property Line	Site-Wide			0.739	Maximum allowable	No	
CT-10A	CT_10A	All	SO2	1-hr	State Property Line	Site-Wide			0.739	Maximum allowable	No	
CT-11A	CT_11A	All	SO2	1-hr	State Property Line	Site-Wide			0.739	Maximum allowable	No	
CT-12A	CT_12A	All	SO2	1-hr	State Property Line	Site-Wide			0.739	Maximum allowable	No	
CT-13A	CT_13A	All	SO2	1-hr	State Property Line	Site-Wide			0.739	Maximum allowable	No	
CT-14A	CT_14A	All	SO2	1-hr	State Property Line	Site-Wide			0.739	Maximum allowable	No	
CT-15A	CT_15A	All	SO2	1-hr	State Property Line	Site-Wide			0.739	Maximum allowable	No	
CT-16A	CT_16A	All	SO2	1-hr	State Property Line	Site-Wide			0.739	Maximum allowable	No	
CT-17A	CT_17A	All	SO2	1-hr	State Property Line	Site-Wide			0.739	Maximum allowable	No	
CT-18A	CT_18A	All	SO2	1-hr	State Property Line	Site-Wide			0.739	Maximum allowable	No	
CT-19A	CT_19A	All	SO2	1-hr	State Property Line	Site-Wide			0.739	Maximum allowable	No	
CT-20A	CT_20A	All	SO2	1-hr	State Property Line	Site-Wide			0.739	Maximum allowable	No	
CT-21A	CT_21A	All	SO2	1-hr	State Property Line	Site-Wide			0.739	Maximum allowable	No	
CT-1B	CT_01B	All	SO2	1-hr	State Property Line	Site-Wide			5.354	Maximum allowable	No	
CT-2B	CT_02B	All	SO2	1-hr	State Property Line	Site-Wide			5.354	Maximum allowable	No	
CT-3B	CT_03B	All	SO2	1-hr	State Property Line	Site-Wide			5.354	Maximum allowable	No	
CT-4B	CT_04B	All	SO2	1-hr	State Property Line	Site-Wide			5.354	Maximum allowable	No	
CT-5B	CT_05B	All	SO2	1-hr	State Property Line	Site-Wide			5.354	Maximum allowable	No	
CT-6B	CT_06B	All	SO2	1-hr	State Property Line	Site-Wide			5.354	Maximum allowable	No	
CT-7B	CT_07B	All	SO2	1-hr	State Property Line	Site-Wide			5.354	Maximum allowable	No	
CT-8B	CT_08B	All	SO2	1-hr	State Property Line	Site-Wide			5.354	Maximum allowable	No	
CT-9B	CT_09B	All	SO2	1-hr	State Property Line	Site-Wide			5.354	Maximum allowable	No	
CT-10B	CT_10B	All	SO2	1-hr	State Property Line	Site-Wide			5.354	Maximum allowable	No	
CT-11B	CT_11B	All	SO2	1-hr	State Property Line	Site-Wide			5.354	Maximum allowable	No	
CT-12B	CT_12B	All	SO2	1-hr	State Property Line	Site-Wide			5.354	Maximum allowable	No	
CT-13B	CT_13B	All	SO2	1-hr	State Property Line	Site-Wide			5.354	Maximum allowable	No	
CT-14B	CT_14B	All	SO2	1-hr	State Property Line	Site-Wide			5.354	Maximum allowable	No	
DPHEAT1	DPHT_01	All	SO2	1-hr	State Property Line	Site-Wide			0.012	Maximum allowable	No	
DPHEAT2	DPHT_02	All	SO2	1-hr	State Property Line	Site-Wide			0.012	Maximum allowable	No	
DPHEAT3	DPHT_03	All	SO2	1-hr	State Property Line	Site-Wide			0.012	Maximum allowable	No	
DPHEAT4	DPHT_04	All	SO2	1-hr	State Property Line	Site-Wide			0.012	Maximum allowable	No	
DPHEAT5	DPHT_05	All	SO2	1-hr	State Property Line	Site-Wide			0.012	Maximum allowable	No	
DPHEAT6	DPHT_06	All	SO2	1-hr	State Property Line	Site-Wide			0.016	Maximum allowable	No	
DPHEAT7	DPHT_07	All	SO2	1-hr	State Property Line	Site-Wide			0.016	Maximum allowable	No	
DPHEAT8	DPHT_08	All	SO2	1-hr	State Property Line	Site-Wide			0.016	Maximum allowable	No	
DPHEAT9	DPHT_09	All	SO2	1-hr	State Property Line	Site-Wide			0.016	Maximum allowable	No	
DPHEAT10	DPHT_10	All	SO2	1-hr	State Property Line	Site-Wide			0.016	Maximum allowable	No	
DPHEAT11	DPHT_11	All	SO2	1-hr	State Property Line	Site-Wide			0.016	Maximum allowable	No	
DPHEAT12	DPHT_12	All	SO2	1-hr	State Property Line	Site-Wide			0.016	Maximum allowable	No	
DPHEAT13	DPHT_13	All	SO2	1-hr	State Property Line	Site-Wide			0.016	Maximum allowable	No	
DPHEAT14	DPHT_14	All	SO2	1-hr	State Property Line	Site-Wide			0.016	Maximum allowable	No	
DPHEAT15	DPHT_15	All	SO2	1-hr	State Property Line	Site-Wide			0.016	Maximum allowable	No	
DPHEAT16	DPHT_16	All	SO2	1-hr	State Property Line	Site-Wide			0.016	Maximum allowable	No	
DPHEAT17	DPHT_17	All	SO2	1-hr	State Property Line	Site-Wide			0.016	Maximum allowable	No	
DPHEAT18	DPHT_18	All	SO2	1-hr	State Property Line	Site-Wide			0.016	Maximum allowable	No	
DPHEAT19	DPHT_19	All	SO2	1-hr	State Property Line	Site-Wide			0.016	Maximum allowable	No	

Texas Commission on Environmental Quality

Electronic Modeling Evaluation Workbook (EMEW)

Flare & Point Source Emissions

Date: 8/3/2025
Permit #: TBD

Company Name: Pacifico GW LLC

EPN	Model ID	Modeling Scenario	Pollutant	Modeled Averaging Time	Standard Type	Review Context	Modeled Source Group ID (if entering multiple source group IDs, separate with semicolon)	Intermittent Source?	Modeled Emission Rate (lb/hr)	Basis of Modeled Emission Rate	Scalars or Factors Used?	Scalar/Factor in Use
FPUMP1	FPUMP1	All	SO2	1-hr	State Property Line	Site-Wide			0.003	Maximum allowable	No	
FPUMP2	FPUMP2	All	SO2	1-hr	State Property Line	Site-Wide			0.003	Maximum allowable	No	
EGEN1	EGEN01	All	SO2	1-hr	State Property Line	Site-Wide			0.053	Maximum allowable	No	
EGEN2	EGEN02	All	SO2	1-hr	State Property Line	Site-Wide			0.053	Maximum allowable	No	
EGEN3	EGEN03	All	SO2	1-hr	State Property Line	Site-Wide			0.053	Maximum allowable	No	
EGEN4	EGEN04	All	SO2	1-hr	State Property Line	Site-Wide			0.053	Maximum allowable	No	
EGEN5	EGEN05	All	SO2	1-hr	State Property Line	Site-Wide			0.053	Maximum allowable	No	
EGEN6	EGEN06	All	SO2	1-hr	State Property Line	Site-Wide			0.053	Maximum allowable	No	
EGEN7	EGEN07	All	SO2	1-hr	State Property Line	Site-Wide			0.053	Maximum allowable	No	
EGEN8	EGEN08	All	SO2	1-hr	State Property Line	Site-Wide			0.053	Maximum allowable	No	
EGEN9	EGEN09	All	SO2	1-hr	State Property Line	Site-Wide			0.053	Maximum allowable	No	
EGEN10	EGEN10	All	SO2	1-hr	State Property Line	Site-Wide			0.053	Maximum allowable	No	
EGEN11	EGEN11	All	SO2	1-hr	State Property Line	Site-Wide			0.053	Maximum allowable	No	
EGEN12	EGEN12	All	SO2	1-hr	State Property Line	Site-Wide			0.053	Maximum allowable	No	
EGEN13	EGEN13	All	SO2	1-hr	State Property Line	Site-Wide			0.053	Maximum allowable	No	
EGEN14	EGEN14	All	SO2	1-hr	State Property Line	Site-Wide			0.053	Maximum allowable	No	
EGEN15	EGEN15	All	SO2	1-hr	State Property Line	Site-Wide			0.053	Maximum allowable	No	
ENGINE-1	ENGINE1	All	SO2	1-hr	State Property Line	Site-Wide			0.094	Maximum allowable	No	
ENGINE-2	ENGINE2	All	SO2	1-hr	State Property Line	Site-Wide			0.094	Maximum allowable	No	
CT-1A	CT_01A	All	H2SO4	1-hr	State Property Line	Site-Wide			0.113	Maximum allowable	No	
CT-2A	CT_02A	All	H2SO4	1-hr	State Property Line	Site-Wide			0.113	Maximum allowable	No	
CT-3A	CT_03A	All	H2SO4	1-hr	State Property Line	Site-Wide			0.113	Maximum allowable	No	
CT-4A	CT_04A	All	H2SO4	1-hr	State Property Line	Site-Wide			0.113	Maximum allowable	No	
CT-5A	CT_05A	All	H2SO4	1-hr	State Property Line	Site-Wide			0.113	Maximum allowable	No	
CT-6A	CT_06A	All	H2SO4	1-hr	State Property Line	Site-Wide			0.113	Maximum allowable	No	
CT-7A	CT_07A	All	H2SO4	1-hr	State Property Line	Site-Wide			0.113	Maximum allowable	No	
CT-8A	CT_08A	All	H2SO4	1-hr	State Property Line	Site-Wide			0.113	Maximum allowable	No	
CT-9A	CT_09A	All	H2SO4	1-hr	State Property Line	Site-Wide			0.113	Maximum allowable	No	
CT-10A	CT_10A	All	H2SO4	1-hr	State Property Line	Site-Wide			0.113	Maximum allowable	No	
CT-11A	CT_11A	All	H2SO4	1-hr	State Property Line	Site-Wide			0.113	Maximum allowable	No	
CT-12A	CT_12A	All	H2SO4	1-hr	State Property Line	Site-Wide			0.113	Maximum allowable	No	
CT-13A	CT_13A	All	H2SO4	1-hr	State Property Line	Site-Wide			0.113	Maximum allowable	No	
CT-14A	CT_14A	All	H2SO4	1-hr	State Property Line	Site-Wide			0.113	Maximum allowable	No	
CT-15A	CT_15A	All	H2SO4	1-hr	State Property Line	Site-Wide			0.113	Maximum allowable	No	
CT-16A	CT_16A	All	H2SO4	1-hr	State Property Line	Site-Wide			0.113	Maximum allowable	No	
CT-17A	CT_17A	All	H2SO4	1-hr	State Property Line	Site-Wide			0.113	Maximum allowable	No	
CT-18A	CT_18A	All	H2SO4	1-hr	State Property Line	Site-Wide			0.113	Maximum allowable	No	
CT-19A	CT_19A	All	H2SO4	1-hr	State Property Line	Site-Wide			0.113	Maximum allowable	No	
CT-20A	CT_20A	All	H2SO4	1-hr	State Property Line	Site-Wide			0.113	Maximum allowable	No	
CT-21A	CT_21A	All	H2SO4	1-hr	State Property Line	Site-Wide			0.113	Maximum allowable	No	
CT-1B	CT_01B	All	H2SO4	1-hr	State Property Line	Site-Wide			0.819	Maximum allowable	No	
CT-2B	CT_02B	All	H2SO4	1-hr	State Property Line	Site-Wide			0.819	Maximum allowable	No	
CT-3B	CT_03B	All	H2SO4	1-hr	State Property Line	Site-Wide			0.819	Maximum allowable	No	
CT-4B	CT_04B	All	H2SO4	1-hr	State Property Line	Site-Wide			0.819	Maximum allowable	No	
CT-5B	CT_05B	All	H2SO4	1-hr	State Property Line	Site-Wide			0.819	Maximum allowable	No	
CT-6B	CT_06B	All	H2SO4	1-hr	State Property Line	Site-Wide			0.819	Maximum allowable	No	
CT-7B	CT_07B	All	H2SO4	1-hr	State Property Line	Site-Wide			0.819	Maximum allowable	No	
CT-8B	CT_08B	All	H2SO4	1-hr	State Property Line	Site-Wide			0.819	Maximum allowable	No	
CT-9B	CT_09B	All	H2SO4	1-hr	State Property Line	Site-Wide			0.819	Maximum allowable	No	
CT-10B	CT_10B	All	H2SO4	1-hr	State Property Line	Site-Wide			0.819	Maximum allowable	No	
CT-11B	CT_11B	All	H2SO4	1-hr	State Property Line	Site-Wide			0.819	Maximum allowable	No	
CT-12B	CT_12B	All	H2SO4	1-hr	State Property Line	Site-Wide			0.819	Maximum allowable	No	
CT-13B	CT_13B	All	H2SO4	1-hr	State Property Line	Site-Wide			0.819	Maximum allowable	No	
CT-14B	CT_14B	All	H2SO4	1-hr	State Property Line	Site-Wide			0.819	Maximum allowable	No	

Texas Commission on Environmental Quality

Electronic Modeling Evaluation Workbook (EMEW)

Flare & Point Source Emissions

Date: 8/3/2025
Permit #: TBD

Company Name: Pacifico GW LLC

EPN	Model ID	Modeling Scenario	Pollutant	Modeled Averaging Time	Standard Type	Review Context	Modeled Source Group ID (if entering multiple source group IDs, separate with semicolon)	Intermittent Source?	Modeled Emission Rate (lb/hr)	Basis of Modeled Emission Rate	Scalars or Factors Used?	Scalar/Factor in Use
CT-1A	CT_01A	All	H2SO4	24-hr	State Property Line	Site-Wide			0.113	Maximum allowable	No	
CT-2A	CT_02A	All	H2SO4	24-hr	State Property Line	Site-Wide			0.113	Maximum allowable	No	
CT-3A	CT_03A	All	H2SO4	24-hr	State Property Line	Site-Wide			0.113	Maximum allowable	No	
CT-4A	CT_04A	All	H2SO4	24-hr	State Property Line	Site-Wide			0.113	Maximum allowable	No	
CT-5A	CT_05A	All	H2SO4	24-hr	State Property Line	Site-Wide			0.113	Maximum allowable	No	
CT-6A	CT_06A	All	H2SO4	24-hr	State Property Line	Site-Wide			0.113	Maximum allowable	No	
CT-7A	CT_07A	All	H2SO4	24-hr	State Property Line	Site-Wide			0.113	Maximum allowable	No	
CT-8A	CT_08A	All	H2SO4	24-hr	State Property Line	Site-Wide			0.113	Maximum allowable	No	
CT-9A	CT_09A	All	H2SO4	24-hr	State Property Line	Site-Wide			0.113	Maximum allowable	No	
CT-10A	CT_10A	All	H2SO4	24-hr	State Property Line	Site-Wide			0.113	Maximum allowable	No	
CT-11A	CT_11A	All	H2SO4	24-hr	State Property Line	Site-Wide			0.113	Maximum allowable	No	
CT-12A	CT_12A	All	H2SO4	24-hr	State Property Line	Site-Wide			0.113	Maximum allowable	No	
CT-13A	CT_13A	All	H2SO4	24-hr	State Property Line	Site-Wide			0.113	Maximum allowable	No	
CT-14A	CT_14A	All	H2SO4	24-hr	State Property Line	Site-Wide			0.113	Maximum allowable	No	
CT-15A	CT_15A	All	H2SO4	24-hr	State Property Line	Site-Wide			0.113	Maximum allowable	No	
CT-16A	CT_16A	All	H2SO4	24-hr	State Property Line	Site-Wide			0.113	Maximum allowable	No	
CT-17A	CT_17A	All	H2SO4	24-hr	State Property Line	Site-Wide			0.113	Maximum allowable	No	
CT-18A	CT_18A	All	H2SO4	24-hr	State Property Line	Site-Wide			0.113	Maximum allowable	No	
CT-19A	CT_19A	All	H2SO4	24-hr	State Property Line	Site-Wide			0.113	Maximum allowable	No	
CT-20A	CT_20A	All	H2SO4	24-hr	State Property Line	Site-Wide			0.113	Maximum allowable	No	
CT-21A	CT_21A	All	H2SO4	24-hr	State Property Line	Site-Wide			0.113	Maximum allowable	No	
CT-1B	CT_01B	All	H2SO4	24-hr	State Property Line	Site-Wide			0.819	Maximum allowable	No	
CT-2B	CT_02B	All	H2SO4	24-hr	State Property Line	Site-Wide			0.819	Maximum allowable	No	
CT-3B	CT_03B	All	H2SO4	24-hr	State Property Line	Site-Wide			0.819	Maximum allowable	No	
CT-4B	CT_04B	All	H2SO4	24-hr	State Property Line	Site-Wide			0.819	Maximum allowable	No	
CT-5B	CT_05B	All	H2SO4	24-hr	State Property Line	Site-Wide			0.819	Maximum allowable	No	
CT-6B	CT_06B	All	H2SO4	24-hr	State Property Line	Site-Wide			0.819	Maximum allowable	No	
CT-7B	CT_07B	All	H2SO4	24-hr	State Property Line	Site-Wide			0.819	Maximum allowable	No	
CT-8B	CT_08B	All	H2SO4	24-hr	State Property Line	Site-Wide			0.819	Maximum allowable	No	
CT-9B	CT_09B	All	H2SO4	24-hr	State Property Line	Site-Wide			0.819	Maximum allowable	No	
CT-10B	CT_10B	All	H2SO4	24-hr	State Property Line	Site-Wide			0.819	Maximum allowable	No	
CT-11B	CT_11B	All	H2SO4	24-hr	State Property Line	Site-Wide			0.819	Maximum allowable	No	
CT-12B	CT_12B	All	H2SO4	24-hr	State Property Line	Site-Wide			0.819	Maximum allowable	No	
CT-13B	CT_13B	All	H2SO4	24-hr	State Property Line	Site-Wide			0.819	Maximum allowable	No	
CT-14B	CT_14B	All	H2SO4	24-hr	State Property Line	Site-Wide			0.819	Maximum allowable	No	

Texas Commission on Environmental Quality

Electronic Modeling Evaluation Workbook (EMEW)

Area Source Emissions

Date: 8/3/2025
Permit #: TBD

Company Name: Pacifico GW LLC

EPN	Model ID	Modeling Scenario	Pollutant	Modeled Averaging Time	Standard Type	Review Context	Modeled Source Group ID (if entering multiple source group IDs, separate with semicolon)	Intermittent Source?	Modeled Emission Rate (lb/hr)	Basis of Modeled Emission Rate	Scalars or Factors Used?	Scalar/Factor in Use
NGFUG	NGFUG	All	H2S	1-hr	State Property Line	Site-Wide			0.000	Maximum allowable	No	
MSSFUG	MSSFUG	All	H2S	1-hr	State Property Line	Site-Wide			0.005	Maximum allowable	No	

Texas Commission on Environmental Quality

Electronic Modeling Evaluation Workbook (EMEW)

Speciated Emissions

Date: 8/3/2025
Permit #: TBD

Company Name: Pacifico GW LLC

Speciated Emissions by Model ID:

EPN	Model ID	Modeling Scenario	Review Context	Modeled Source Group ID (if entering multiple	CAS #	Chemical Species	Other Species	Short-Term ESL ($\mu g/m^3$)	Long-Term ESL ($\mu g/m^3$)	Modeled Averaging Time	Modeled Emission Rate (lb/hr)	Basis of Emission Rate	Scalars or Factors Used?	Scalar/Factor in Use
CT-1A	CT_01A	All	Site-Wide		7664-41-7	ammonia		180	92	1-hr	7.181728653	Maximum allowable	No	
CT-2A	CT_02A	All	Site-Wide		7664-41-7	ammonia		180	92	1-hr	7.181728653	Maximum allowable	No	
CT-3A	CT_03A	All	Site-Wide		7664-41-7	ammonia		180	92	1-hr	7.181728653	Maximum allowable	No	
CT-4A	CT_04A	All	Site-Wide		7664-41-7	ammonia		180	92	1-hr	7.181728653	Maximum allowable	No	
CT-5A	CT_05A	All	Site-Wide		7664-41-7	ammonia		180	92	1-hr	7.181728653	Maximum allowable	No	
CT-6A	CT_06A	All	Site-Wide		7664-41-7	ammonia		180	92	1-hr	7.181728653	Maximum allowable	No	
CT-7A	CT_07A	All	Site-Wide		7664-41-7	ammonia		180	92	1-hr	7.181728653	Maximum allowable	No	
CT-8A	CT_08A	All	Site-Wide		7664-41-7	ammonia		180	92	1-hr	7.181728653	Maximum allowable	No	
CT-9A	CT_09A	All	Site-Wide		7664-41-7	ammonia		180	92	1-hr	7.181728653	Maximum allowable	No	
CT-10A	CT_10A	All	Site-Wide		7664-41-7	ammonia		180	92	1-hr	7.181728653	Maximum allowable	No	
CT-11A	CT_11A	All	Site-Wide		7664-41-7	ammonia		180	92	1-hr	7.181728653	Maximum allowable	No	
CT-12A	CT_12A	All	Site-Wide		7664-41-7	ammonia		180	92	1-hr	7.181728653	Maximum allowable	No	
CT-13A	CT_13A	All	Site-Wide		7664-41-7	ammonia		180	92	1-hr	7.181728653	Maximum allowable	No	
CT-14A	CT_14A	All	Site-Wide		7664-41-7	ammonia		180	92	1-hr	7.181728653	Maximum allowable	No	
CT-15A	CT_15A	All	Site-Wide		7664-41-7	ammonia		180	92	1-hr	7.181728653	Maximum allowable	No	
CT-16A	CT_16A	All	Site-Wide		7664-41-7	ammonia		180	92	1-hr	7.181728653	Maximum allowable	No	
CT-17A	CT_17A	All	Site-Wide		7664-41-7	ammonia		180	92	1-hr	7.181728653	Maximum allowable	No	
CT-18A	CT_18A	All	Site-Wide		7664-41-7	ammonia		180	92	1-hr	7.181728653	Maximum allowable	No	
CT-19A	CT_19A	All	Site-Wide		7664-41-7	ammonia		180	92	1-hr	7.181728653	Maximum allowable	No	
CT-20A	CT_20A	All	Site-Wide		7664-41-7	ammonia		180	92	1-hr	7.181728653	Maximum allowable	No	
CT-21A	CT_21A	All	Site-Wide		7664-41-7	ammonia		180	92	1-hr	7.181728653	Maximum allowable	No	
CT-1B	CT_01B	All	Site-Wide		7664-41-7	ammonia		180	92	1-hr	52.00314484	Maximum allowable	No	
CT-2B	CT_02B	All	Site-Wide		7664-41-7	ammonia		180	92	1-hr	52.00314484	Maximum allowable	No	
CT-3B	CT_03B	All	Site-Wide		7664-41-7	ammonia		180	92	1-hr	52.00314484	Maximum allowable	No	
CT-4B	CT_04B	All	Site-Wide		7664-41-7	ammonia		180	92	1-hr	52.00314484	Maximum allowable	No	
CT-5B	CT_05B	All	Site-Wide		7664-41-7	ammonia		180	92	1-hr	52.00314484	Maximum allowable	No	
CT-6B	CT_06B	All	Site-Wide		7664-41-7	ammonia		180	92	1-hr	52.00314484	Maximum allowable	No	
CT-7B	CT_07B	All	Site-Wide		7664-41-7	ammonia		180	92	1-hr	52.00314484	Maximum allowable	No	
CT-8B	CT_08B	All	Site-Wide		7664-41-7	ammonia		180	92	1-hr	52.00314484	Maximum allowable	No	
CT-9B	CT_09B	All	Site-Wide		7664-41-7	ammonia		180	92	1-hr	52.00314484	Maximum allowable	No	
CT-10B	CT_10B	All	Site-Wide		7664-41-7	ammonia		180	92	1-hr	52.00314484	Maximum allowable	No	

Texas Commission on Environmental Quality

Electronic Modeling Evaluation Workbook (EMEW)

Speciated Emissions

Date: 8/3/2025
Permit #: TBD

Company Name: Pacifico GW LLC

Speciated Emissions by Model ID:

EPN	Model ID	Modeling Scenario	Review Context	Modeled Source Group ID (if entering multiple	CAS #	Chemical Species	Other Species	Short-Term ESL ($\mu g/m^3$)	Long-Term ESL ($\mu g/m^3$)	Modeled Averaging Time	Modeled Emission Rate (lb/hr)	Basis of Emission Rate	Scalars or Factors Used?	Scalar/Factor in Use
CT-11B	CT_11B	All	Site-Wide		7664-41-7	ammonia		180	92	1-hr	52.00314484	Maximum allowable	No	
CT-12B	CT_12B	All	Site-Wide		7664-41-7	ammonia		180	92	1-hr	52.00314484	Maximum allowable	No	
CT-13B	CT_13B	All	Site-Wide		7664-41-7	ammonia		180	92	1-hr	52.00314484	Maximum allowable	No	
CT-14B	CT_14B	All	Site-Wide		7664-41-7	ammonia		180	92	1-hr	52.00314484	Maximum allowable	No	
NH3FUG	NH3FUG	All	Site-Wide		7664-41-7	ammonia		180	92	1-hr	0.0152076	Maximum allowable	No	
MSSFUG	MSSFUG	All	Site-Wide		7664-41-7	ammonia		180	92	1-hr	0.126784584	Maximum allowable	No	
CT-1A	CT_01A	All	Site-Wide		7664-41-7	ammonia		180	92	Annual	3.590864327	Maximum allowable	No	
CT-2A	CT_02A	All	Site-Wide		7664-41-7	ammonia		180	92	Annual	3.590864327	Maximum allowable	No	
CT-3A	CT_03A	All	Site-Wide		7664-41-7	ammonia		180	92	Annual	3.590864327	Maximum allowable	No	
CT-4A	CT_04A	All	Site-Wide		7664-41-7	ammonia		180	92	Annual	3.590864327	Maximum allowable	No	
CT-5A	CT_05A	All	Site-Wide		7664-41-7	ammonia		180	92	Annual	3.590864327	Maximum allowable	No	
CT-6A	CT_06A	All	Site-Wide		7664-41-7	ammonia		180	92	Annual	3.590864327	Maximum allowable	No	
CT-7A	CT_07A	All	Site-Wide		7664-41-7	ammonia		180	92	Annual	3.590864327	Maximum allowable	No	
CT-8A	CT_08A	All	Site-Wide		7664-41-7	ammonia		180	92	Annual	3.590864327	Maximum allowable	No	
CT-9A	CT_09A	All	Site-Wide		7664-41-7	ammonia		180	92	Annual	3.590864327	Maximum allowable	No	
CT-10A	CT_10A	All	Site-Wide		7664-41-7	ammonia		180	92	Annual	3.590864327	Maximum allowable	No	
CT-11A	CT_11A	All	Site-Wide		7664-41-7	ammonia		180	92	Annual	3.590864327	Maximum allowable	No	
CT-12A	CT_12A	All	Site-Wide		7664-41-7	ammonia		180	92	Annual	3.590864327	Maximum allowable	No	
CT-13A	CT_13A	All	Site-Wide		7664-41-7	ammonia		180	92	Annual	3.590864327	Maximum allowable	No	
CT-14A	CT_14A	All	Site-Wide		7664-41-7	ammonia		180	92	Annual	3.590864327	Maximum allowable	No	
CT-15A	CT_15A	All	Site-Wide		7664-41-7	ammonia		180	92	Annual	3.590864327	Maximum allowable	No	
CT-16A	CT_16A	All	Site-Wide		7664-41-7	ammonia		180	92	Annual	3.590864327	Maximum allowable	No	
CT-17A	CT_17A	All	Site-Wide		7664-41-7	ammonia		180	92	Annual	3.590864327	Maximum allowable	No	
CT-18A	CT_18A	All	Site-Wide		7664-41-7	ammonia		180	92	Annual	3.590864327	Maximum allowable	No	
CT-19A	CT_19A	All	Site-Wide		7664-41-7	ammonia		180	92	Annual	3.590864327	Maximum allowable	No	
CT-20A	CT_20A	All	Site-Wide		7664-41-7	ammonia		180	92	Annual	3.590864327	Maximum allowable	No	
CT-21A	CT_21A	All	Site-Wide		7664-41-7	ammonia		180	92	Annual	3.590864327	Maximum allowable	No	
CT-1B	CT_01B	All	Site-Wide		7664-41-7	ammonia		180	92	Annual	26.00157242	Maximum allowable	No	
CT-2B	CT_02B	All	Site-Wide		7664-41-7	ammonia		180	92	Annual	26.00157242	Maximum allowable	No	
CT-3B	CT_03B	All	Site-Wide		7664-41-7	ammonia		180	92	Annual	26.00157242	Maximum allowable	No	
CT-4B	CT_04B	All	Site-Wide		7664-41-7	ammonia		180	92	Annual	26.00157242	Maximum allowable	No	

Texas Commission on Environmental Quality

Electronic Modeling Evaluation Workbook (EMEW)

Speciated Emissions

Date: 8/3/2025
Permit #: TBD

Company Name: Pacifico GW LLC

Speciated Emissions by Model ID:

EPN	Model ID	Modeling Scenario	Review Context	Modeled Source Group ID (if entering multiple	CAS #	Chemical Species	Other Species	Short-Term ESL ($\mu g/m^3$)	Long-Term ESL ($\mu g/m^3$)	Modeled Averaging Time	Modeled Emission Rate (lb/hr)	Basis of Emission Rate	Scalars or Factors Used?	Scalar/Factor in Use
CT-5B	CT_05B	All	Site-Wide		7664-41-7	ammonia		180	92	Annual	26.00157242	Maximum allowable	No	
CT-6B	CT_06B	All	Site-Wide		7664-41-7	ammonia		180	92	Annual	26.00157242	Maximum allowable	No	
CT-7B	CT_07B	All	Site-Wide		7664-41-7	ammonia		180	92	Annual	26.00157242	Maximum allowable	No	
CT-8B	CT_08B	All	Site-Wide		7664-41-7	ammonia		180	92	Annual	26.00157242	Maximum allowable	No	
CT-9B	CT_09B	All	Site-Wide		7664-41-7	ammonia		180	92	Annual	26.00157242	Maximum allowable	No	
CT-10B	CT_10B	All	Site-Wide		7664-41-7	ammonia		180	92	Annual	26.00157242	Maximum allowable	No	
CT-11B	CT_11B	All	Site-Wide		7664-41-7	ammonia		180	92	Annual	26.00157242	Maximum allowable	No	
CT-12B	CT_12B	All	Site-Wide		7664-41-7	ammonia		180	92	Annual	26.00157242	Maximum allowable	No	
CT-13B	CT_13B	All	Site-Wide		7664-41-7	ammonia		180	92	Annual	26.00157242	Maximum allowable	No	
CT-14B	CT_14B	All	Site-Wide		7664-41-7	ammonia		180	92	Annual	26.00157242	Maximum allowable	No	
NH3FUG	NH3FUG	All	Site-Wide		7664-41-7	ammonia		180	92	Annual	0.0152076	Maximum allowable	No	
MSSFUG	MSSFUG	All	Site-Wide		7664-41-7	ammonia		180	92	Annual	0.000194947	Maximum allowable	No	
OILVENT1	LOV_01A	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	1-hr	0.01815	Maximum allowable	No	
OILVENT2	LOV_02A	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	1-hr	0.01815	Maximum allowable	No	
OILVENT3	LOV_03A	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	1-hr	0.01815	Maximum allowable	No	
OILVENT4	LOV_04A	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	1-hr	0.01815	Maximum allowable	No	
OILVENT5	LOV_05A	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	1-hr	0.01815	Maximum allowable	No	
OILVENT6	LOV_06A	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	1-hr	0.01815	Maximum allowable	No	
OILVENT7	LOV_07A	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	1-hr	0.01815	Maximum allowable	No	
OILVENT8	LOV_08A	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	1-hr	0.01815	Maximum allowable	No	
OILVENT9	LOV_09A	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	1-hr	0.01815	Maximum allowable	No	
OILVENT10	LOV_10A	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	1-hr	0.01815	Maximum allowable	No	
OILVENT11	LOV_11A	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	1-hr	0.01815	Maximum allowable	No	
OILVENT12	LOV_12A	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	1-hr	0.01815	Maximum allowable	No	
OILVENT13	LOV_13A	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	1-hr	0.01815	Maximum allowable	No	
OILVENT14	LOV_14A	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	1-hr	0.01815	Maximum allowable	No	
OILVENT15	LOV_15A	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	1-hr	0.01815	Maximum allowable	No	
OILVENT16	LOV_16A	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	1-hr	0.01815	Maximum allowable	No	
OILVENT17	LOV_17A	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	1-hr	0.01815	Maximum allowable	No	
OILVENT18	LOV_18A	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	1-hr	0.01815	Maximum allowable	No	
OILVENT19	LOV_19A	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	1-hr	0.01815	Maximum allowable	No	

Texas Commission on Environmental Quality

Electronic Modeling Evaluation Workbook (EMEW)

Speciated Emissions

Date: 8/3/2025
Permit #: TBD

Company Name: Pacifico GW LLC

Speciated Emissions by Model ID:

EPN	Model ID	Modeling Scenario	Review Context	Modeled Source Group ID (if entering multiple	CAS #	Chemical Species	Other Species	Short-Term ESL ($\mu g/m^3$)	Long-Term ESL ($\mu g/m^3$)	Modeled Averaging Time	Modeled Emission Rate (lb/hr)	Basis of Emission Rate	Scalars or Factors Used?	Scalar/Factor in Use
OILVENT20	LOV_20A	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	1-hr	0.01815	Maximum allowable	No	
OILVENT21	LOV_21A	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	1-hr	0.01815	Maximum allowable	No	
OILVENT22	LOV_01B	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	1-hr	0.01815	Maximum allowable	No	
OILVENT23	LOV_02B	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	1-hr	0.01815	Maximum allowable	No	
OILVENT24	LOV_03B	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	1-hr	0.01815	Maximum allowable	No	
OILVENT25	LOV_04B	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	1-hr	0.01815	Maximum allowable	No	
OILVENT26	LOV_05B	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	1-hr	0.01815	Maximum allowable	No	
OILVENT27	LOV_06B	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	1-hr	0.01815	Maximum allowable	No	
OILVENT28	LOV_07B	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	1-hr	0.01815	Maximum allowable	No	
OILVENT29	LOV_08B	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	1-hr	0.01815	Maximum allowable	No	
OILVENT30	LOV_09B	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	1-hr	0.01815	Maximum allowable	No	
OILVENT31	LOV_10B	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	1-hr	0.01815	Maximum allowable	No	
OILVENT32	LOV_11B	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	1-hr	0.01815	Maximum allowable	No	
OILVENT33	LOV_12B	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	1-hr	0.01815	Maximum allowable	No	
OILVENT34	LOV_13B	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	1-hr	0.01815	Maximum allowable	No	
OILVENT35	LOV_14B	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	1-hr	0.01815	Maximum allowable	No	
OILVENT1	LOV_01A	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	Annual	0.01815	Maximum allowable	No	
OILVENT2	LOV_02A	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	Annual	0.01815	Maximum allowable	No	
OILVENT3	LOV_03A	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	Annual	0.01815	Maximum allowable	No	
OILVENT4	LOV_04A	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	Annual	0.01815	Maximum allowable	No	
OILVENT5	LOV_05A	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	Annual	0.01815	Maximum allowable	No	
OILVENT6	LOV_06A	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	Annual	0.01815	Maximum allowable	No	
OILVENT7	LOV_07A	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	Annual	0.01815	Maximum allowable	No	
OILVENT8	LOV_08A	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	Annual	0.01815	Maximum allowable	No	
OILVENT9	LOV_09A	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	Annual	0.01815	Maximum allowable	No	
OILVENT10	LOV_10A	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	Annual	0.01815	Maximum allowable	No	
OILVENT11	LOV_11A	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	Annual	0.01815	Maximum allowable	No	
OILVENT12	LOV_12A	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	Annual	0.01815	Maximum allowable	No	
OILVENT13	LOV_13A	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	Annual	0.01815	Maximum allowable	No	
OILVENT14	LOV_14A	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	Annual	0.01815	Maximum allowable	No	
OILVENT15	LOV_15A	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	Annual	0.01815	Maximum allowable	No	

Texas Commission on Environmental Quality

Electronic Modeling Evaluation Workbook (EMEW)

Speciated Emissions

Date: 8/3/2025
Permit #: TBD

Company Name: Pacifico GW LLC

Speciated Emissions by Model ID:

EPN	Model ID	Modeling Scenario	Review Context	Modeled Source Group ID (if entering multiple	CAS #	Chemical Species	Other Species	Short-Term ESL ($\mu g/m^3$)	Long-Term ESL ($\mu g/m^3$)	Modeled Averaging Time	Modeled Emission Rate (lb/hr)	Basis of Emission Rate	Scalars or Factors Used?	Scalar/Factor in Use
OILVENT16	LOV_16A	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	Annual	0.01815	Maximum allowable	No	
OILVENT17	LOV_17A	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	Annual	0.01815	Maximum allowable	No	
OILVENT18	LOV_18A	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	Annual	0.01815	Maximum allowable	No	
OILVENT19	LOV_19A	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	Annual	0.01815	Maximum allowable	No	
OILVENT20	LOV_20A	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	Annual	0.01815	Maximum allowable	No	
OILVENT21	LOV_21A	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	Annual	0.01815	Maximum allowable	No	
OILVENT22	LOV_01B	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	Annual	0.01815	Maximum allowable	No	
OILVENT23	LOV_02B	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	Annual	0.01815	Maximum allowable	No	
OILVENT24	LOV_03B	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	Annual	0.01815	Maximum allowable	No	
OILVENT25	LOV_04B	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	Annual	0.01815	Maximum allowable	No	
OILVENT26	LOV_05B	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	Annual	0.01815	Maximum allowable	No	
OILVENT27	LOV_06B	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	Annual	0.01815	Maximum allowable	No	
OILVENT28	LOV_07B	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	Annual	0.01815	Maximum allowable	No	
OILVENT29	LOV_08B	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	Annual	0.01815	Maximum allowable	No	
OILVENT30	LOV_09B	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	Annual	0.01815	Maximum allowable	No	
OILVENT31	LOV_10B	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	Annual	0.01815	Maximum allowable	No	
OILVENT32	LOV_11B	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	Annual	0.01815	Maximum allowable	No	
OILVENT33	LOV_12B	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	Annual	0.01815	Maximum allowable	No	
OILVENT34	LOV_13B	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	Annual	0.01815	Maximum allowable	No	
OILVENT35	LOV_14B	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	Annual	0.01815	Maximum allowable	No	
TNK-DSL1	TNK_DSL1	All	Site-Wide		68334-30-5	diesel fuel		1000	100	1-hr	0.1091	Maximum allowable	No	
TNK-DSL2	TNK_DSL2	All	Site-Wide		68334-30-5	diesel fuel		1000	100	1-hr	0.1091	Maximum allowable	No	
TNK-DSL3	TNK_DSL3	All	Site-Wide		68334-30-5	diesel fuel		1000	100	1-hr	0.1091	Maximum allowable	No	
TNK-DSL4	TNK_DSL4	All	Site-Wide		68334-30-5	diesel fuel		1000	100	1-hr	0.1091	Maximum allowable	No	
TNK-DSL5	TNK_DSL5	All	Site-Wide		68334-30-5	diesel fuel		1000	100	1-hr	0.1091	Maximum allowable	No	
TNK-DSL6	TNK_DSL6	All	Site-Wide		68334-30-5	diesel fuel		1000	100	1-hr	0.1091	Maximum allowable	No	
TNK-DSL7	TNK_DSL7	All	Site-Wide		68334-30-5	diesel fuel		1000	100	1-hr	0.1091	Maximum allowable	No	
MSSFUG	MSSFUG	All	Site-Wide		68334-30-5	diesel fuel		1000	100	1-hr	8.5604	Maximum allowable	No	
TNK-DSL1	TNK_DSL1	All	Site-Wide		68334-30-5	diesel fuel		1000	100	Annual	0.001369863	Maximum allowable	No	
TNK-DSL2	TNK_DSL2	All	Site-Wide		68334-30-5	diesel fuel		1000	100	Annual	0.001369863	Maximum allowable	No	
TNK-DSL3	TNK_DSL3	All	Site-Wide		68334-30-5	diesel fuel		1000	100	Annual	0.001369863	Maximum allowable	No	

Texas Commission on Environmental Quality

Electronic Modeling Evaluation Workbook (EMEW)

Speciated Emissions

Date: 8/3/2025
Permit #: TBD

Company Name: Pacifico GW LLC

Speciated Emissions by Model ID:

EPN	Model ID	Modeling Scenario	Review Context	Modeled Source Group ID (if entering multiple	CAS #	Chemical Species	Other Species	Short-Term ESL ($\mu g/m^3$)	Long-Term ESL ($\mu g/m^3$)	Modeled Averaging Time	Modeled Emission Rate (lb/hr)	Basis of Emission Rate	Scalars or Factors Used?	Scalar/Factor in Use
TNK-DSL4	TNK_DSL4	All	Site-Wide		68334-30-5	diesel fuel		1000	100	Annual	0.001369863	Maximum allowable	No	
TNK-DSL5	TNK_DSL5	All	Site-Wide		68334-30-5	diesel fuel		1000	100	Annual	6.85E-04	Maximum allowable	No	
TNK-DSL6	TNK_DSL6	All	Site-Wide		68334-30-5	diesel fuel		1000	100	Annual	6.85E-04	Maximum allowable	No	
TNK-DSL7	TNK_DSL7	All	Site-Wide		68334-30-5	diesel fuel		1000	100	Annual	6.85E-04	Maximum allowable	No	
MSSFUG	MSSFUG	All	Site-Wide		68334-30-5	diesel fuel		1000	100	Annual	0.126643836	Maximum allowable	No	
FPUMP1	FPUMP1	All	Site-Wide		10024-97-2	nitrous oxide		4500	450	1-hr	0.002824122	Maximum allowable	No	
FPUMP2	FPUMP2	All	Site-Wide		10024-97-2	nitrous oxide		4500	450	1-hr	0.002824122	Maximum allowable	No	
EGEN1	EGEN01	All	Site-Wide		10024-97-2	nitrous oxide		4500	450	1-hr	0.03725124	Maximum allowable	No	
EGEN2	EGEN02	All	Site-Wide		10024-97-2	nitrous oxide		4500	450	1-hr	0.03725124	Maximum allowable	No	
EGEN3	EGEN03	All	Site-Wide		10024-97-2	nitrous oxide		4500	450	1-hr	0.03725124	Maximum allowable	No	
EGEN4	EGEN04	All	Site-Wide		10024-97-2	nitrous oxide		4500	450	1-hr	0.03725124	Maximum allowable	No	
EGEN5	EGEN05	All	Site-Wide		10024-97-2	nitrous oxide		4500	450	1-hr	0.03725124	Maximum allowable	No	
EGEN6	EGEN06	All	Site-Wide		10024-97-2	nitrous oxide		4500	450	1-hr	0.03725124	Maximum allowable	No	
EGEN7	EGEN07	All	Site-Wide		10024-97-2	nitrous oxide		4500	450	1-hr	0.03725124	Maximum allowable	No	
EGEN8	EGEN08	All	Site-Wide		10024-97-2	nitrous oxide		4500	450	1-hr	0.03725124	Maximum allowable	No	
EGEN9	EGEN09	All	Site-Wide		10024-97-2	nitrous oxide		4500	450	1-hr	0.03725124	Maximum allowable	No	
EGEN10	EGEN10	All	Site-Wide		10024-97-2	nitrous oxide		4500	450	1-hr	0.03725124	Maximum allowable	No	
EGEN11	EGEN11	All	Site-Wide		10024-97-2	nitrous oxide		4500	450	1-hr	0.03725124	Maximum allowable	No	
EGEN12	EGEN12	All	Site-Wide		10024-97-2	nitrous oxide		4500	450	1-hr	0.03725124	Maximum allowable	No	
EGEN13	EGEN13	All	Site-Wide		10024-97-2	nitrous oxide		4500	450	1-hr	0.03725124	Maximum allowable	No	
EGEN14	EGEN14	All	Site-Wide		10024-97-2	nitrous oxide		4500	450	1-hr	0.03725124	Maximum allowable	No	
EGEN15	EGEN15	All	Site-Wide		10024-97-2	nitrous oxide		4500	450	1-hr	0.03725124	Maximum allowable	No	
FPUMP1	FPUMP1	All	Site-Wide		10024-97-2	nitrous oxide		4500	450	Annual	0.000141206	Maximum allowable	No	
FPUMP2	FPUMP2	All	Site-Wide		10024-97-2	nitrous oxide		4500	450	Annual	0.000141206	Maximum allowable	No	
EGEN1	EGEN01	All	Site-Wide		10024-97-2	nitrous oxide		4500	450	Annual	0.001862562	Maximum allowable	No	
EGEN2	EGEN02	All	Site-Wide		10024-97-2	nitrous oxide		4500	450	Annual	0.001862562	Maximum allowable	No	
EGEN3	EGEN03	All	Site-Wide		10024-97-2	nitrous oxide		4500	450	Annual	0.001862562	Maximum allowable	No	
EGEN4	EGEN04	All	Site-Wide		10024-97-2	nitrous oxide		4500	450	Annual	0.001862562	Maximum allowable	No	
EGEN5	EGEN05	All	Site-Wide		10024-97-2	nitrous oxide		4500	450	Annual	0.001862562	Maximum allowable	No	
EGEN6	EGEN06	All	Site-Wide		10024-97-2	nitrous oxide		4500	450	Annual	0.001862562	Maximum allowable	No	
EGEN7	EGEN07	All	Site-Wide		10024-97-2	nitrous oxide		4500	450	Annual	0.001862562	Maximum allowable	No	

Texas Commission on Environmental Quality

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Speciated Emissions

Date: 8/3/2025
Permit #: TBD

Company Name: Pacifico GW LLC

Speciated Emissions by Model ID:

EPN	Model ID	Modeling Scenario	Review Context	Modeled Source Group ID (if entering multiple	CAS #	Chemical Species	Other Species	Short-Term ESL ($\mu g/m^3$)	Long-Term ESL ($\mu g/m^3$)	Modeled Averaging Time	Modeled Emission Rate (lb/hr)	Basis of Emission Rate	Scalars or Factors Used?	Scalar/Factor in Use
EGEN8	EGEN08	All	Site-Wide		10024-97-2	nitrous oxide		4500	450	Annual	0.001862562	Maximum allowable	No	
EGEN9	EGEN09	All	Site-Wide		10024-97-2	nitrous oxide		4500	450	Annual	0.001862562	Maximum allowable	No	
EGEN10	EGEN10	All	Site-Wide		10024-97-2	nitrous oxide		4500	450	Annual	0.001862562	Maximum allowable	No	
EGEN11	EGEN11	All	Site-Wide		10024-97-2	nitrous oxide		4500	450	Annual	0.001862562	Maximum allowable	No	
EGEN12	EGEN12	All	Site-Wide		10024-97-2	nitrous oxide		4500	450	Annual	0.001862562	Maximum allowable	No	
EGEN13	EGEN13	All	Site-Wide		10024-97-2	nitrous oxide		4500	450	Annual	0.001862562	Maximum allowable	No	
EGEN14	EGEN14	All	Site-Wide		10024-97-2	nitrous oxide		4500	450	Annual	0.001862562	Maximum allowable	No	
EGEN15	EGEN15	All	Site-Wide		10024-97-2	nitrous oxide		4500	450	Annual	0.001862562	Maximum allowable	No	
MSSFUG	MSSFUG	All	Site-Wide		111-76-2	2-butoxyethanol		2900	3700	1-hr	2.283333333	Maximum allowable	No	
MSSFUG	MSSFUG	All	Site-Wide		111-76-2	2-butoxyethanol		2900	3700	Annual	0.16	Maximum allowable	No	
MSSFUG	MSSFUG	All	Site-Wide		68439-46-3	alcohols, C9-C11, ethoxylated		600	60	1-hr	4.566666667	Maximum allowable	No	
MSSFUG	MSSFUG	All	Site-Wide		68439-46-3	alcohols, C9-C11, ethoxylated		600	60	Annual	0.32	Maximum allowable	No	
NGFUG	NGFUG	All	Site-Wide		75-08-1	ethyl mercaptan		1	1.3	1-hr	5.97593E-05	Maximum allowable	No	
MSSFUG	MSSFUG	All	Site-Wide		75-08-1	ethyl mercaptan		1	1.3	1-hr	0.005566091	Maximum allowable	No	
NGFUG	NGFUG	All	Site-Wide		75-08-1	ethyl mercaptan		1	1.3	Annual	0.000261746	Maximum allowable	No	
MSSFUG	MSSFUG	All	Site-Wide		75-08-1	ethyl mercaptan		1	1.3	Annual	3.84261E-05	Maximum allowable	No	

Texas Commission on Environmental Quality

Electronic Modeling Evaluation Workbook (EMEW)

NAAQS-SPL Modeling Results

Date: 8/3/2025
Permit #: TBD

Company Name: Pacifico GW LLC

Table 1. Project-Related Modeling Results for State Property Line

Pollutant	Averaging Time	GLCmax (µg/m^3)	De Minimis (µg/m^3)
SO_2	1-hr		20.42
H_2SO_4	1-hr		1
H_2SO_4	24-hr		0.3
H_2S	1-hr		2.16 *(If property is residential, recreational, business, or commercial)*
H_2S	1-hr		3.24 *(If property is not residential, recreational, business, or commercial)*

Table 2. Site-Wide Modeling Results for State Property Line

Pollutant	Averaging Time	GLCmax (µg/m^3)	Standard (µg/m^3)
SO_2	1-hr	3.1331	1021
H_2SO_4	1-hr	0.46281	50
H_2SO_4	24-hr	0.12804	15
H_2S	1-hr	0.1248	108 *(If property is residential, recreational, business, or commercial)*
H_2S	1-hr		162 *(If property is not residential, recreational, business, or commercial)*

Texas Commission on Environmental Quality

Electronic Modeling Evaluation Workbook (EMEW)

Health Effect Modeling Results

Date: 8/3/2025
Permit #: TBD

Company Name: Pacifico GW LLC

Modeled Health Effect Results (MERA Guidance):

Chemical Species	CAS Number	Averaging Time	ESL (µg/m^3)	Step 3: 10% ESL Modeled GLCmax (µg/m^3)	Step 4 - Production: 25% ESL Production GLCmax since most recent site wide modeling (µg/m^3)	Step 4 - Production: 10% ESL Production Project Only GLCmax (µg/m^3)	Step 4 - MSS: 50% ESL MSS GLCmax since most recent site wide modeling (µg/m^3)	Step 4 - MSS: 25% ESL MSS Project Only GLCmax (µg/m^3)	Step 5 - MSS Only: Full ESL MSS GLCmax (µg/m^3)	Step 5 - Hours of Exceedance: 1X ESL GLCmax MSS Hours of Exceedance	Step 5 - Hours of Exceedance: 2X ESL GLCmax MSS Hours of Exceedance	Step 5 - Hours of Exceedance: 4X ESL GLCmax MSS Hours of Exceedance	Step 5 - Hours of Exceedance: 10X ESL GLCmax MSS Hours of Exceedance	Step 6: Ratio Test Was Step 6 relied on to fall out of the MERA?
ammonia	7664-41-7	1-hr	180											
ammonia	7664-41-7	Annual	92											
RHT base oils	RHT base oils	1-hr	1000											
RHT base oils	RHT base oils	Annual	100											
diesel fuel	68334-30-5	1-hr	1000											
diesel fuel	68334-30-5	Annual	100											

Texas Commission on Environmental Quality

Electronic Modeling Evaluation Workbook (EMEW)

Health Effect Modeling Results

Date: 8/3/2025
Permit #: TBD

Company Name: Pacifico GW LLC

Modeled Health Effect Results (MERA Guidance):

Chemical Species	CAS Number	Averaging Time	ESL (µg/m^3)	Step 7: Full ESL Site Wide GLCmax (µg/m^3)	Step 7: GLCmax Receptor Type	Step 7: Full ESL Site Wide GLCni (µg/m^3)	Step 7: GLCni Receptor Type	Step 7: Full ESL Site Wide GLCni Location Easting: X (m)	Step 7: Full ESL Site Wide GLCni Location Northing: Y (m)	Step 7 - Hours of Exceedance: 1X ESL GLCni Hours of Exceedance	Step 7 - Hours of Exceedance: 2X ESL GLCmax Hours of Exceedance	Step 7 - Hours of Exceedance: 4X ESL GLCmax Hours of Exceedance	Step 7 - Hours of Exceedance: 10X ESL GLCmax Hours of Exceedance
ammonia	7664-41-7	1-hr	180	29.37109									
ammonia	7664-41-7	Annual	92	0.68175									
RHT base oils	RHT base oils	1-hr	1000	4.89094									
RHT base oils	RHT base oils	Annual	100	0.06437									
diesel fuel	68334-30-5	1-hr	1000	231.89034									
diesel fuel	68334-30-5	Annual	100	0.01066									

Texas Commission on Environmental Quality

Electronic Modeling Evaluation Workbook (EMEW)

Modeling File Names

Date: 8/3/2025
Permit #: TBD

Company Name: Pacifico GW LLC

Model File Base Name	Pollutant	Averaging Time	File Extensions	Additional File Description
PECOS_FSTDRT20M	All	All	*.pfl, *.sfc	surface and upper air met files
aersurface	All	All	*.inp, *out	AERSURFACE input and output files
Pacifico_2020_30SO2	SO2	1-hr	*.dta, .lst, .grf, .sum	project / side-wide
Pacifico_2020_H2S	H2S	1-hr	*.dta, .lst, .grf, .sum	project / side-wide
Pacifico_2020_H2SO4	H2SO4	1-hr	*.dta, .lst, .grf, .sum	project / side-wide
Pacifico_2020_H2SO4	H2SO4	24-hr	*.dta, .lst, .grf, .sum	project / side-wide
Pacifico_2020_01NH3	ammonia	1-hr	*.dta, .lst, .grf, .sum	project / side-wide
Pacifico_2020_99NH3	ammonia	Annual	*.dta, .lst, .grf, .sum	project / side-wide
Pacifico_2020_01LUBE	RHT base oils	1-hr	*.dta, .lst, .grf, .sum	project / side-wide
Pacifico_2020_99LUBE	RHT base oils	Annual	*.dta, .lst, .grf, .sum	project / side-wide
Pacifico_2020_01DIES	diesel fuel	1-hr	*.dta, .lst, .grf, .sum	project / side-wide
Pacifico_2020_99DIES	diesel fuel	Annual	*.dta, .lst, .grf, .sum	project / side-wide

Appendix F
Professional Engineer Certification

- Professional Engineer (P.E.) Certification Seal

Professional Engineer Certification

I, Bruce Broberg, a registered professional engineer in the State of Texas, Registration No. 54960, certify that this permit amendment application for Pacifico GW LLC was prepared by me or by others under my direct supervision.

Bruce A. Broberg
Name of Professional Engineer

Signature

54960
Registration Number

Texas
State

August 4, 2025
Date

Texas Registered Engineering Firm 3775

TRC Environmental Corporation

Seal



PSD Modeling Protocol and Initial Modeling Impacts Summary

Pacifico GW LLC
GW Ranch Energy Center

Pecos County, Texas

August 2025

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Section 1
Project Identification Information

This document presents the proposed air dispersion modeling for evaluating the air quality impacts resulting from the construction and operation of a new natural gas-fired power plant on an approximately 8,400-acre site in Pecos County, Texas.

TRC Environmental Corporation (TRC) has prepared this protocol following methodologies and procedures of the Texas Commission on Environmental Quality (TCEQ) and United States Environmental Protection Agency (USEPA).

To simplify the review of this protocol, it has been written to closely follow the order of the items listed in the Reporting Requirements (Appendix P) of the TCEQ's *Air Quality Modeling Guidelines, APDG 6232, June 2024* (AQMG).

Applicant:	Pacifico GW LLC
Facility:	GW Ranch Energy Center
Regulated Entity Number:	TBD
Permit Application Numbers:	TBD
Nearest City:	Fort Stockton
County:	Pecos County
Applicant's Modeler:	TRC Environmental Corporation

Section 2
Project Overview

Pacifico GW LLC (Pacifico) is proposing to construct and operate a new natural gas-fired simple cycle power plant on an approximately 8,400-acre site in Pecos County, Texas. The new power plant (the Project) will operate under the name GW Ranch Energy Center (GW Ranch). GW Ranch will provide electricity to an on-site Artificial Intelligence (AI)-focused data center campus and will not be capable of selling electricity to or receiving power from the local utility power distribution system.

The Project will consist of the installation of fourteen (14) large-frame (H-Class, HL-Class, or J-Class) combustion turbines, twenty-one (21) Siemens Energy SGT-800 combustion turbines, and ancillary equipment. The Project's nominal generation capacity will be approximately 5,000 megawatts (MW). The turbines will be fired exclusively with pipeline quality natural gas.

An air quality analysis (AQA) will be conducted to demonstrate that conservatively calculated emissions associated with the Project will not cause or contribute to an exceedance of the National Ambient Air Quality Standards (NAAQS), Prevention of Significant Deterioration (PSD) increment consumption limits, or TCEQ property line standards. A state health effects analysis will be performed to demonstrate that impacts from the Project will not cause or contribute to adverse health effects, odor nuisance potentials, or effects with respect to vegetation or corrosion. The TCEQ state property line standard and state health effects analyses are included in the TCEQ Electronic Modeling Evaluation Workbook (EMEW) provided as Attachment D and are not further discussed in this PSD protocol. Additionally, impacts from the Project will not cause or contribute to adverse effects with respect to growth, visibility, and soils.

2.1 Type of Permit Review

Pecos County is designated as an attainment or unclassifiable area with respect to the NAAQS for all criteria pollutants. The Project will result in emissions of nitrogen oxides (NO_X), volatile organic compounds (VOC), carbon monoxide (CO), particulate matter (PM), particulate matter with diameters of 10 microns or less (PM_{10}), particulate matter with diameters of 2.5 microns or less ($PM_{2.5}$), sulfur dioxide (SO_2), sulfuric acid (H_2SO_4), and ammonia (NH_3). This Project will trigger PSD review for Ozone through pre-cursor VOC and NO_X emissions as well as trigger PSD review for CO, PM_{10}, $PM_{2.5}$, NO_X, and SO_2. Table 2-1 below provides a summary of PSD applicability for each PSD-regulated pollutant.

Table 2-1 Prevention of Significant Deterioration Regulatory Threshold Evaluation

Pollutant	Potential to Emit (tpy)	PSD Major Source Threshold (tpy)	Exceeds Threshold?	PSD SER (tpy)	Exceeds Threshold?	PSD Review Applies?
NO_X	2,830.28	250	Yes			Yes
CO	5,955.12	250	Yes			Yes
SO_2	397.70	250	Yes			Yes
PM	998.82	250	Yes			Yes
PM_{10}	995.03	250	Yes			Yes
$PM_{2.5}$	991.26	250	Yes			Yes
VOC	837.99	250	Yes			Yes
H_2SO_4	60.66	250	No	7	Yes	Yes

2.2 Air Constituents Evaluated

As discussed in Section 2.1, the Project will trigger PSD review for NO_X, CO, SO_2, PM_{10}, and $PM_{2.5}$. To satisfy PSD review requirements, these pollutants were evaluated for comparison with the NAAQS and PSD increment consumption limits.

The TCEQ has implemented a state-specific procedure for evaluation of ground-level concentrations of SO_2, hydrogen sulfide (H_2S), and H_2SO_4. Additionally, TCEQ requires a Modeling and Effects Review Applicability (MERA) assessment of air toxics for which Effects Screening Levels (ESLs) have been established. These analyses are discussed in further detail in Section 14. An electronic copy of the TCEQ EMEW summarizing the inputs and results of the TCEQ state modeling conducted for the Project is provided in Attachment D.

Section 3
Area Map

The Project will be situated on an approximately 8,400-acre site in Pecos County, Texas. The Project involves the development of approximately 1,500 acres devoted to the power generation facilities and data center campus. The site is located on Highway 18, approximately 17 miles north of Fort Stockton, in Pecos County.

The enclosed Area Map, **Figure 1-1** in the permit application, illustrates the location of the property and surrounding area. The area map includes a true north arrow, accurate scale, the entire plant property, the location of the property relative to prominent geographical features, and significant landmarks. Figure 3-1 includes a circle of 3,000-ft radius and a circle of one-mile radius from the property boundary. The area map includes current aerial photography to depict the land use surrounding GW Ranch.

As shown, there are no schools located within a 3,000-ft radius from the site.

There are no PSD Class I areas within 100 kilometers of the site. The nearest Class I areas are Big Bend National Park, approximately 160 kilometers to the south; and Carlsbad Caverns National Park and Guadalupe Mountains National Park, both approximately 180 km to the northwest. A figure illustrating the location of all nearby Class I areas will be provided in the final AQA.

Section 4
Plot Plan

The enclosed Plot Plans, **Figures 1-2, 1-2A, 1-2B, 1-2C,** and **1-2D** in the permit application, show the scale, north direction, two benchmark locations, all property lines, and all emission points associated with the facilities to be permitted. Fencing is in place along all property boundaries.

A detailed modeling plot plan showing the names and locations of all emission points and structures relative to the GW Ranch's property boundary will be provided with the final AQA.

Section 5
Air Quality Monitoring Data

Estimates for the current ambient air background concentrations at the Project site may be required for two distinct and separate purposes: (1) to demonstrate that the ambient air concentrations of PSD-significant pollutants are currently in compliance with the NAAQS and (2) for use in a full impact NAAQS modeling analysis.

5.1 Available Background Concentrations

Based on a review of the United States Environmental Protection Agency's (USEPA) AirData website, Pacifico proposes using data collected at the monitoring stations listed in Table 5-1 for use in the NAAQS compliance demonstrations.

Table 5-1 Proposed Ambient Air Background Monitors and Data

Pollutant	Monitor Name and Monitor ID	County	Averaging Period	Background Concentration		Form
				(ppb)	($\mu g/m^3$)	
NO_2	Calaveras Lake 48-029-0059	Bexar	1-hour	34	63.92	3-Year Average of 98th Percentiles of the Daily Maximums - 2022-2024
			Annual	5	9.40	1-Year Average of 1st Highs 2024
PM_{10}	Earhart 48-113-0061	Dallas	24-hour		68	3-Year Max of 2nd Highs 2022-2024
$PM_{2.5}$	Odessa Gonzales 48-135-1014	Ector	24-hour		18.3	3-Year Average of 98th Percentiles of the Daily Maximums - 2022-2024
			Annual		7.2	3-Year Average of 1st Highs 2022-2024
O_3	Ivanhoe 48-141-0029	El Paso	8-hour	64 ppb		3-Year Average of 4th Highs 2022-2024

The appropriateness of using data from these monitoring stations to establish representative background concentrations is discussed in Sections 5.2 and 5.3. Guidance from the TCEQ's *Air Quality Modeling Guidelines* (AQMG) was followed in selecting the form of the monitored concentration for each pollutant and averaging period. The data collected from these monitors meets USEPA requirements for completeness.

5.2 Representativeness of the Selected Monitoring Stations

Following guidance contained in TCEQ's AQMG, TCEQ's Background Concentration Determination for Use in NAAQS Analyses, September 2, 1998, and USEPA's Ambient Monitoring Guidelines for Prevention of Significant Deterioration (PSD), USEPA-450/4-87-007, May 1987 Pacifico concludes, as described below, that the air quality monitoring data used to establish background concentrations is conservatively representative of the area around the Project.

TCEQ's 2023 Point Source Emission Inventory (PSEI) data was used to compare emissions within 15 km of the Project and emissions within 10 km of the selected monitors. In addition, EPA's 2020 National Emissions Inventory (NEI) data was used to compare county-wide emissions for the Project and the selected monitors.

There are no NO_2 monitors in Pecos County or any of the adjacent counties. Pacifico proposes to use data from the Calaveras Lake monitor (AQS ID 48-029-0059) in Bexar County as a representative background. A comparison of TCEQ's 2023 PSEI data shows 21.27 tpy NO_X within 15 km of the Project and 5,764.50 tpy NOx within 10 km of the Calaveras Lake monitor. In addition, a comparison of EPA's 2020 NEI data shows 5,351.81 tpy NO_X for Pecos County and 23,663.08 tpy NO_X for Bexar County. Additionally, the population (and consequent automobile traffic) is much larger in the monitor location as compared to the Project site. Lastly, the proposed monitor location shares similar topography as the Project site, which is relatively flat, and is not located in a coastal area. For these reasons, Pacifico believes that the use of the Calaveras Lake monitor as a representative and conservative background for NO_2 is appropriate.

There are no PM_{10} monitors in Pecos County or any of the adjacent counties. Pacifico proposes to use data from the Earhart monitor (AQS ID 48-113-0061) in Dallas County as a conservatively representative background. A comparison of TCEQ's 2023 PSEI data shows 1.49 tpy PM_{10} within 15 km of the Project and 179.32 tpy PM_{10} within 10 km of the Earhart monitor. In addition, a comparison of EPA's 2020 NEI data shows 3,069.20 tpy PM_{10} for Pecos County and 28,221.48 tpy PM_{10} for Dallas County. Additionally, the population (and consequent automobile traffic) is much larger in the Dallas County monitor location as compared to the Project site. Lastly, the Earhart monitor location shares similar topography as the Project site, which is relatively flat, and is not located in a coastal area. For these reasons, Pacifico believes that the use of the Earhart monitor to provide representative and conservative background data for PM_{10} is appropriate.

There are no $PM_{2.5}$ monitors in Pecos County or any of the adjacent counties. Pacifico proposes to use data from the Odessa Gonzales monitor (AQS ID 48-135-1014) in Ector County as a

conservatively representative background. A comparison of TCEQ's 2023 PSEI data shows 1.49 tpy $PM_{2.5}$ within 15 km of the Project and 144.63 tpy $PM_{2.5}$ within 10 km of the Odessa Gonzales monitor. In addition, a comparison of EPA's 2020 NEI data shows 831.33 tpy $PM_{2.5}$ for Pecos County and 888.93 tpy $PM_{2.5}$ for Ector County. Additionally, the population (and consequent automobile traffic) is much larger in the Ector County monitor location as compared to the Project site. Lastly, the Odessa Gonzales monitor location shares similar topography as the Project site, which is relatively flat, and is not located in a coastal area. For these reasons, Pacifico believes that the use of the Odessa Gonzales monitor to provide representative and conservative background data for $PM_{2.5}$ is appropriate.

There are no O_3 monitors in Pecos County or any of the adjacent counties. Pacifico proposes to use data from the Ivanhoe monitor (AQS ID 48-141-0029) in El Paso County as a conservatively representative background. A comparison of TCEQ's 2023 PSEI data shows 21.27 tpy NO_X and 16.38 tpy VOC within 15 km of the Project and 643.07 tpy NO_X and 575.09 tpy VOC within 10 km of the Ivanhoe monitor. In addition, a comparison of EPA's 2020 NEI data shows 5,351.81 tpy NO_X and 35,429.84 tpy VOC for Pecos County and 12,648.33 tpy NO_X and 13,713.66 tpy VOC for El Paso County. Additionally, the population (and consequent automobile traffic) is much larger in the El Paso County monitor location as compared to the Project site. Lastly, the Ivanhoe monitor location shares similar topography as the Project site, which is relatively flat, and is not located in a coastal area. For these reasons, Pacifico believes that the use of the Ivanhoe monitor to provide representative and conservative background data for O_3 is appropriate.

Tables summarizing the PSEI data calculations as well as a map showing the locations of the proposed ambient air monitoring sites will be provided in the final AQA.

Additionally, as a conservative measure, a search for recently permitted sources that may not necessarily be reflected in the background monitoring was conducted. The search concluded that all recently permitted sources did not need to be included due to the distance from the Project or other reasons. The final AQA will include the recently permitted search analysis files.

5.3 PSD Ambient Monitoring Requirement

PSD review may require project permit applicants to conduct pre-construction ambient monitoring to characterize existing ambient air quality. However, if dispersion model predicted impacts are less than USEPA's Significant Monitoring Concentrations (SMCs), as shown in Table 5-2, preconstruction monitoring would be waived. The Project will emit PSD-significant amounts of NO_2, CO, $PM_{2.5}$, PM_{10}, SO_2, and O_3. Data collected at the monitoring stations discussed previously herein offer conservative estimates of the background concentrations for the area. Therefore, the applicant proposes to use monitoring data in lieu of performing

preconstruction monitoring for any pollutant with preliminary impacts analysis results greater than SMC values.

Table 5-2 Significant Monitoring Concentrations

Pollutant	Averaging Period	SMC ($\mu g/m^3$)
CO	8-hour	575
NO_2	Annual	14
PM_{10}	24-hour	10
$PM_{2.5}$	24-hour	--[a]
SO_2	24-hour	13
O_3	8-hour	--[b]

Notes:
[a] Per Sierra Club vs. USEPA, the pre-construction requirement cannot be waived for $PM_{2.5}$.
[b] Ozone ambient impact analysis is required, including pre-construction monitoring, when a project proposes a net emission increase of 100 tpy or more of NOx or VOCs. The ozone impact analysis is discussed in Section 7.2.2.

The DC Circuit Court vacated the $PM_{2.5}$ SMC in its 2013 ruling (Sierra Club vs. USEPA), ruling that the USEPA could not "waive" the pre-construction monitoring requirement for $PM_{2.5}$. Subsequent USEPA guidance indicates that existing air quality monitoring data, if deemed representative, can be used to satisfy pre-construction monitoring requirements.

Section 6
Modeling Emissions Inventory

6.1 On-Property Sources

As discussed in Section 2, Pacifico has submitted a permit application to authorize a new natural gas-fired power plant. Emission sources associated with the Project include:

- Fourteen (14) large-frame combustion turbines;
- Twenty-one (21) Siemens SGT-800 combustion turbines;
- Two (2) natural gas-fired supplemental engine generators used for supplemental power generation;
- Nineteen (19) dew point heaters, operating on pipeline quality natural gas;
- Fifteen (15) diesel-fired emergency generator engines;
- Two (2) diesel-fired emergency firewater pumps;
- Seven (7) diesel storage tanks;
- Nineteen (19) hybrid Wet Surface Air Coolers (WSAC);
- Combustion lube oil recirculation systems with lube oil vents for each turbine;
- Piping component fugitive emissions from natural gas system and ammonia system piping components; and
- Maintenance activities on the turbines.

A table summarizing the Project-related emission sources and the emission rates modeled is included in Attachment A. This table also provides a cross-reference between the modeling identification numbers and the Emission Point Numbers (EPNs) listed in the NSR Workbook.

6.2 Off-Property Sources

Off-property sources with the potential to contribute to the area of significant impact were included in the modeling for those constituents and averaging periods that were over the SIL.

The off-property sources were obtained from the TCEQ by requesting a retrieval of the Air Permits Allowable Database (APAD). The APAD system is the TCEQ's representation of a complete inventory and replaced the Point Source Data Base (PSDB) in 2013. The TCEQ published a "*Fact Sheet – Air Dispersion Modeling Retrievals from the Air Permits Allowable Database (APAD),*" which states that compared to PSDB retrievals, only sources within 50 km of the

coordinates provided are included. Therefore, the APAD retrieval was used in the modeling and includes all sources that are within a 50 km radius of the Project.

The APAD sources were reviewed for completeness and accuracy. Where source parameters were missing from APAD, attempts were made to obtain actual parameters through the review of TCEQ online records (emission inventories and permit applications). Where actual data was not able to be determined, TCEQ default pseudo-point parameters were used.

Attachment B provides a combined summary of the NO_x, PM_{10}, and $PM_{2.5}$ off-property sources obtained from APAD. All revisions made to the off-property inventory have been clearly documented on a source-by-source basis.

6.3 Stack Parameter Justification

6.3.1 Good Engineering Practice Stack Height

Each source was modeled at its physical release height or at the BPIP-calculated GEP stack height, whichever is lower.

6.3.2 Stack Parameters – Project Sources

The emission release parameters for on-site sources are presented below:

Turbine Stacks

The turbine stacks (EPNs: CT-1A through CT-21A, and CT-1B through CT-14B) were modeled as point sources with exhaust parameter values (i.e., velocities, diameters, and temperatures) properly identified to calculate the buoyancy and momentum rise of their emissions. The stack parameter values were based on turbine manufacturer performance data and engineering design information, and represent the worst-case stack parameters from all scenarios and turbine make/models under consideration.

Specifically for the large-frame combustion turbine sources (EPNs: CT-1B through CT-14B), the Project is using an "envelope" approach for quantifying the worst-case emission rates and stack parameters. The approach utilizes the worst-case emission rates and worst-case stack discharge parameters across four (4) potential turbine manufacturers for the AQA, and for establishing the maximum allowable emission rates (MAER). The approach establishes an upper bound or "envelope" of potential emissions, representing the highest possible operating and emissions scenario to allow for selection of a turbine OEM in the future that meets the proposed permit emission limits and operating specifications. As such, the envelope ensures a conservative

estimate of emissions in combination with worst-case stack discharge parameters that has been shown to be limited in such a way as to protect applicable air quality standards.

Engines

The firewater pumps (EPNs: FPUMP1 and FPUMP2), emergency engines (EPNs: EGEN1 through EGEN15), and supplemental engine generators (EPNs: ENGINE-1 and ENGINE-2) were modeled as point sources with exhaust parameter values (i.e., velocities, diameters, and temperatures) properly identified to calculate the buoyancy and momentum rise of their emissions. The stack parameter values were based on engineering design information.

Heaters

The dewpoint heaters (EPNs: DPHEAT1 through DPHEAT19) were modeled as point sources with exhaust parameter values (i.e., velocities, diameters, and temperatures) properly identified to calculate the buoyancy and momentum rise of their emissions. The stack parameter values were based on engineering design information.

Fugitive Source Parameters

Fugitive emissions from the wet surface air coolers (EPNs: CO-1 through CO-19) were modeled as a pseudo-point source at the vent's approximate release height.

Fugitive emissions from the lube oil vents (EPNs: OILVENT1 through OILVENT35) were modeled as a pseudo-point source at the vent's approximate release height.

Natural gas component fugitives (EPN: NGFUG) corresponding to potential piping losses were modeled as a small 1 meter x 1 meter area source with a release height of 1 meter. This conservatively represents the footprint and release height of the fugitives.

Ammonia component fugitives (EPN: NH3FUG) correspond to potential piping losses surrounding the Selective Catalyst Reduction (SCR) units. These fugitive emissions were modeled as a small 1 meter x 1 meter area source with a release height of 1 meter. This conservatively represents the footprint and release height of the fugitives.

Proposed inherently low emitting (ILE) turbine maintenance activities (EPN: MSSFUG) that may generate fugitive emissions were modeled as a small 1 meter x 1 meter area source with a release height of 1 meter. This conservatively represents the footprint and release height of the ILE activities.

6.3.3 Turbine Startup Shutdown Scenarios

Higher emission rates have been quantified for NO_X and CO to account for turbine startup/shutdown (SU/SD). These emissions were conservatively modeled as occurring every hour of the year. All 21 SGT-800 turbines and all 14 large-frame turbines were modeled with the higher SUSD rates for 1-hour CO and 8-hour CO NAAQS analyses. Two scenarios were modeled for 1-hour NO_2 NAAQS analysis:

1. Two (2) large-frame turbines and ten (10) SGT-800 turbines modeled with SU/SD rates; all other turbines modeled with routine rates
2. Three (3) large-frame turbines modeled with SU/SD rates; all other turbines modeled with routine rates

6.3.4 Emergency Equipment Emissions

The Project includes fifteen diesel-fired emergency generators (EPNs: EGEN1 through EGEN15) and two diesel-fired firewater pumps (EPNs: FPUMP1 and FPUMP2). Emissions associated with the emergency readiness testing of these engines were modeled.

Pacifico plans to test the emergency equipment according to the manufacturer's recommended testing schedules. A typical testing schedule for emergency engines is testing each engine once per month for a period of approximately 60 minutes. The modeling included a maximum of 60 minutes of testing emissions for the following modeled averaging periods: 8-hour CO, 24-hour PM_{10}, and 24-hour $PM_{2.5}$. Specifically, 8-hour emissions equal the hourly emissions multiplied by 1/8, and 24-hour emissions equal the hourly emissions multiplied by 1/24.

The USEPA's *Additional Clarification Regarding Application of Appendix W Modeling Guidance for the 1-hour NO2 National Ambient Air Quality Standard*; March 1, 2011 states that compliance demonstrations for the 1-hour NO_2 NAAQS be based on emission scenarios that can logically be assumed to be relatively continuous or which occur frequently enough to contribute significantly to the annual distribution of daily maximum 1-hour concentrations. As such, the 1-hour NO_2 emissions associated with these intermittent sources will be modeled per USEPA guidelines, multiplying the maximum hourly emission rate by the ratio of the proposed hours per year and total available hours per year. The emission calculations include a conservative annual emissions estimate corresponding to 100 hours per year. Therefore, the modeling of 1-hour NO_2 emissions associated with these intermittent sources was conservatively modeled using the annualized emissions testing schedule.

The emissions associated with emergency equipment operating during an actual emergency were not modeled because the proposed authorization does not include such emissions.

6.3.5 NO_X-to-NO_2 Conversion

Following guidance included in the USEPA's *Guideline on Air Quality Models; Appendix W to 40 CFR Part 51; January 17, 2017*; the Tier 2 default Ambient Ratio Method 2 (ARM2) NO_X-to-NO_2 conversion was utilized within the AERMOD model. The Appendix W default minimum ambient ratio of 0.5 and the maximum ambient ratio of 0.9 was used.

6.3.6 $PM_{2.5}$ Emissions

The secondary $PM_{2.5}$ impacts were estimated using guidance from the Appendix R of the TCEQ's AQMG. This TCEQ guidance is based on the USEPA's *Guidance on the Development of Modeled Emission Rates for Precursors (MERPs) as a Tier 1 Demonstration Tool for Ozone and $PM_{2.5}$ under the PSD Permitting Program, April 30, 2019*. MERPs derived using the USEPA's photochemical modeling results for hypothetical sources located in Texas were used to estimate the air quality $PM_{2.5}$ impacts associated with Project-related emissions of NO_X and SO_2. These conservative secondary $PM_{2.5}$ impact estimates were included in the preliminary impact determination, full impact NAAQS and full impact PSD increment consumption analyses.

6.4 Scaling Factors

No additional scalars or factors were used in the modeling analyses.

Section 7
Models Proposed and Modeling Techniques

The American Meteorological Society / Environmental Protection Agency Regulatory Model (AERMOD), Version 24142, was used to perform the dispersion modeling. AERMOD is the latest generation of atmospheric dispersion models suitable for industrial sources and is the model preferred by the USEPA for such applications. To facilitate the running of AERMOD, the Providence/ORIS, LLC's "BEE-Line BEEST for Windows" graphic user interface (Version 12.13) was used.

7.1 Model Options

The following model options were used in the application of the AERMOD modeling:

- Regulatory default option was enabled.
- A medium roughness parameter was used based on the results of the analysis described in Section 8.
- Elevated terrain was used for modeling the area around the Project site.
- All Project sources were modeled at their actual release heights.
- Modeling receptors were placed to a distance that clearly identifies the area of impact. The receptor grid spacing is discussed in Section 10.

7.2 Modeling Approach – Preliminary Impact Determination

A preliminary impact determination was conducted to commence the modeling analysis. The purpose of the preliminary analysis is to determine whether proposed emissions from the Project sources may have a "significant" impact on the existing air quality. The various preliminary modeling analyses are described in the sections below.

7.2.1 Modeled Emission Rates for Precursors (MERPs) Analysis

As described in Section 6.3.6, a Tier 1 approach was used to estimate the secondary $PM_{2.5}$ impacts associated with the Project-related precursor emissions. The secondary $PM_{2.5}$ impacts were estimated using guidance from the Appendix R of the TCEQ's *AQMG*. That guidance is based on the USEPA's *Guidance on the Development of Modeled Emission Rates for Precursors (MERPs) as a Tier 1 Demonstration Tool for Ozone and $PM_{2.5}$ under the PSD Permitting Program, April 30, 2019*. MERPs derived using the USEPA's photochemical modeling results for hypothetical sources located in Texas were used to estimate the air quality secondary $PM_{2.5}$

impacts associated with Project-related emissions of NO_X and SO_2. These secondary $PM_{2.5}$ impacts were included in the preliminary impact determination, full impact NAAQS and full impact PSD increment consumption analyses.

Terry County has the lowest percentage of urban land cover in West Texas of the available counties listed in the MERP guidance (USEPA, 2019a), which is the most comparable to the rural conditions surrounding the Project. The Project includes an increase of 2,830.28 tpy NO_X emissions and 397.70 tpy SO_2 emissions. These emissions are closest to the modeled emissions for the USEPA's 3,000 tpy hypothetical source for NO_X and 500 tpy hypothetical source for SO_2. The majority of these emissions will be emitted from turbine stacks that will be 60.96-meter tall. As such, the exhaust heights of these sources are more similar to the "High" (90-meter) hypothetical source than the "Low" (10-meter) hypothetical source. Therefore, the "High" 3,000 tpy Terry County hypothetical source MERP for NO_X and "High" 500 tpy Terry County hypothetical source MERP for SO_2 maximum impact values ($\mu g/m^3$) were used for this analysis.

7.2.2 Single Source Secondary O3 Analysis

An analysis of the formation of secondary O_3 is necessary when emissions from a new major PSD source will exceed 100 tons or more of VOC and NO_X, which are the precursors to O_3. If a source triggers PSD for O_3 based on either NO_X or VOC emissions exceeding the 100 tons, then the MERP analysis must consider both NO_X and VOC emissions. An ozone impact analysis has been conducted following TCEQ Guidelines and USEPA guidance (USEPA, 2022).

Since ozone is formed from precursor emissions, it cannot be modeled using a traditional point source model such as AERMOD. As part of a recent revision to the USEPA Guideline on Air Quality Modeling (40 CFR Part 51, Appendix W), USEPA promulgated a two-tier approach for addressing single-source impacts on ozone:

- Tier 1 – The first tier involves use of appropriate and technically credible relationships between emissions and ambient impacts developed from existing modeling studies deemed sufficient for evaluating a project's impact. USEPA has developed MERPs as a Tier 1 demonstration tool for ozone.
- Tier 2 – The second tier entails a more involved case-by-case application of chemical transport modeling.

The assessment of ozone formation from the Project's precursor emissions was conducted using USEPA's Tier 1 demonstration tool for estimating single-source secondary impacts, USEPA MERPs. In TCEQ's Modeling Guidance, modeled impacts from hypothetical industrial sources located in Texas are presented for use in a MERP analysis, as obtained from USEPA's MERP guidance. Tables Q-2 and Q-3 of TCEQ's Modeling Guidance lists hypothetical MERP values

from all of the hypothetical industrial sources located in Texas. The MERP values for Source 5 (Terry) with NO_X emissions of 3,000 tpy and VOC emissions of 1,000 tpy and a higher release height were chosen as the hypothetical source, as shown in Table 7-1. Terry County has the lowest percentage of urban land cover in West Texas of the available counties (USEPA, 2019a), which is the most comparable to the conditions surrounding the Project. The Project's potential annual emissions for NO_X and VOC are 2,830 tpy 838 tpy, respectively. The Project's tallest stack is approximately 60.96 meters; therefore, the source release type "H," representing sources modeled at 90 meters, was used (USEPA, 2019a). . These MERP values were used as a conservative representation for the Project.

Table 7-1 MERPS and Modeled Concentrations from Terry County

Pollutant	Emissions	Stack Height	MERP	Maximum Calculated Concentration
	(tpy)	(m)	(tpy)	(ppb)
NO_X	3,000	90	698	4.292
VOC	1,000	90	16,393	0.061

Table 7-2 Cumulative Impact Analysis for Ozone

Pollutant	Project Emissions	Calculated O_3 Project Impact	Total O_3 Project Impact	O_3 Background Design Value	Total O_3 Concentration	8-hour O_3 NAAQS
	(tpy)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)
NO_X	2,830	4.05	4.10	64.0	68.1	70.0
VOC	838	0.05				

As demonstrated above in Table 7-2, the cumulative concentration is less than the 8-hour NAAQS (70 ppb); therefore, the demonstration is complete.

7.2.3 Area of Significant Impact (AOI) Analysis

A preliminary impact determination is conducted to determine if the predicted off-property concentrations associated with the proposed increase in PSD-significant emissions are greater than the USEPA's SILs. No further modeling is required to demonstrate compliance if the maximum predicted concentration is below the SIL. If the maximum predicted concentration is equal to or greater than the SIL, a full impact modeling analysis is required and contributions from off-site sources that may impact the AOI must be accounted for using ambient air monitoring data or by direct inclusion in the modeling. The AOI is defined as all locations with predicted concentrations that are equal to or greater than the established SILs. An ambient

background concentration is added to the full impact modeling results to complete the NAAQS demonstration.

Preliminary impact determination modeling will be conducted for PSD-significant emissions of CO, NO_2, PM_{10}, $PM_{2.5}$, and SO_2 to determine whether a full impact modeling analysis is required for each pollutant and averaging period. The modeling results will be used to determine whether the predicted concentrations are greater than the SIL for each pollutant and averaging period.

The AOI analysis results are provided in Section 12.1.2.

7.2.4 PSD Pre-Application Analysis

For PSD analyses, a preliminary impact determination is conducted to determine if the predicted off-property concentrations associated with the proposed increase in PSD-significant emissions are greater than the USEPA's SMCs. If the maximum predicted concentration is less than the SMC, the demonstration is complete and no consideration of preconstruction ambient air quality monitoring is required. If the maximum concentration is greater than the SMC, representative monitoring background concentrations are used to establish the existing air quality for the area.

Preliminary impact determination modeling will be conducted for PSD-significant emissions of CO, NO_2, PM_{10}, and SO_2 for comparison with the SMCs. A preliminary impact determination will not be conducted for $PM_{2.5}$. Representative monitoring background $PM_{2.5}$ concentrations are used to establish the existing air quality for the area.

The PSD pre-application analysis results are provided in Section 12.1.3.

7.3 Modeling Approach – Full Impact Analysis

Full impact modeling analyses were conducted for comparison with the NAAQS and PSD increment consumption limits for pollutants and averaging periods with preliminary impacts equal to or greater than the SIL. These modeling analyses are described in the sections below.

7.3.1 NAAQS Analysis

NAAQS have been established for ozone, CO, NO_2, SO_2, PM_{10}, and $PM_{2.5}$. Compliance with the NAAQS must be demonstrated for sources with PSD-significant emissions. As discussed in Section 2.1, PSD applies to the proposed emissions of ozone, CO, NO_2, SO_2, PM_{10}, and $PM_{2.5}$.

Based on the results of the Preliminary Impact Determination, a full impact NAAQS analysis was required for 1-hour NO_2, annual NO_2, 24-hour PM_{10}, 24-hour $PM_{2.5}$, and annual $PM_{2.5}$. Only

receptors identified as above the significant impact limit in the preliminary impact determination were included in the full impacts analysis.

7.3.2 PSD Increment Consumption Analysis

PSD increment consumption limits currently exist for NO_2, SO_2, PM_{10}, and $PM_{2.5}$. Compliance with the PSD increment consumption limits must be demonstrated for sources with PSD-significant emissions. As discussed in Section 2.1, PSD applies to the proposed emissions of NO_2, SO_2, PM_{10}, and $PM_{2.5}$.

A preliminary impacts determination will first be conducted using Project-related emissions to determine if a detailed PSD increment consumption analysis is required. This process is described in greater detail in Section 7.2.3. A full impact analysis will then be performed for applicable emissions for comparison to the PSD increment consumption limits. This analysis will include PSD increment-consuming emissions from Project sources and from existing and proposed PSD increment-consuming emission sources affecting the Project's impact area, as listed in the TCEQ APAD inventory system and provided in the TCEQ permit file system (see Section 6.2).

Based on the results of the preliminary impact determination, a full impact PSD increment consumption modeling analyses will be required for annual NO_2, 24-hour PM_{10}, 24-hour $PM_{2.5}$, and annual $PM_{2.5}$. Only receptors identified as above the significant impact limit in the preliminary impact determination will be included in the full impacts analysis.

Section 8
Selection of Dispersion Option

A determination of the albedo, Bowen ratio, and surface roughness length of the modeling domain must be made before an atmospheric dispersion model can be run. The TCEQ has determined the albedo values and Bowen ratios for each county in Texas. In order to maintain consistency in the modeling of all proposed projects in Texas, the TCEQ has created pre-processed meteorological data sets for the three general roughness lengths that cover each county in Texas. The modeling method preferred by the TCEQ is to choose one of these three roughness lengths based on a review of the modeling domain.

TCEQ modeling staff has provided *Air Dispersion Modeling Team Initiative to Update Meteorological Data, November 2022* as a reference in determining the appropriate roughness length for meteorological data set selection. Following this guidance, the USEPA's AERSURFACE tool was utilized to determine the surface roughness length for this Project. A surface roughness of **0.260** meters was obtained for the Project location, as shown below on Table 8-1. This is within the 0.1 to 0.7 range stated in the referenced TCEQ AERMOD Training document for the TCEQ's "medium surface roughness" meteorological dataset. Therefore, the "medium surface roughness" meteorological data set was utilized in the modeling analysis. AERSURFACE files input and output files have been included in the electronic files submitted to the TCEQ.

Table 8-1 Summary of AERSURFACE Inputs and Outputs

AERSURFACE Version Number:	24142
Center UTM Easting (m):	700000
Center UTM Northing (m):	3452000
NLCD Land Cover (year)	2021
NLCD Impervious Surface (year)	2021
NLCD Tree Canopy (year)	2021
Study Radius (km)	1
Airport?	No
Continuous Snow Cover	No
Surface Moisture	Average
Arid Region?	No
Month/Season Assignment	Default
Surface Roughness Length [Z_o] (m)	**0.260**

Section 9
Building Wake Effects

Building downwash effects were included in the modeling based on guidance provided in the USEPA's *User's Guide to the Building Profile Input Program, USEPA-454/R-93-038, October 1993 (Revised April 12, 2004)*. The USEPA currently requires that all building downwash be determined using the USEPA Building Profile Input Program (BPIPPRM) subroutine. Providence/Oris LLC's "BEE-Line BEEST for Windows" was used for calculating downwash parameters for this analysis. This program includes downwash software which uses the latest BPIPPRM subroutine (Version 04274) in its calculations.

Information regarding the Project structures was entered into the BPIP-based software program. The downwash parameter values were calculated for each point source by the software program and inserted into the AERMOD input files in the appropriate locations and formats.

Tables listing the building and tank downwash structures used in the modeling will be included in the final AQA.

Section 10
Receptor Grids

The receptor grids used in the preliminary and full impacts analyses followed the guidelines provided by the TCEQ in its AQMG. The NAD83 datum was used for the receptor UTM coordinates. Providence/ORIS, LLC's "BEE-Line BEEST for Windows" was used to calculate the appropriate domain boundaries. The USEPA AERMAP program (Version 24142) was used to calculate (interpolate) the terrain elevations and local terrain maximums.

The receptor coverage utilized for the preliminary impact analyses consisted of the following:

- 25-meter spaced receptors along the fence line to a distance of 300 meters;
- 100-meter spaced receptors to a distance of one kilometer from the fence line;
- 500-meter spaced receptors to a distance of five kilometers from the fence line; and
- 1,000-meter spaced receptors to a distance up to 50 kilometers to ensure that (1) the maximum predicted concentration is located, (2) all locations with predicted concentrations greater than the SILs were identified and (3) that concentration gradients associated with the Project-related emissions clearly decrease in magnitude outside of the AOIs.

These receptor grids were designed to capture the maximum off-property ground-level concentrations for all pollutants, operating scenarios, and review types.

Section 11
Meteorological Data

The air dispersion modeling for the Project was performed using AERMOD-ready meteorological data for Pecos County made available and approved through the TCEQ.

A summary of relevant information regarding the meteorological data selection is provided in Table 11-1 below.

Table 11-1 Summary of Meteorological Data Selection

Surface Station ID:	23091 – FST
Upper Air Station ID:	22010 - DRT
Profile Base Elevation, (m):	917
AERMET Version Number:	22112
Was TCEQ pre-processed data used?	Yes
TCEQ pre-processed data surface roughness category:	Medium
Data Set Used for 1 Year Analyses:	2020
Data Sets Used for 5 Years Analyses:	2017, 2018, 2019, 2020, 2021
Which analyses relied on 1 year?	State Property Line; State Health Effects
Which analyses relied on 5 years?	NO_2, CO, SO_2, PM_{10}, $PM_{2.5}$

Pre-processed meteorological data consisted of surface data from the Fort Stockton-Pecos County Airport (Surface ID FST; NWS Station Number 23091) and upper air data from Del Rio, Texas (Upper Air ID DRT, MWS Station Number 22010). The TCEQ processed the data using AERMET (Version 22112) and incorporated AERMINUTE data along with a low wind speed threshold of 0.5 m/s. More details regarding the pre-processed meteorological data are available on the TCEQ website.

The most recent five years of representative meteorological data (2017, 2018, 2019, 2020 and 2021) available from the TCEQ were utilized in the NAAQS and PSD increment analyses. For the state property line and state health effects analysis modeling, a single year of representative meteorological data (2020) was used.

The base elevation for the Fort Stockton-Pecos County Airport station is 917 meters. As discussed in Section 8, the TCEQ-developed "medium" surface roughness value was utilized. The meteorological data files have been included in the electronic files submitted to the TCEQ, as described in Attachment C.

Section 12
Modeling Results

The results of the dispersion modeling that was conducted for NO_2, CO, SO_2, PM_{10}, and $PM_{2.5}$ to demonstrate compliance with the NAAQS and PSD increments modeling are included in this section. The dispersion modeling analyses were conducted in accordance with the USEPA's *Guideline on Air Quality Models* (USEPA, 2017), TCEQ's *Air Quality Modeling Guidelines* (TCEQ, 2024), and discussion with TCEQ. Copies of all modeling input and output files will be included in the electronic files submitted to the TCEQ or shortly thereafter.

Table 12-1 provides the SILs, NAAQS, and PSD Class II increments, as well as the modeling rank basis used for the assessment of compliance with the various criteria.

Table 12-1 Summary of SILs, NAAQS, and PSD Class II Increments

Pollutant	Averaging Period	Rank for SIL Assessment	SIL ($\mu g/m^3$)	NAAQS ($\mu g/m^3$)	PSD Class II Increment ($\mu g/m^3$)	Rank for NAAQS/PSD Assessment
NO_2	1-hour	H1H (5-year average)	7.5	188		H8H (5-year average)
	Annual	H1H	1	100	25	H1H
CO	1-hour	H1H	2,000	40,000		H2H
	8-hour	H1H	500	10,000		H2H
SO_2	1-hour	H1H (5-year average)	7.8	196		H4H (5-year average)
	3-hour	H1H	25	1,300	512	H2H
	24-hour	H1H	5	365	91	H2H
	Annual	H1H	1	80	20	H1H
PM_{10}	24-hour	H1H	5	150	30	NAAQS: H6H PSD: H2H
	Annual	H1H	1		17	H1H
$PM_{2.5}$ [a]	24-hour	NAAQS: H1H (5-year average) PSD: H1H	1.2	35	9	NAAQS: H8H (5-year average) PSD: H2H
	Annual	NAAQS: H1H (5-year average) PSD: H1H	0.13	9	4	NAAQS: H1H (5-year average) PSD: H1H

[a] The use of the recommended *de minimis* levels (1.2 μg/m^3 for 24-hr $PM_{2.5}$ and 0.13 μg/m^3 for annual $PM_{2.5}$) is sufficient to conclude that a proposed source will not cause or contribute to a violation of a $PM_{2.5}$ NAAQS or Increment based on the analyses documented in the following EPA guidance: https://www.tceq.texas.gov/permitting/air/modeling/epa-mod-guidance.html

12.1 Preliminary Impact Determination

12.1.1 Modeled Emission Rates for Precursors (MERPs) Analysis Results

As described in Section 7.2.1, a Tier 1 approach was used to estimate the secondary $PM_{2.5}$ impacts associated with the precursor emissions. The estimated secondary $PM_{2.5}$ analysis results are summarized in Table 12-2.

Table 12-2 Secondary Formation of $PM_{2.5}$

Pollutant	Averaging Period	Class II	Class I – Big Bend NP	Class I – Carlsbad Caverns NP Guadalupe Mountains NP
		(μg/m^3)	(μg/m^3)	(μg/m^3)
$PM_{2.5}$	24-hour	0.2476	0.1856	0.1641
	Annual	0.0068	0.0038	0.0030

These estimated impacts were included in the Area of Significant Impact analysis and in the full impact analyses.

12.1.2 Area of Significant Impact (AOI) Analysis Results

As described in Section 7.2.3, this modeling was conducted for Project emissions to determine whether full impact modeling is required and, if so, to determine the AOI. The predicted ground-level concentrations and SILs are summarized in Table 12-3.

Table 12-3 Maximum Predicted Project Impacts

Pollutant	Averaging Period	Rank for SIL Assessment	SIL ($\mu g/m^3$)	Predicted Impact ($\mu g/m^3$)
NO_2	1-hour	H1H (5-year average)	7.5	**54.56**
	Annual	H1H	1	**1.51**
CO	1-hour	H1H	2,000	535.58
	8-hour	H1H	500	309.54
SO_2	1-hour	H1H (5-year average)	7.8	3.33
	3-hour	H1H	25	2.85
	24-hour	H1H	5	1.51
	Annual	H1H	1	0.18
PM_{10}	24-hour	H1H	5	**6.09**
	Annual	H1H	1	0.89
$PM_{2.5}$ [a]	24-hour (NAAQS)	H1H (5-year average)	1.2	**4.28**
	24-hour (PSD)	H1H	1.2	**6.24**
	Annual (NAAQS)	H1H (5-year average)	0.13	**0.80**
	Annual (PSD)	H1H	0.13	**0.85**

Notes:
[a] Results include secondary $PM_{2.5}$ impacts.
Bold = above SIL.

As can be seen in Table 12-3, Project impacts are below the SILs for all criteria pollutants with the exception of NO_2 (1-hour and annual), PM_{10} (24-hour), and $PM_{2.5}$ (24-hour and annual). No further modeling is required for the other pollutants or averaging periods.

12.1.3 PSD Pre-Application Analysis Results

As described in Section 7.2.4, this modeling was conducted to determine whether the Project is exempt from the pre-construction ambient monitoring data gathering requirements. The predicted ground-level concentrations and SMCs are summarized in Table 12-4.

Table 12-4 PSD Pre-Application Analysis Impacts

Pollutant	Averaging Period	Predicted Impact	SMC
		($\mu g/m^3$)	($\mu g/m^3$)
CO	8-hour	309.54	575
NO_2	Annual	1.51	14
PM_{10}	24-hour	6.09	10
$PM_{2.5}$	24-hour	6.24	--[a]
SO_2	24-hour	1.51	13
O_3	8-hour	--[b]	--[b]

Notes:
[a] Per Sierra Club vs. USEPA, the pre-construction requirement cannot be waived for $PM_{2.5}$.
[b] Ozone ambient impact analysis is required, including pre-construction monitoring, when a project proposes a net emission increase of 100 tpy or more of NOx or VOCs.

As can be seen, the maximum predicted impacts for CO, NO_2, PM_{10}, and SO_2 are less than their applicable PSD monitoring SMC listed in Table 12-4. Therefore, pre-construction monitoring would not be required for these pollutants.

As discussed in Section 5.3, the January 22, 2013 Court decision does not allow the exemption of a $PM_{2.5}$ pre-construction monitoring analysis. Pacifico proposes the use of existing ambient air monitoring data from the Odessa Gonzales monitor to meet the $PM_{2.5}$ pre-construction monitoring data requirement.

12.2 Full Impact Analysis

As discussed in Section 12.1.2, the Project exceeds the SILs for NO_2 (1-hour and annual), PM_{10} (24-hour), and $PM_{2.5}$ (24-hour and annual). Therefore, additional modeling impact analyses will be conducted.

12.2.1 Cumulative Modeling Results – Full NAAQS

Table 12-5 summarizes the PSD pollutants and averaging periods for which cumulative modeling that includes emissions from the Project, emissions from offsite sources, and background concentrations will be conducted for comparison to the full NAAQS. These

analyses will be performed using only the receptors at which the respective SIL are exceeded in the AOI analysis (after accounting for contributions of secondary $PM_{2.5}$). The cumulative modeling results will be provided in the final AQA and will demonstrate that none of the NAAQS are exceeded.

Table 12-5 Cumulative Modeling Impacts – Full NAAQS

Pollutant	Averaging Period	Rank for NAAQS Assessment	NAAQS ($\mu g/m^3$)	Predicted Conc. ($\mu g/m^3$)	Background Conc. ($\mu g/m^3$)	Total Conc. ($\mu g/m^3$)
NO_2	1-hour	H8H (5-year average)	188	*TBD*	63.9	*TBD*
	Annual	H1H	100	*TBD*	9.4	*TBD*
PM_{10}	24-hour	H6H	150	*TBD*	68.0	*TBD*
$PM_{2.5}$ [a]	24-hour	H8H (5-year average)	35	*TBD*	18.3	*TBD*
	Annual	H1H (5-year average)	9	*TBD*	7.2	*TBD*

Notes:
[a] Results include secondary $PM_{2.5}$ impacts.

The results of the NAAQS modeling for 1-hour NO_2 will be presented as the maximum five-year average of the 98th percentile of the annual distribution of the maximum daily 1-hour predicted concentrations (or high, eighth high (H8H) predicted concentration) determined for each receptor.

The results of the NAAQS modeling for annual NO_2 will be presented as maximum predicted concentration from all receptors across the five individual years.

The results of the NAAQS modeling for 24-hour PM_{10} will be presented as the maximum high, sixth high (H6H) predicted concentration for the concatenated five-year period.

The results of the NAAQS modeling for 24-hour $PM_{2.5}$ will be presented as the maximum five-year average of the 98th percentile of the annual distribution of the maximum 24-hour predicted concentrations (or H8H predicted concentration) determined for each receptor.

The results of the NAAQS modeling for annual $PM_{2.5}$ will be presented as the highest five-year average of the predicted concentrations from all receptors.

12.2.2 Cumulative Modeling Results – PSD Class II Increments

Table 12-6 summarizes the PSD pollutants and averaging periods for which cumulative modeling that includes emissions from the Project and emissions from offsite sources will be conducted for comparison to the PSD Class II increments. These analyses will be performed using only the receptors at which the respective SIL are exceeded in the AOI analysis (after accounting for contributions of secondary $PM_{2.5}$). The cumulative modeling results will be provided in the final AQA and will demonstrate that none of the PSD Class II increments are exceeded.

Table 12-6 Cumulative Modeling Impacts – PSD Class II Increments

Pollutant	Averaging Period	Rank for Increment Assessment	PSD Class II Increment ($\mu g/m^3$)	Predicted Conc. ($\mu g/m^3$)
NO_2	Annual	H1H	25	*TBD*
PM_{10}	24-hour	H2H	30	*TBD*
$PM_{2.5}$ [a]	24-hour	H2H	9	*TBD*
	Annual	H1H	4	*TBD*

Notes:
[a] Results include secondary $PM_{2.5}$ impacts.

The results of the PSD Class II increment modeling for annual NO_2 will be presented as maximum predicted concentration at any receptor across the five individual years.

The results of the PSD Class II increment modeling for 24-hour PM_{10} and 24-hour $PM_{2.5}$ will be presented as the maximum high, second high (H2H) predicted concentration across the five individual years.

The results of the PSD Class II increment modeling for annual $PM_{2.5}$ will be presented as the maximum predicted concentration at any receptor across the five individual years.

12.3 Additional Impact Analysis

12.3.1 Growth Analysis

The TCEQ's AQMG states that "an in-depth growth analysis is only required if the Project would result in a significant shift in population and associated activity into the area (i.e., a population increase on the order of thousands of people)." Employment within this area (i.e.,

within the modeling domain) will not significantly increase as a result of the Project. Also, there will not be any significant impacts due to any changes in the population size or density, or changes in the type of development in the area. Therefore, possible adverse impacts from this Project are not expected.

12.3.2 Visibility Impairment Analysis

As discussed in Section 3, there are no Class I areas within 100 kilometers of the Project. A Class II visibility analysis is not required since the Project will comply with the visibility and opacity requirements in 30 TAC Chapter 111, as well as with the secondary NAAQS, which are set at a level sufficient to protect against adverse effects on visibility.

12.3.3 Soils and Vegetation Analysis

The emissions from the Project will not significantly affect any soils or vegetation within the area (i.e., the modeling domain). There are no predicted exceedances of the Primary or Secondary NAAQS due to the proposed emissions. Primary NAAQS set limits to protect public health, with an adequate margin of safety. "Public health" is defined to include the health of "sensitive" populations such as asthmatics, children and the elderly. Secondary NAAQS set limits to protect public welfare from any known or anticipated adverse effects associated with the presence of such a pollutant. "Public welfare" includes protection against decreased visibility, damage to animals, crops, vegetation and buildings. Therefore, possible adverse impacts from this Project are not expected.

Section 13
Class I Area Impact Analysis

13.1 Class I Area Increment Analysis

Predicted concentrations of annual NO_2, 3-hour SO_2, 24-hour SO_2, annual SO_2, 24-hour PM_{10}, annual PM_{10}, 24-hour $PM_{2.5}$, and annual $PM_{2.5}$ were modeled using the AERMOD model to determine the significance of ambient impacts at or about 50 kilometers (km) from the Project site in the direction of the nearest Class I areas, which are beyond 100-km from the Project. The $PM_{2.5}$ model predicted impacts included results from secondary formation of $PM_{2.5}$ using distant dependent Modeled Emission Rates for Precursors (MERPs) at a distance of 160 and 180 km, which is the approximate distance to Big Bend National Park (NP) and the Carlsbad Caverns and Guadalupe Mountains NP Class I areas, respectively.

Class I screening receptors were developed by placing a ring of receptors at or about 50 km from the Project site. Actual Class I receptors and heights for the Big Bend NP, Carlsbad Caverns NP, and Guadalupe Mountains NP areas were obtained from the National Park Service. Screening receptors within an arc subtended by the minimum and maximum angular directions to the Class I areas were assigned all of the heights within that Class I area in order to develop a set of representative screening receptors at or about 50 km from the Project. The model predicted concentration at receptors located 50 km from the Project showed that all concentrations of annual NO_2; 3-hour, 24-hour, and annual SO_2; 24-hr and annual PM_{10}, and annual $PM_{2.5}$ were below the Class I Increment Significant Impact Limits (SIL). As such, for these pollutants and averaging periods, the sources from this Project will not make a significant impact or adversely affect the Class I areas and the screening demonstration is complete for those pollutants and averaging periods.

For 24-hour $PM_{2.5}$, the screening results showed model predicted concentrations at 50 km were marginally over the $PM_{2.5}$ 24-hour Class I increment SIL. As such, further screening was performed to evaluate model predicted concentrations of 24-hr $PM_{2.5}$ at the Class I area distances, which are approximately 160 to 180 km from the Project. The same approach using screening receptors within an arc subtended by the minimum and maximum angular directions to the Class I areas was used, but receptors were placed at 160 km from the Project. The model-predicted concentrations at the NP distances showed that all concentrations of 24-hour $PM_{2.5}$ were below the Class I increment SIL. As such, the sources from this Project will not have a significant impact or adversely affect the Class I area and the screening demonstration is complete.

13.2 Visibility and Air Quality-Related Values (AQRV)

The Project is located beyond 100 km from the nearest Class I area and therefore would not require a Class I visibility and Air Quality-Related Values (AQRV) analysis. Further, with attenuation below increment significance levels at Class I area distances we would not expect adverse impacts on any Class I area including visibility impairment or adverse effects on AQRVs.

Section 14
State-Only Air Quality Impact Analyses

14.1 TCEQ State Property Line Standard Analysis

TCEQ has implemented a state-specific procedure for evaluation of ground-level concentrations of SO_2, H_2S, and H_2SO_4. Attachment D provides the TCEQ EMEW demonstrating compliance with all applicable TCEQ State Property Line standards.

14.2 Health Effects Analysis

TCEQ has also implemented a state-specific procedure to evaluate off-property ground-level concentrations of pollutants which do not have a federal or state-level standard. These pollutants are compared against the state's ESLs, which are updated regularly to incorporate new toxicology data. The Project followed the tiered MERA process as outlined in the TCEQ guidance (TCEQ, 2018). The EMEW included as Attachment D provides a summary of the results of the MERA. As can be seen in the EMEW, the Project's impacts are less than the ESLs and are, therefore, in compliance with health effects standards.

Attachment A
Project Source Parameters and Emission Rates Modeled

Point Source Parameters and Emission Rates Modeled:

EPN	Model ID	Description	Easting	Northing	Base Elevation	Stack Height	Exit Temp	Exit Velocity	Exit Diam	NOx	NOx	CO	CO	SO2	SO2	SO2
			m	m	m	ft	F	fps	ft	1-HR	ANN	1-HR	8-HR	30-MIN	1-HR	3-HR
CT-1A	CT_01A	Siemens SGT-800 Turbine 1	700570.72	3451977.09	772.56	100.00	850	74.67	12.00	4.8593	21.9935	114.5486	114.5486	0.7394	0.7394	0.7394
CT-2A	CT_02A	Siemens SGT-800 Turbine 2	700566.11	3451948.49	772.67	100.00	850	74.67	12.00	4.8593	21.9935	114.5486	114.5486	0.7394	0.7394	0.7394
CT-3A	CT_03A	Siemens SGT-800 Turbine 3	700561.50	3451919.90	772.78	100.00	850	74.67	12.00	4.8593	21.9935	114.5486	114.5486	0.7394	0.7394	0.7394
CT-4A	CT_04A	Siemens SGT-800 Turbine 4	700556.88	3451891.31	772.88	100.00	850	74.67	12.00	4.8593	21.9935	114.5486	114.5486	0.7394	0.7394	0.7394
CT-5A	CT_05A	Siemens SGT-800 Turbine 5	700552.27	3451862.72	772.98	100.00	850	74.67	12.00	4.8593	21.9935	114.5486	114.5486	0.7394	0.7394	0.7394
CT-6A	CT_06A	Siemens SGT-800 Turbine 6	700547.66	3451834.12	773.06	100.00	850	74.67	12.00	4.8593	21.9935	114.5486	114.5486	0.7394	0.7394	0.7394
CT-7A	CT_07A	Siemens SGT-800 Turbine 7	700543.04	3451805.53	773.14	100.00	850	74.67	12.00	4.8593	21.9935	114.5486	114.5486	0.7394	0.7394	0.7394
CT-8A	CT_08A	Siemens SGT-800 Turbine 8	700538.43	3451776.94	773.24	100.00	850	74.67	12.00	4.8593	21.9935	114.5486	114.5486	0.7394	0.7394	0.7394
CT-9A	CT_09A	Siemens SGT-800 Turbine 9	700533.82	3451748.35	773.33	100.00	850	74.67	12.00	4.8593	21.9935	114.5486	114.5486	0.7394	0.7394	0.7394
CT-10A	CT_10A	Siemens SGT-800 Turbine 10	700529.21	3451719.76	773.43	100.00	850	74.67	12.00	4.8593	21.9935	114.5486	114.5486	0.7394	0.7394	0.7394
CT-11A	CT_11A	Siemens SGT-800 Turbine 11	700524.59	3451691.16	773.51	100.00	850	74.67	12.00	4.8593	21.9935	114.5486	114.5486	0.7394	0.7394	0.7394
CT-12A	CT_12A	Siemens SGT-800 Turbine 12	700519.98	3451662.57	773.60	100.00	850	74.67	12.00	17.4156	21.9935	114.5486	114.5486	0.7394	0.7394	0.7394
CT-13A	CT_13A	Siemens SGT-800 Turbine 13	700507.60	3451585.82	773.86	100.00	850	74.67	12.00	17.4156	21.9935	114.5486	114.5486	0.7394	0.7394	0.7394
CT-14A	CT_14A	Siemens SGT-800 Turbine 14	700502.99	3451557.23	773.96	100.00	850	74.67	12.00	17.4156	21.9935	114.5486	114.5486	0.7394	0.7394	0.7394
CT-15A	CT_15A	Siemens SGT-800 Turbine 15	700498.37	3451528.64	774.06	100.00	850	74.67	12.00	17.4156	21.9935	114.5486	114.5486	0.7394	0.7394	0.7394
CT-16A	CT_16A	Siemens SGT-800 Turbine 16	700493.76	3451500.04	774.17	100.00	850	74.67	12.00	17.4156	21.9935	114.5486	114.5486	0.7394	0.7394	0.7394
CT-17A	CT_17A	Siemens SGT-800 Turbine 17	700489.14	3451471.45	774.26	100.00	850	74.67	12.00	17.4156	21.9935	114.5486	114.5486	0.7394	0.7394	0.7394
CT-18A	CT_18A	Siemens SGT-800 Turbine 18	700484.53	3451442.86	774.36	100.00	850	74.67	12.00	17.4156	21.9935	114.5486	114.5486	0.7394	0.7394	0.7394
CT-19A	CT_19A	Siemens SGT-800 Turbine 19	700479.92	3451414.27	774.44	100.00	850	74.67	12.00	17.4156	21.9935	114.5486	114.5486	0.7394	0.7394	0.7394
CT-20A	CT_20A	Siemens SGT-800 Turbine 20	700475.31	3451385.68	774.53	100.00	850	74.67	12.00	17.4156	21.9935	114.5486	114.5486	0.7394	0.7394	0.7394
CT-21A	CT_21A	Siemens SGT-800 Turbine 21	700470.69	3451357.08	774.63	100.00	850	74.67	12.00	17.4156	21.9935	114.5486	114.5486	0.7394	0.7394	0.7394
CT-1B	CT_01B	Large-Frame Combustion Turbine 1	700364.71	3451157.96	775.58	200.00	850	70.40	30.00	193.1796	163.2158	624.8283	624.8283	5.3544	5.3544	5.3544
CT-2B	CT_02B	Large-Frame Combustion Turbine 2	700351.35	3451075.19	775.83	200.00	850	70.40	30.00	193.1796	163.2158	624.8283	624.8283	5.3544	5.3544	5.3544
CT-3B	CT_03B	Large-Frame Combustion Turbine 3	700325.86	3450917.18	776.24	200.00	850	70.40	30.00	35.1862	163.2158	624.8283	624.8283	5.3544	5.3544	5.3544
CT-4B	CT_04B	Large-Frame Combustion Turbine 4	700312.50	3450834.42	776.49	200.00	850	70.40	30.00	35.1862	163.2158	624.8283	624.8283	5.3544	5.3544	5.3544
CT-5B	CT_05B	Large-Frame Combustion Turbine 5	700287.01	3450676.40	777.14	200.00	850	70.40	30.00	35.1862	163.2158	624.8283	624.8283	5.3544	5.3544	5.3544
CT-6B	CT_06B	Large-Frame Combustion Turbine 6	700273.66	3450593.63	777.52	200.00	850	70.40	30.00	35.1862	163.2158	624.8283	624.8283	5.3544	5.3544	5.3544
CT-7B	CT_07B	Large-Frame Combustion Turbine 7	700248.16	3450435.62	778.70	200.00	850	70.40	30.00	35.1862	163.2158	624.8283	624.8283	5.3544	5.3544	5.3544
CT-8B	CT_08B	Large-Frame Combustion Turbine 8	700234.81	3450352.86	779.03	200.00	850	70.40	30.00	35.1862	163.2158	624.8283	624.8283	5.3544	5.3544	5.3544
CT-9B	CT_09B	Large-Frame Combustion Turbine 9	700209.31	3450194.85	780.01	200.00	850	70.40	30.00	35.1862	163.2158	624.8283	624.8283	5.3544	5.3544	5.3544
CT-10B	CT_10B	Large-Frame Combustion Turbine 10	700195.96	3450112.08	780.43	200.00	850	70.40	30.00	35.1862	163.2158	624.8283	624.8283	5.3544	5.3544	5.3544
CT-11B	CT_11B	Large-Frame Combustion Turbine 11	700170.46	3449954.07	781.11	200.00	850	70.40	30.00	35.1862	163.2158	624.8283	624.8283	5.3544	5.3544	5.3544
CT-12B	CT_12B	Large-Frame Combustion Turbine 12	700157.11	3449871.30	781.33	200.00	850	70.40	30.00	35.1862	163.2158	624.8283	624.8283	5.3544	5.3544	5.3544
CT-13B	CT_13B	Large-Frame Combustion Turbine 13	700131.61	3449713.29	781.77	200.00	850	70.40	30.00	35.1862	163.2158	624.8283	624.8283	5.3544	5.3544	5.3544
CT-14B	CT_14B	Large-Frame Combustion Turbine 14	700118.26	3449630.53	782.00	200.00	850	70.40	30.00	35.1862	163.2158	624.8283	624.8283	5.3544	5.3544	5.3544
DPHEAT1	DPHT_01	Dewpoint Heater 1	700742.70	3451059.50	775.13	25.00	763	20.79	2.17	0.0968	0.4240	0.3250	0.3250	0.0123	0.0123	0.0123
DPHEAT2	DPHT_02	Dewpoint Heater 2	700741.58	3451052.58	775.16	25.00	763	20.79	2.17	0.0968	0.4240	0.3250	0.3250	0.0123	0.0123	0.0123
DPHEAT3	DPHT_03	Dewpoint Heater 3	700740.47	3451045.65	775.18	25.00	763	20.79	2.17	0.0968	0.4240	0.3250	0.3250	0.0123	0.0123	0.0123
DPHEAT4	DPHT_04	Dewpoint Heater 4	700739.35	3451038.73	775.20	25.00	763	20.79	2.17	0.0968	0.4240	0.3250	0.3250	0.0123	0.0123	0.0123
DPHEAT5	DPHT_05	Dewpoint Heater 5	700738.23	3451031.81	775.22	25.00	763	20.79	2.17	0.0968	0.4240	0.3250	0.3250	0.0123	0.0123	0.0123
DPHEAT6	DPHT_06	Dewpoint Heater 6	700726.68	3450960.18	775.40	25.00	763	20.79	2.17	0.1221	0.5348	0.4100	0.4100	0.0156	0.0156	0.0156
DPHEAT7	DPHT_07	Dewpoint Heater 7	700725.56	3450953.25	775.42	25.00	763	20.79	2.17	0.1221	0.5348	0.4100	0.4100	0.0156	0.0156	0.0156
DPHEAT8	DPHT_08	Dewpoint Heater 8	700724.44	3450946.33	775.44	25.00	763	20.79	2.17	0.1221	0.5348	0.4100	0.4100	0.0156	0.0156	0.0156
DPHEAT9	DPHT_09	Dewpoint Heater 9	700723.32	3450939.41	775.46	25.00	763	20.79	2.17	0.1221	0.5348	0.4100	0.4100	0.0156	0.0156	0.0156
DPHEAT10	DPHT_10	Dewpoint Heater 10	700722.21	3450932.49	775.48	25.00	763	20.79	2.17	0.1221	0.5348	0.4100	0.4100	0.0156	0.0156	0.0156
DPHEAT11	DPHT_11	Dewpoint Heater 11	700710.65	3450860.85	775.73	25.00	763	20.79	2.17	0.1221	0.5348	0.4100	0.4100	0.0156	0.0156	0.0156
DPHEAT12	DPHT_12	Dewpoint Heater 12	700709.53	3450853.93	775.75	25.00	763	20.79	2.17	0.1221	0.5348	0.4100	0.4100	0.0156	0.0156	0.0156
DPHEAT13	DPHT_13	Dewpoint Heater 13	700708.42	3450847.01	775.78	25.00	763	20.79	2.17	0.1221	0.5348	0.4100	0.4100	0.0156	0.0156	0.0156
DPHEAT14	DPHT_14	Dewpoint Heater 14	700694.62	3450761.53	776.09	25.00	763	20.79	2.17	0.1221	0.5348	0.4100	0.4100	0.0156	0.0156	0.0156
DPHEAT15	DPHT_15	Dewpoint Heater 15	700693.51	3450754.61	776.12	25.00	763	20.79	2.17	0.1221	0.5348	0.4100	0.4100	0.0156	0.0156	0.0156
DPHEAT16	DPHT_16	Dewpoint Heater 16	700692.39	3450747.69	776.15	25.00	763	20.79	2.17	0.1221	0.5348	0.4100	0.4100	0.0156	0.0156	0.0156
DPHEAT17	DPHT_17	Dewpoint Heater 17	700678.60	3450662.21	776.45	25.00	763	20.79	2.17	0.1221	0.5348	0.4100	0.4100	0.0156	0.0156	0.0156
DPHEAT18	DPHT_18	Dewpoint Heater 18	700677.48	3450655.29	776.47	25.00	763	20.79	2.17	0.1221	0.5348	0.4100	0.4100	0.0156	0.0156	0.0156
DPHEAT19	DPHT_19	Dewpoint Heater 19	700676.37	3450648.37	776.49	25.00	763	20.79	2.17	0.1221	0.5348	0.4100	0.4100	0.0156	0.0156	0.0156

Point Source Parameters and Emission Rates Modeled:

EPN	Model ID	Description	Easting	Northing	Base Elevation	Stack Height	Exit Temp	Exit Velocity	Exit Diam	NOx	NOx	CO	CO	SO2	SO2	SO2
			m	m	m	ft	F	fps	ft	1-HR	ANN	1-HR	8-HR	30-MIN	1-HR	3-HR
FPUMP1	FPUMP1	Firewater Pump 1	700582.24	3451587.21	773.67	10.00	961	118.84	0.50	0.0206	0.0904	0.2690	0.0336	0.0033	0.0033	0.0033
FPUMP2	FPUMP2	Firewater Pump 2	700431.20	3451281.67	774.99	10.00	961	118.84	0.50	0.0206	0.0904	0.2690	0.0336	0.0033	0.0033	0.0033
EGEN1	EGEN01	Emergency Engine 1	700596.01	3451885.00	772.77	26.00	825	102.30	2.17	0.5275	2.3105	5.1442	0.6430	0.0532	0.0532	0.0532
EGEN2	EGEN02	Emergency Engine 2	700606.55	3451883.30	772.74	26.00	825	102.30	2.17	0.5275	2.3105	5.1442	0.6430	0.0532	0.0532	0.0532
EGEN3	EGEN03	Emergency Engine 3	700617.08	3451881.60	772.71	26.00	825	102.30	2.17	0.5275	2.3105	5.1442	0.6430	0.0532	0.0532	0.0532
EGEN4	EGEN04	Emergency Engine 4	700627.61	3451879.90	772.69	26.00	825	102.30	2.17	0.5275	2.3105	5.1442	0.6430	0.0532	0.0532	0.0532
EGEN5	EGEN05	Emergency Engine 5	700638.15	3451878.20	772.66	26.00	825	102.30	2.17	0.5275	2.3105	5.1442	0.6430	0.0532	0.0532	0.0532
EGEN6	EGEN06	Emergency Engine 6	700648.68	3451876.50	772.64	26.00	825	102.30	2.17	0.5275	2.3105	5.1442	0.6430	0.0532	0.0532	0.0532
EGEN7	EGEN07	Emergency Engine 7	700659.22	3451874.80	772.62	26.00	825	102.30	2.17	0.5275	2.3105	5.1442	0.6430	0.0532	0.0532	0.0532
EGEN8	EGEN08	Emergency Engine 8	700669.75	3451873.10	772.62	26.00	825	102.30	2.17	0.5275	2.3105	5.1442	0.6430	0.0532	0.0532	0.0532
EGEN9	EGEN09	Emergency Engine 9	700294.63	3451143.99	775.83	26.00	825	102.30	2.17	0.5275	2.3105	5.1442	0.6430	0.0532	0.0532	0.0532
EGEN10	EGEN10	Emergency Engine 10	700281.28	3451061.22	776.07	26.00	825	102.30	2.17	0.5275	2.3105	5.1442	0.6430	0.0532	0.0532	0.0532
EGEN11	EGEN11	Emergency Engine 11	700255.78	3450903.21	776.48	26.00	825	102.30	2.17	0.5275	2.3105	5.1442	0.6430	0.0532	0.0532	0.0532
EGEN12	EGEN12	Emergency Engine 12	700242.43	3450820.44	776.67	26.00	825	102.30	2.17	0.5275	2.3105	5.1442	0.6430	0.0532	0.0532	0.0532
EGEN13	EGEN13	Emergency Engine 13	700164.73	3450338.89	779.89	26.00	825	102.30	2.17	0.5275	2.3105	5.1442	0.6430	0.0532	0.0532	0.0532
EGEN14	EGEN14	Emergency Engine 14	700125.88	3450098.11	781.09	26.00	825	102.30	2.17	0.5275	2.3105	5.1442	0.6430	0.0532	0.0532	0.0532
EGEN15	EGEN15	Emergency Engine 15	700048.18	3449616.56	782.24	26.00	825	102.30	2.17	0.5275	2.3105	5.1442	0.6430	0.0532	0.0532	0.0532
ENGINE-1	ENGINE1	Supplemental Engine Generator 1	700499.14	3451291.75	774.73	60.00	704	92.55	5.25	38.9482	19.4741	111.2807	111.2807	0.0944	0.0944	0.0944
ENGINE-2	ENGINE2	Supplemental Engine Generator 2	700498.00	3451284.65	774.76	60.00	704	92.55	5.25	38.9482	19.4741	111.2807	111.2807	0.0944	0.0944	0.0944
CO-1	CO_01	Wet Surface Air Cooler (WSAC) 1	700588.66	3451806.43	772.99	21.75	-459.67	0.0033	0.0033							
CO-2	CO_02	Wet Surface Air Cooler (WSAC) 2	700613.02	3451802.50	772.93	21.75	-459.67	0.0033	0.0033							
CO-3	CO_03	Wet Surface Air Cooler (WSAC) 3	700637.37	3451798.57	772.85	21.75	-459.67	0.0033	0.0033							
CO-4	CO_04	Wet Surface Air Cooler (WSAC) 4	700661.72	3451794.64	772.84	21.75	-459.67	0.0033	0.0033							
CO-5	CO_05	Wet Surface Air Cooler (WSAC) 5	700686.08	3451790.71	772.90	21.75	-459.67	0.0033	0.0033							
CO-6	CO_06	Wet Surface Air Cooler (WSAC) 6	700448.75	3450975.25	775.79	27.75	-459.67	0.0033	0.0033							
CO-7	CO_07	Wet Surface Air Cooler (WSAC) 7	700466.81	3450972.34	775.75	27.75	-459.67	0.0033	0.0033							
CO-8	CO_08	Wet Surface Air Cooler (WSAC) 8	700409.90	3450734.48	776.56	27.75	-459.67	0.0033	0.0033							
CO-9	CO_09	Wet Surface Air Cooler (WSAC) 9	700427.96	3450731.56	776.53	27.75	-459.67	0.0033	0.0033							
CO-10	CO_10	Wet Surface Air Cooler (WSAC) 10	700371.05	3450493.70	777.70	27.75	-459.67	0.0033	0.0033							
CO-11	CO_11	Wet Surface Air Cooler (WSAC) 11	700389.11	3450490.79	777.65	27.75	-459.67	0.0033	0.0033							
CO-12	CO_12	Wet Surface Air Cooler (WSAC) 12	700332.20	3450252.92	778.96	27.75	-459.67	0.0033	0.0033							
CO-13	CO_13	Wet Surface Air Cooler (WSAC) 13	700350.26	3450250.00	778.84	27.75	-459.67	0.0033	0.0033							
CO-14	CO_14	Wet Surface Air Cooler (WSAC) 14	700293.35	3450012.14	780.18	27.75	-459.67	0.0033	0.0033							
CO-15	CO_15	Wet Surface Air Cooler (WSAC) 15	700311.41	3450009.23	780.10	27.75	-459.67	0.0033	0.0033							
CO-16	CO_16	Wet Surface Air Cooler (WSAC) 16	700254.50	3449771.36	781.13	27.75	-459.67	0.0033	0.0033							
CO-17	CO_17	Wet Surface Air Cooler (WSAC) 17	700272.56	3449768.45	781.05	27.75	-459.67	0.0033	0.0033							
CO-18	CO_18	Wet Surface Air Cooler (WSAC) 18	700215.65	3449530.59	781.87	27.75	-459.67	0.0033	0.0033							
CO-19	CO_19	Wet Surface Air Cooler (WSAC) 19	700233.71	3449527.67	781.81	27.75	-459.67	0.0033	0.0033							
OILVENT1	LOV_01A	Lube Oil Vent 1	700552.47	3451977.51	772.62	25.00	-459.67	0.0033	0.0033							
OILVENT2	LOV_02A	Lube Oil Vent 2	700546.26	3451949.63	772.73	25.00	-459.67	0.0033	0.0033							
OILVENT3	LOV_03A	Lube Oil Vent 3	700540.24	3451920.96	772.85	25.00	-459.67	0.0033	0.0033							
OILVENT4	LOV_04A	Lube Oil Vent 4	700535.63	3451893.09	772.95	25.00	-459.67	0.0033	0.0033							
OILVENT5	LOV_05A	Lube Oil Vent 5	700531.62	3451864.61	773.05	25.00	-459.67	0.0033	0.0033							
OILVENT6	LOV_06A	Lube Oil Vent 6	700527.32	3451835.31	773.13	25.00	-459.67	0.0033	0.0033							
OILVENT7	LOV_07A	Lube Oil Vent 7	700523.56	3451807.33	773.21	25.00	-459.67	0.0033	0.0033							
OILVENT8	LOV_08A	Lube Oil Vent 8	700518.97	3451778.52	773.30	25.00	-459.67	0.0033	0.0033							
OILVENT9	LOV_09A	Lube Oil Vent 9	700514.93	3451750.54	773.38	25.00	-459.67	0.0033	0.0033							
OILVENT10	LOV_10A	Lube Oil Vent 10	700510.30	3451721.20	773.48	25.00	-459.67	0.0033	0.0033							
OILVENT11	LOV_11A	Lube Oil Vent 11	700505.87	3451693.42	773.56	25.00	-459.67	0.0033	0.0033							
OILVENT12	LOV_12A	Lube Oil Vent 12	700500.84	3451664.74	773.64	25.00	-459.67	0.0033	0.0033							
OILVENT13	LOV_13A	Lube Oil Vent 13	700487.50	3451587.58	773.90	25.00	-459.67	0.0033	0.0033							
OILVENT14	LOV_14A	Lube Oil Vent 14	700484.20	3451558.63	774.00	25.00	-459.67	0.0033	0.0033							
OILVENT15	LOV_15A	Lube Oil Vent 15	700478.85	3451530.15	774.11	25.00	-459.67	0.0033	0.0033							
OILVENT16	LOV_16A	Lube Oil Vent 16	700474.13	3451501.68	774.21	25.00	-459.67	0.0033	0.0033							
OILVENT17	LOV_17A	Lube Oil Vent 17	700468.94	3451473.36	774.31	25.00	-459.67	0.0033	0.0033							
OILVENT18	LOV_18A	Lube Oil Vent 18	700465.16	3451444.26	774.40	25.00	-459.67	0.0033	0.0033							

Point Source Parameters and Emission Rates Modeled:

EPN	Model ID	Description	Easting	Northing	Base Elevation	Stack Height	Exit Temp	Exit Velocity	Exit Diam	NOx	NOx	CO	CO	SO2	SO2	SO2
			m	m	m	ft	F	fps	ft	1-HR	ANN	1-HR	8-HR	30-MIN	1-HR	3-HR
OILVENT19	LOV_19A	Lube Oil Vent 19	700459.66	3451416.73	774.49	25.00	-459.67	0.0033	0.0033							
OILVENT20	LOV_20A	Lube Oil Vent 20	700454.31	3451387.94	774.59	25.00	-459.67	0.0033	0.0033							
OILVENT21	LOV_21A	Lube Oil Vent 21	700448.65	3451358.84	774.69	25.00	-459.67	0.0033	0.0033							
OILVENT22	LOV_01B	Lube Oil Vent 22	700338.85	3451104.42	775.80	25.00	-459.67	0.0033	0.0033							
OILVENT23	LOV_02B	Lube Oil Vent 23	700322.66	3451019.98	776.03	25.00	-459.67	0.0033	0.0033							
OILVENT24	LOV_03B	Lube Oil Vent 24	700299.05	3450862.35	776.45	25.00	-459.67	0.0033	0.0033							
OILVENT25	LOV_04B	Lube Oil Vent 25	700283.54	3450776.64	776.71	25.00	-459.67	0.0033	0.0033							
OILVENT26	LOV_05B	Lube Oil Vent 26	700259.36	3450619.48	777.49	25.00	-459.67	0.0033	0.0033							
OILVENT27	LOV_06B	Lube Oil Vent 27	700245.00	3450539.55	778.06	25.00	-459.67	0.0033	0.0033							
OILVENT28	LOV_07B	Lube Oil Vent 28	700217.56	3450381.00	779.03	25.00	-459.67	0.0033	0.0033							
OILVENT29	LOV_08B	Lube Oil Vent 29	700199.87	3450295.38	779.80	25.00	-459.67	0.0033	0.0033							
OILVENT30	LOV_09B	Lube Oil Vent 30	700177.64	3450139.03	780.49	25.00	-459.67	0.0033	0.0033							
OILVENT31	LOV_10B	Lube Oil Vent 31	700160.38	3450055.97	780.93	25.00	-459.67	0.0033	0.0033							
OILVENT32	LOV_11B	Lube Oil Vent 32	700136.41	3449897.60	781.36	25.00	-459.67	0.0033	0.0033							
OILVENT33	LOV_12B	Lube Oil Vent 33	700120.79	3449814.02	781.55	25.00	-459.67	0.0033	0.0033							
OILVENT34	LOV_13B	Lube Oil Vent 34	700093.49	3449656.06	782.05	25.00	-459.67	0.0033	0.0033							
OILVENT35	LOV_14B	Lube Oil Vent 35	700077.96	3449574.95	782.27	25.00	-459.67	0.0033	0.0033							
TNK-DSL1	TNK_DSL1	Diesel Tank 1	700599.00	3451855.00	772.84	30.00	-459.67	0.0033	0.0033							
TNK-DSL2	TNK_DSL2	Diesel Tank 2	700599.00	3451848.00	772.86	30.00	-459.67	0.0033	0.0033							
TNK-DSL3	TNK_DSL3	Diesel Tank 3	700599.00	3451843.00	772.88	30.00	-459.67	0.0033	0.0033							
TNK-DSL4	TNK_DSL4	Diesel Tank 4	700628.00	3451258.00	774.54	30.00	-459.67	0.0033	0.0033							
TNK-DSL5	TNK_DSL5	Diesel Tank 5	700628.00	3451254.00	774.55	16.42	-459.67	0.0033	0.0033							
TNK-DSL6	TNK_DSL6	Diesel Tank 6	700627.00	3451247.00	774.58	16.42	-459.67	0.0033	0.0033							
TNK-DSL7	TNK_DSL7	Diesel Tank 7	700626.00	3451241.00	774.60	16.42	-459.67	0.0033	0.0033							

Area Source Parameters and Emission Rates Modeled:

EPN	Model ID	Description	Easting	Northing	Base Elevation	Release Height	Length	Width	-	NOx	NOx	CO	CO	SO2	SO2	SO2
			m	m	m	ft	ft	ft	-	1-HR	ANN	1-HR	8-HR	30-MIN	1-HR	3-HR
NGFUG	NGFUG	Natural Gas Piping Fugitives	700742.39	3450832.29	775.80	3.28	3.2808399	3.2808								
NH3FUG	NH3FUG	SCR Delivery System Fugitives	700382.09	3450644.59	776.97	3.28	3.2808399	3.2808								
MSSFUG	MSSFUG	ILE Turbine Maintenance Activities	700382.09	3450644.59	776.97	3.28	3.2808399	3.2808		4.18E-03	1.46E-03	2.54E-03	2.54E-03			

Point Source Parameters and Emission Rate

EPN	Model ID	Description	SO2	SO2	PM10	PM10	PM2.5	PM2.5	H2S	H2SO4	NH3	NH3	LUBEOIL	LUBEOIL	DIESEL	DIESEL
			24-HR	ANN	24-HR	ANN	24-HR	ANN	30-MIN	1-HR/24-HR	1-HR	ANN	1-HR	ANN	1-HR	ANN
CT-1A	CT_01A	Siemens SGT-800 Turbine 1	0.7394	3.2388	3.2524	14.2457	3.2524	14.2457		0.1132	7.1817	15.7280				
CT-2A	CT_02A	Siemens SGT-800 Turbine 2	0.7394	3.2388	3.2524	14.2457	3.2524	14.2457		0.1132	7.1817	15.7280				
CT-3A	CT_03A	Siemens SGT-800 Turbine 3	0.7394	3.2388	3.2524	14.2457	3.2524	14.2457		0.1132	7.1817	15.7280				
CT-4A	CT_04A	Siemens SGT-800 Turbine 4	0.7394	3.2388	3.2524	14.2457	3.2524	14.2457		0.1132	7.1817	15.7280				
CT-5A	CT_05A	Siemens SGT-800 Turbine 5	0.7394	3.2388	3.2524	14.2457	3.2524	14.2457		0.1132	7.1817	15.7280				
CT-6A	CT_06A	Siemens SGT-800 Turbine 6	0.7394	3.2388	3.2524	14.2457	3.2524	14.2457		0.1132	7.1817	15.7280				
CT-7A	CT_07A	Siemens SGT-800 Turbine 7	0.7394	3.2388	3.2524	14.2457	3.2524	14.2457		0.1132	7.1817	15.7280				
CT-8A	CT_08A	Siemens SGT-800 Turbine 8	0.7394	3.2388	3.2524	14.2457	3.2524	14.2457		0.1132	7.1817	15.7280				
CT-9A	CT_09A	Siemens SGT-800 Turbine 9	0.7394	3.2388	3.2524	14.2457	3.2524	14.2457		0.1132	7.1817	15.7280				
CT-10A	CT_10A	Siemens SGT-800 Turbine 10	0.7394	3.2388	3.2524	14.2457	3.2524	14.2457		0.1132	7.1817	15.7280				
CT-11A	CT_11A	Siemens SGT-800 Turbine 11	0.7394	3.2388	3.2524	14.2457	3.2524	14.2457		0.1132	7.1817	15.7280				
CT-12A	CT_12A	Siemens SGT-800 Turbine 12	0.7394	3.2388	3.2524	14.2457	3.2524	14.2457		0.1132	7.1817	15.7280				
CT-13A	CT_13A	Siemens SGT-800 Turbine 13	0.7394	3.2388	3.2524	14.2457	3.2524	14.2457		0.1132	7.1817	15.7280				
CT-14A	CT_14A	Siemens SGT-800 Turbine 14	0.7394	3.2388	3.2524	14.2457	3.2524	14.2457		0.1132	7.1817	15.7280				
CT-15A	CT_15A	Siemens SGT-800 Turbine 15	0.7394	3.2388	3.2524	14.2457	3.2524	14.2457		0.1132	7.1817	15.7280				
CT-16A	CT_16A	Siemens SGT-800 Turbine 16	0.7394	3.2388	3.2524	14.2457	3.2524	14.2457		0.1132	7.1817	15.7280				
CT-17A	CT_17A	Siemens SGT-800 Turbine 17	0.7394	3.2388	3.2524	14.2457	3.2524	14.2457		0.1132	7.1817	15.7280				
CT-18A	CT_18A	Siemens SGT-800 Turbine 18	0.7394	3.2388	3.2524	14.2457	3.2524	14.2457		0.1132	7.1817	15.7280				
CT-19A	CT_19A	Siemens SGT-800 Turbine 19	0.7394	3.2388	3.2524	14.2457	3.2524	14.2457		0.1132	7.1817	15.7280				
CT-20A	CT_20A	Siemens SGT-800 Turbine 20	0.7394	3.2388	3.2524	14.2457	3.2524	14.2457		0.1132	7.1817	15.7280				
CT-21A	CT_21A	Siemens SGT-800 Turbine 21	0.7394	3.2388	3.2524	14.2457	3.2524	14.2457		0.1132	7.1817	15.7280				
CT-1B	CT_01B	Large-Frame Combustion Turbine 1	5.3544	23.4522	11.1038	48.6346	11.1038	48.6346		0.8194	52.0031	113.8869				
CT-2B	CT_02B	Large-Frame Combustion Turbine 2	5.3544	23.4522	11.1038	48.6346	11.1038	48.6346		0.8194	52.0031	113.8869				
CT-3B	CT_03B	Large-Frame Combustion Turbine 3	5.3544	23.4522	11.1038	48.6346	11.1038	48.6346		0.8194	52.0031	113.8869				
CT-4B	CT_04B	Large-Frame Combustion Turbine 4	5.3544	23.4522	11.1038	48.6346	11.1038	48.6346		0.8194	52.0031	113.8869				
CT-5B	CT_05B	Large-Frame Combustion Turbine 5	5.3544	23.4522	11.1038	48.6346	11.1038	48.6346		0.8194	52.0031	113.8869				
CT-6B	CT_06B	Large-Frame Combustion Turbine 6	5.3544	23.4522	11.1038	48.6346	11.1038	48.6346		0.8194	52.0031	113.8869				
CT-7B	CT_07B	Large-Frame Combustion Turbine 7	5.3544	23.4522	11.1038	48.6346	11.1038	48.6346		0.8194	52.0031	113.8869				
CT-8B	CT_08B	Large-Frame Combustion Turbine 8	5.3544	23.4522	11.1038	48.6346	11.1038	48.6346		0.8194	52.0031	113.8869				
CT-9B	CT_09B	Large-Frame Combustion Turbine 9	5.3544	23.4522	11.1038	48.6346	11.1038	48.6346		0.8194	52.0031	113.8869				
CT-10B	CT_10B	Large-Frame Combustion Turbine 10	5.3544	23.4522	11.1038	48.6346	11.1038	48.6346		0.8194	52.0031	113.8869				
CT-11B	CT_11B	Large-Frame Combustion Turbine 11	5.3544	23.4522	11.1038	48.6346	11.1038	48.6346		0.8194	52.0031	113.8869				
CT-12B	CT_12B	Large-Frame Combustion Turbine 12	5.3544	23.4522	11.1038	48.6346	11.1038	48.6346		0.8194	52.0031	113.8869				
CT-13B	CT_13B	Large-Frame Combustion Turbine 13	5.3544	23.4522	11.1038	48.6346	11.1038	48.6346		0.8194	52.0031	113.8869				
CT-14B	CT_14B	Large-Frame Combustion Turbine 14	5.3544	23.4522	11.1038	48.6346	11.1038	48.6346		0.8194	52.0031	113.8869				
DPHEAT1	DPHT_01	Dewpoint Heater 1	0.0123	0.0541	0.0656	0.2872	0.0656	0.2872								
DPHEAT2	DPHT_02	Dewpoint Heater 2	0.0123	0.0541	0.0656	0.2872	0.0656	0.2872								
DPHEAT3	DPHT_03	Dewpoint Heater 3	0.0123	0.0541	0.0656	0.2872	0.0656	0.2872								
DPHEAT4	DPHT_04	Dewpoint Heater 4	0.0123	0.0541	0.0656	0.2872	0.0656	0.2872								
DPHEAT5	DPHT_05	Dewpoint Heater 5	0.0123	0.0541	0.0656	0.2872	0.0656	0.2872								
DPHEAT6	DPHT_06	Dewpoint Heater 6	0.0156	0.0682	0.0827	0.3623	0.0827	0.3623								
DPHEAT7	DPHT_07	Dewpoint Heater 7	0.0156	0.0682	0.0827	0.3623	0.0827	0.3623								
DPHEAT8	DPHT_08	Dewpoint Heater 8	0.0156	0.0682	0.0827	0.3623	0.0827	0.3623								
DPHEAT9	DPHT_09	Dewpoint Heater 9	0.0156	0.0682	0.0827	0.3623	0.0827	0.3623								
DPHEAT10	DPHT_10	Dewpoint Heater 10	0.0156	0.0682	0.0827	0.3623	0.0827	0.3623								
DPHEAT11	DPHT_11	Dewpoint Heater 11	0.0156	0.0682	0.0827	0.3623	0.0827	0.3623								
DPHEAT12	DPHT_12	Dewpoint Heater 12	0.0156	0.0682	0.0827	0.3623	0.0827	0.3623								
DPHEAT13	DPHT_13	Dewpoint Heater 13	0.0156	0.0682	0.0827	0.3623	0.0827	0.3623								
DPHEAT14	DPHT_14	Dewpoint Heater 14	0.0156	0.0682	0.0827	0.3623	0.0827	0.3623								
DPHEAT15	DPHT_15	Dewpoint Heater 15	0.0156	0.0682	0.0827	0.3623	0.0827	0.3623								
DPHEAT16	DPHT_16	Dewpoint Heater 16	0.0156	0.0682	0.0827	0.3623	0.0827	0.3623								
DPHEAT17	DPHT_17	Dewpoint Heater 17	0.0156	0.0682	0.0827	0.3623	0.0827	0.3623								
DPHEAT18	DPHT_18	Dewpoint Heater 18	0.0156	0.0682	0.0827	0.3623	0.0827	0.3623								
DPHEAT19	DPHT_19	Dewpoint Heater 19	0.0156	0.0682	0.0827	0.3623	0.0827	0.3623								

Point Source Parameters and Emission Rate

EPN	Model ID	Description	SO2	SO2	PM10	PM10	PM2.5	PM2.5	H2S	H2SO4	NH3	NH3	LUBEOIL	LUBEOIL	DIESEL	DIESEL
			24-HR	ANN	24-HR	ANN	24-HR	ANN	30-MIN	1-HR/24-HR	1-HR	ANN	1-HR	ANN	1-HR	ANN
FPUMP1	FPUMP1	Firewater Pump 1	0.0033	0.0002	0.0017	0.0020	0.0017	0.0020								
FPUMP2	FPUMP2	Firewater Pump 2	0.0033	0.0002	0.0017	0.0020	0.0017	0.0020								
EGEN1	EGEN01	Emergency Engine 1	0.0532	0.0027	0.0702	0.0843	0.0702	0.0843								
EGEN2	EGEN02	Emergency Engine 2	0.0532	0.0027	0.0702	0.0843	0.0702	0.0843								
EGEN3	EGEN03	Emergency Engine 3	0.0532	0.0027	0.0702	0.0843	0.0702	0.0843								
EGEN4	EGEN04	Emergency Engine 4	0.0532	0.0027	0.0702	0.0843	0.0702	0.0843								
EGEN5	EGEN05	Emergency Engine 5	0.0532	0.0027	0.0702	0.0843	0.0702	0.0843								
EGEN6	EGEN06	Emergency Engine 6	0.0532	0.0027	0.0702	0.0843	0.0702	0.0843								
EGEN7	EGEN07	Emergency Engine 7	0.0532	0.0027	0.0702	0.0843	0.0702	0.0843								
EGEN8	EGEN08	Emergency Engine 8	0.0532	0.0027	0.0702	0.0843	0.0702	0.0843								
EGEN9	EGEN09	Emergency Engine 9	0.0532	0.0027	0.0702	0.0843	0.0702	0.0843								
EGEN10	EGEN10	Emergency Engine 10	0.0532	0.0027	0.0702	0.0843	0.0702	0.0843								
EGEN11	EGEN11	Emergency Engine 11	0.0532	0.0027	0.0702	0.0843	0.0702	0.0843								
EGEN12	EGEN12	Emergency Engine 12	0.0532	0.0027	0.0702	0.0843	0.0702	0.0843								
EGEN13	EGEN13	Emergency Engine 13	0.0532	0.0027	0.0702	0.0843	0.0702	0.0843								
EGEN14	EGEN14	Emergency Engine 14	0.0532	0.0027	0.0702	0.0843	0.0702	0.0843								
EGEN15	EGEN15	Emergency Engine 15	0.0532	0.0027	0.0702	0.0843	0.0702	0.0843								
ENGINE-1	ENGINE1	Supplemental Engine Generator 1	0.0944	0.0472	0.6413	0.3207	0.6413	0.3207								
ENGINE-2	ENGINE2	Supplemental Engine Generator 2	0.0944	0.0472	0.6413	0.3207	0.6413	0.3207								
CO-1	CO_01	Wet Surface Air Cooler (WSAC) 1			0.0594	0.2604	0.0002	0.0011								
CO-2	CO_02	Wet Surface Air Cooler (WSAC) 2			0.0594	0.2604	0.0002	0.0011								
CO-3	CO_03	Wet Surface Air Cooler (WSAC) 3			0.0594	0.2604	0.0002	0.0011								
CO-4	CO_04	Wet Surface Air Cooler (WSAC) 4			0.0594	0.2604	0.0002	0.0011								
CO-5	CO_05	Wet Surface Air Cooler (WSAC) 5			0.0594	0.2604	0.0002	0.0011								
CO-6	CO_06	Wet Surface Air Cooler (WSAC) 6			0.0405	0.1775	0.0002	0.0007								
CO-7	CO_07	Wet Surface Air Cooler (WSAC) 7			0.0405	0.1775	0.0002	0.0007								
CO-8	CO_08	Wet Surface Air Cooler (WSAC) 8			0.0405	0.1775	0.0002	0.0007								
CO-9	CO_09	Wet Surface Air Cooler (WSAC) 9			0.0405	0.1775	0.0002	0.0007								
CO-10	CO_10	Wet Surface Air Cooler (WSAC) 10			0.0405	0.1775	0.0002	0.0007								
CO-11	CO_11	Wet Surface Air Cooler (WSAC) 11			0.0405	0.1775	0.0002	0.0007								
CO-12	CO_12	Wet Surface Air Cooler (WSAC) 12			0.0405	0.1775	0.0002	0.0007								
CO-13	CO_13	Wet Surface Air Cooler (WSAC) 13			0.0405	0.1775	0.0002	0.0007								
CO-14	CO_14	Wet Surface Air Cooler (WSAC) 14			0.0405	0.1775	0.0002	0.0007								
CO-15	CO_15	Wet Surface Air Cooler (WSAC) 15			0.0405	0.1775	0.0002	0.0007								
CO-16	CO_16	Wet Surface Air Cooler (WSAC) 16			0.0405	0.1775	0.0002	0.0007								
CO-17	CO_17	Wet Surface Air Cooler (WSAC) 17			0.0405	0.1775	0.0002	0.0007								
CO-18	CO_18	Wet Surface Air Cooler (WSAC) 18			0.0405	0.1775	0.0002	0.0007								
CO-19	CO_19	Wet Surface Air Cooler (WSAC) 19			0.0405	0.1775	0.0002	0.0007								
OILVENT1	LOV_01A	Lube Oil Vent 1			0.0182	0.0795	0.0182	0.0795					0.0182	0.0795		
OILVENT2	LOV_02A	Lube Oil Vent 2			0.0182	0.0795	0.0182	0.0795					0.0182	0.0795		
OILVENT3	LOV_03A	Lube Oil Vent 3			0.0182	0.0795	0.0182	0.0795					0.0182	0.0795		
OILVENT4	LOV_04A	Lube Oil Vent 4			0.0182	0.0795	0.0182	0.0795					0.0182	0.0795		
OILVENT5	LOV_05A	Lube Oil Vent 5			0.0182	0.0795	0.0182	0.0795					0.0182	0.0795		
OILVENT6	LOV_06A	Lube Oil Vent 6			0.0182	0.0795	0.0182	0.0795					0.0182	0.0795		
OILVENT7	LOV_07A	Lube Oil Vent 7			0.0182	0.0795	0.0182	0.0795					0.0182	0.0795		
OILVENT8	LOV_08A	Lube Oil Vent 8			0.0182	0.0795	0.0182	0.0795					0.0182	0.0795		
OILVENT9	LOV_09A	Lube Oil Vent 9			0.0182	0.0795	0.0182	0.0795					0.0182	0.0795		
OILVENT10	LOV_10A	Lube Oil Vent 10			0.0182	0.0795	0.0182	0.0795					0.0182	0.0795		
OILVENT11	LOV_11A	Lube Oil Vent 11			0.0182	0.0795	0.0182	0.0795					0.0182	0.0795		
OILVENT12	LOV_12A	Lube Oil Vent 12			0.0182	0.0795	0.0182	0.0795					0.0182	0.0795		
OILVENT13	LOV_13A	Lube Oil Vent 13			0.0182	0.0795	0.0182	0.0795					0.0182	0.0795		
OILVENT14	LOV_14A	Lube Oil Vent 14			0.0182	0.0795	0.0182	0.0795					0.0182	0.0795		
OILVENT15	LOV_15A	Lube Oil Vent 15			0.0182	0.0795	0.0182	0.0795					0.0182	0.0795		
OILVENT16	LOV_16A	Lube Oil Vent 16			0.0182	0.0795	0.0182	0.0795					0.0182	0.0795		
OILVENT17	LOV_17A	Lube Oil Vent 17			0.0182	0.0795	0.0182	0.0795					0.0182	0.0795		
OILVENT18	LOV_18A	Lube Oil Vent 18			0.0182	0.0795	0.0182	0.0795					0.0182	0.0795		

Point Source Parameters and Emission Rates

EPN	Model ID	Description	SO2	SO2	PM10	PM10	PM2.5	PM2.5	H2S	H2SO4	NH3	NH3	LUBEOIL	LUBEOIL	DIESEL	DIESEL
			24-HR	ANN	24-HR	ANN	24-HR	ANN	30-MIN	1-HR/24-HR	1-HR	ANN	1-HR	ANN	1-HR	ANN
OILVENT19	LOV_19A	Lube Oil Vent 19			0.0182	0.0795	0.0182	0.0795					0.0182	0.0795		
OILVENT20	LOV_20A	Lube Oil Vent 20			0.0182	0.0795	0.0182	0.0795					0.0182	0.0795		
OILVENT21	LOV_21A	Lube Oil Vent 21			0.0182	0.0795	0.0182	0.0795					0.0182	0.0795		
OILVENT22	LOV_01B	Lube Oil Vent 22			0.0182	0.0795	0.0182	0.0795					0.0182	0.0795		
OILVENT23	LOV_02B	Lube Oil Vent 23			0.0182	0.0795	0.0182	0.0795					0.0182	0.0795		
OILVENT24	LOV_03B	Lube Oil Vent 24			0.0182	0.0795	0.0182	0.0795					0.0182	0.0795		
OILVENT25	LOV_04B	Lube Oil Vent 25			0.0182	0.0795	0.0182	0.0795					0.0182	0.0795		
OILVENT26	LOV_05B	Lube Oil Vent 26			0.0182	0.0795	0.0182	0.0795					0.0182	0.0795		
OILVENT27	LOV_06B	Lube Oil Vent 27			0.0182	0.0795	0.0182	0.0795					0.0182	0.0795		
OILVENT28	LOV_07B	Lube Oil Vent 28			0.0182	0.0795	0.0182	0.0795					0.0182	0.0795		
OILVENT29	LOV_08B	Lube Oil Vent 29			0.0182	0.0795	0.0182	0.0795					0.0182	0.0795		
OILVENT30	LOV_09B	Lube Oil Vent 30			0.0182	0.0795	0.0182	0.0795					0.0182	0.0795		
OILVENT31	LOV_10B	Lube Oil Vent 31			0.0182	0.0795	0.0182	0.0795					0.0182	0.0795		
OILVENT32	LOV_11B	Lube Oil Vent 32			0.0182	0.0795	0.0182	0.0795					0.0182	0.0795		
OILVENT33	LOV_12B	Lube Oil Vent 33			0.0182	0.0795	0.0182	0.0795					0.0182	0.0795		
OILVENT34	LOV_13B	Lube Oil Vent 34			0.0182	0.0795	0.0182	0.0795					0.0182	0.0795		
OILVENT35	LOV_14B	Lube Oil Vent 35			0.0182	0.0795	0.0182	0.0795					0.0182	0.0795		
TNK-DSL1	TNK_DSL1	Diesel Tank 1													0.1091	0.0060
TNK-DSL2	TNK_DSL2	Diesel Tank 2													0.1091	0.0060
TNK-DSL3	TNK_DSL3	Diesel Tank 3													0.1091	0.0060
TNK-DSL4	TNK_DSL4	Diesel Tank 4													0.1091	0.0060
TNK-DSL5	TNK_DSL5	Diesel Tank 5													0.1091	0.0030
TNK-DSL6	TNK_DSL6	Diesel Tank 6													0.1091	0.0030
TNK-DSL7	TNK_DSL7	Diesel Tank 7													0.1091	0.0030

Area Source Parameters and Emission Rates

EPN	Model ID	Description	SO2	SO2	PM10	PM10	PM2.5	PM2.5	H2S	H2SO4	NH3	NH3	LUBEOIL	LUBEOIL	DIESEL	DIESEL
			24-HR	ANN	24-HR	ANN	24-HR	ANN	30-MIN	1-HR/24-HR	1-HR	ANN	1-HR	ANN	1-HR	ANN
NGFUG	NGFUG	Natural Gas Piping Fugitives							4.98E-05							
NH3FUG	NH3FUG	SCR Delivery System Fugitives									0.0152	0.0666				
MSSFUG	MSSFUG	ILE Turbine Maintenance Activities			0.0721	0.0002	0.0109	0.0000	0.0046		0.1268	0.0009			8.5604	0.5547

Attachment B
Off-Property Source Inventory

Off-Property Source Inventory **Site Location:** 700489 3451366

ID Number	EPN	Permit No.	RN	Type	Model ID	Release Point UTM Easting	Release Point UTM Northing	Base Elevation	Stack Height	Temp.	Exit Velocity	Stack Diameter	Modeled Emission Rates						Distance	Notes
													1-Hour NOx	Annual NOx	24-Hour PM10	Annual PM10	24-Hour PM2.5	Annual PM2.5		
						(m)	(m)	(m)	(ft)	(F)	(ft/sec)	(ft)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(m)	
4156	2	8409	RN100210087	STACK	APAD01	692928	3429917	873.50	38	740	78	2	44.11	193.20					22.74	
4516	11	8218	RN100227875	STACK	APAD02	724005	3486594	797.90	35	800	98.42	1.17	31.42	137.60					42.36	
4517	12	8218	RN100227875	STACK	APAD03	729806	3486717	797.26	35	800	98.37	1.17	31.42	137.60					45.93	
4614	E-3	8120	RN102556842	STACK	APAD04	685556	3481371	779.20	21	733	30	1	16.15	70.73					33.52	
4615	E-4	8120	RN102556842	STACK	APAD05	685556	3481371	779.20	21	733	30	1	16.15	70.73					33.52	
4616	H-2	8120	RN102556842	STACK	APAD06	685551	3481371	779.22	19	300	30	1	0.21	0.92					33.52	
5691	3	7428	RN102530110	STACK	APAD07	684109	3443335	839.60	10	300	0.31	0.67	0.06	0.25					18.24	
5693	2	7428	RN102530110	STACK	APAD08	684109	3443335	839.60	33	300	0.42	0.67	0.08	0.35					18.24	
6308	6	7065	RN102297983	STACK	APAD09	725595	3486351	794.60	25	350	3.51	0.83	0.35	0.18					43.06	
6979	STACK9	6738	RN100226695	STACK	APAD10	687035	3439689	853.81	37	500	0.25	0.67	0.05	0.21					17.81	
6980	STACK4	6738	RN100226695	STACK	APAD11	686720	3451481	810.40	35	500	0.24	0.67	0.07	0.29					13.77	
6981	STACK8	6738	RN100226695	STACK	APAD12	686720	3451481	810.40	36	500	0.25	0.67	0.05	0.21					13.77	
7496	2	6448	RN102707122	STACK	APAD13	742428	3458409	709.19	30	1100	2.39	0.67	1.50	6.57					42.53	
28292	CE-1	14071	RN102607975	STACK	APAD14	700448	3458234	755.07	18	950	136	0.83	19.80	86.72					6.87	Revised UTM coordinates based on site location.
28632	8	13601	RN102527074	STACK	APAD15	671550	3470720	787.00	9	800	8	0.25	0.84	3.70					34.81	
28851	01	13230	RN102603107	STACK	APAD16	688734	3483769	796.10	12	1100	87	0.29	1.87	8.19					34.47	
28871	2	13176	RN102529328	STACK	APAD17	676065	3445723	838.66	18	300	10	0.8	0.07	0.29					25.07	
29445	TURB-GE1	12264	RN102522539	STACK	APAD18	680434	3461946	786.39	50	777	70	8.5	2.81	12.30					22.67	
29461	1	12213	RN102575990	STACK	APAD19	700081	3495071	794.31	20	1000	25	2	0.15	0.22					43.71	
29472	13	12198	RN102529658	STACK	APAD20	673211	3446877	837.44	10	500	100	0.25	5.41	23.70					27.64	
29473	14	12198	RN102529658	STACK	APAD21	673211	3446877	837.44	26	400	20	0.67	0.08	0.34					27.64	
29474	9	12198	RN102529658	STACK	APAD22	673211	3446877	837.44	31	400	20	0.67	0.11	0.48					27.64	
29476	2	12198	RN102529658	STACK	APAD23	673211	3446877	837.44	10	450	40	0.33	5.41	23.70					27.64	
29520	HT-6	12076	RN102527454	STACK	APAD24	745954	3457104	709.13	30	400	30	12.75	0.05	0.22					45.83	
29849	C-1	11424	RN102776739	STACK	APAD25	674211	3480744	797.61	15	600	90	0.25	5.50	24.09					39.42	
296937	FLARE-1	73442	RN102522539	FLARE	APAD26	680211	3461768	787.24	100	1831.73	65.62	0.61	24.43	0.05					22.79	Effective flare diameter calculated.
375389	ENC FL	102389	RN106395262		APAD27	668065	3482026	807.29	3.28	-459.67	0.0033	0.0033	0.21	0.92	0.02	0.09			44.62	Stack parameters were missing. Modeled as a pseudo-point source with release height of 1 m.
375392	FLARE	102389	RN106395262		APAD28	668065	3482026	807.29	3.28	-459.67	0.0033	0.0033	0.28	0.12	0.01	0.01			44.62	Stack parameters were missing. Modeled as a pseudo-point source with release height of 1 m.
375393	ENG1	102389	RN106395262		APAD29	668065	3482026	807.29	3.28	-459.67	0.0033	0.0033	0.45	1.96	0.03	0.14			44.62	Stack parameters were missing. Modeled as a pseudo-point source with release height of 1 m.
375396	HEAT	102389	RN106395262		APAD30	668065	3482026	807.29	3.28	-459.67	0.0033	0.0033	0.05	0.22	0.01	0.02			44.62	Stack parameters were missing. Modeled as a pseudo-point source with release height of 1 m.
375673	ENC FL	107361	RN106567852	FLARE	APAD31	719703	3492981	818.67	3.28	1831.73	65.62	0.00	0.21	0.92	0.02	0.09	0.02	0.09	45.84	Stack parameters were missing. Modeled using TCEQ default parameters for flares.
549613	49	151616	RN109884361		APAD32	709633	3499164	823.88	69.88	-459.67	61.91	5.17			0.54	2.36	0.54	2.36	48.66	Stack parameters were missing. Revised using permitting files.

Off-Property Source Inventory **Site Location:** 700489 3451366

ID Number	EPN	Permit No.	RN	Type	Model ID	Release Point UTM Easting	Release Point UTM Northing	Base Elevation	Stack Height	Temp.	Exit Velocity	Stack Diameter	Modeled Emission Rates						Distance	Notes
													1-Hour NOx	Annual NOx	24-Hour PM10	Annual PM10	24-Hour PM2.5	Annual PM2.5		
						(m)	(m)	(m)	(ft)	(F)	(ft/sec)	(ft)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(m)	
549614	50	151616	RN109884361		APAD33	709633	3499164	823.88	69.88	-459.67	61.91	5.17			0.54	2.36	0.54	2.36	48.66	Stack parameters were missing. Revised using permitting files.
549615	51	151616	RN109884361		APAD34	709633	3499164	823.88	69.88	-459.67	61.91	5.17			0.54	2.36	0.54	2.36	48.66	Stack parameters were missing. Revised using permitting files.
549616	45	151616	RN109884361		APAD35	709633	3499164	823.88	69.88	249.53	56.15	3.75	5.10	22.33	0.83	3.62	0.73	3.20	48.66	Stack parameters were missing. Revised using permitting files.
549617	46	151616	RN109884361		APAD36	709633	3499164	823.88	69.88	249.53	56.15	3.75	5.10	22.33	0.83	3.62	0.73	3.20	48.66	Stack parameters were missing. Revised using permitting files.
549618	47	151616	RN109884361		APAD37	709633	3499164	823.88	69.88	249.53	56.15	3.75	5.10	22.33	0.83	3.62	0.73	3.20	48.66	Stack parameters were missing. Revised using permitting files.
549619	48	151616	RN109884361		APAD38	709633	3499164	823.88	69.88	249.53	56.15	3.75	5.10	22.33	0.83	3.62	0.73	3.20	48.66	Stack parameters were missing. Revised using permitting files.
549620	52	151616	RN109884361		APAD39	709633	3499164	823.88	45.93	-459.67	21.88	0.98			0.09	0.38	0.09	0.38	48.66	Stack parameters were missing. Revised using permitting files.
549621	53	151616	RN109884361		APAD40	709633	3499164	823.88	12.00	600.53	84.88	0.50	0.33	0.72	0.02	0.04	0.02	0.04	48.66	Stack parameters were missing. Revised using permitting files.
549622	STK	151616	RN109884361		APAD41	709633	3499164	823.88	10	-459.67	0.0033	0.0033				0.60		0.09	48.66	Stack parameters were missing. Modeled as a pseudo-point source with release height of 10 ft.
638062	JAW	162386	RN111040200		APAD42	718279	3468870	727.56	3.28	-459.67	0.0033	0.0033			0.04	0.03	0.01	0.01	24.96	Stack parameters were missing. Modeled as a pseudo-point source with release height of 1 m.
638063	HSI	162386	RN111040200		APAD43	718729	3468870	728.36	3.28	-459.67	0.0033	0.0033			0.14	0.13	0.02	0.02	25.28	Stack parameters were missing. Modeled as a pseudo-point source with release height of 1 m.
638064	VSI	162386	RN111040200		APAD44	718279	3468870	727.56	3.28	-459.67	0.0033	0.0033			0.07	0.04	0.01	0.01	24.96	Stack parameters were missing. Modeled as a pseudo-point source with release height of 1 m.
638065	SCREEN1-D	162386	RN111040200		APAD45	718279	3468870	727.56	3.28	-459.67	0.0033	0.0033			0.91	0.72	0.14	0.11	24.96	Stack parameters were missing. Modeled as a pseudo-point source with release height of 1 m.
638066	SCREEN2-D	162386	RN111040200		APAD46	718279	3468870	727.56	3.28	-459.67	0.0033	0.0033			0.26	0.23	0.04	0.03	24.96	Stack parameters were missing. Modeled as a pseudo-point source with release height of 1 m.
638067	SCREEN3-D	162386	RN111040200		APAD47	718279	3468870	727.56	3.28	-459.67	0.0033	0.0033			0.26	0.23	0.04	0.03	24.96	Stack parameters were missing. Modeled as a pseudo-point source with release height of 1 m.
638068	UNLOAD	162386	RN111040200		APAD48	718729	3468870	728.36	3.28	-459.67	0.0033	0.0033			0.01	0.01	0.01	0.01	25.28	Stack parameters were missing. Modeled as a pseudo-point source with release height of 1 m.
638069	LOAD	162386	RN111040200		APAD49	718729	3468870	728.36	3.28	-459.67	0.0033	0.0033			0.01	0.01	0.01	0.01	25.28	Stack parameters were missing. Modeled as a pseudo-point source with release height of 1 m.
638084	SCREW1-W	162386	RN111040200		APAD50	718279	3468870	727.56	3.28	-459.67	0.0033	0.0033			0.01	0.01	0.01	0.01	24.96	Stack parameters were missing. Modeled as a pseudo-point source with release height of 1 m.
638085	SCREW2-W	162386	RN111040200		APAD51	718279	3468870	727.56	3.28	-459.67	0.0033	0.0033			0.01	0.01	0.01	0.01	24.96	Stack parameters were missing. Modeled as a pseudo-point source with release height of 1 m.
638086	WASHER1-W	162386	RN111040200		APAD52	718279	3468870	727.56	3.28	-459.67	0.0033	0.0033			0.01	0.01	0.01	0.01	24.96	Stack parameters were missing. Modeled as a pseudo-point source with release height of 1 m.
638087	WASHER2-W	162386	RN111040200		APAD53	718279	3468870	727.56	3.28	-459.67	0.0033	0.0033			0.01	0.01	0.01	0.01	24.96	Stack parameters were missing. Modeled as a pseudo-point source with release height of 1 m.
638088	WASHER3-W	162386	RN111040200		APAD54	718279	3468870	727.56	3.28	-459.67	0.0033	0.0033			0.01	0.01	0.01	0.01	24.96	Stack parameters were missing. Modeled as a pseudo-point source with release height of 1 m.
638089	WASHER4-W	162386	RN111040200		APAD55	718279	3468870	727.56	3.28	-459.67	0.0033	0.0033			0.01	0.01	0.01	0.01	24.96	Stack parameters were missing. Modeled as a pseudo-point source with release height of 1 m.
638099	ENGINE	162386	RN111040200		APAD56	718279	3468870	727.56	6.40	801	140	0.6234	2.52	5.72	0.07	0.17	0.07	0.17	24.96	Stack parameters were missing. Revised using permitting files.
675309	GLY-5	46	RN100210087		APAD57	693124	3430003	871.26	3.28	-459.67	0.0033	0.0033	0.37	1.61	0.03	0.12	0.03	0.12	22.60	Stack parameters were missing. Modeled as a pseudo-point source with release height of 1 m.
675310	INCIN-1	46	RN100210087	STACK	APAD58	693138	3429929	870.79	100	1000	17	6	2.41	10.57	0.18	0.81	0.18	0.81	22.66	
684297	JAW	167535	RN111040200		APAD59	718279	3468870	727.56	3.28	-459.67	0.0033	0.0033			0.04	0.03	0.01	0.01	24.96	Stack parameters were missing. Modeled as a pseudo-point source with release height of 1 m.
684298	HSI	167535	RN111040200		APAD60	718729	3468870	728.36	3.28	-459.67	0.0033	0.0033			0.14	0.13	0.02	0.02	25.28	Stack parameters were missing. Modeled as a pseudo-point source with release height of 1 m.
684299	VSI	167535	RN111040200		APAD61	718279	3468870	727.56	3.28	-459.67	0.0033	0.0033			0.07	0.04	0.01	0.01	24.96	Stack parameters were missing. Modeled as a pseudo-point source with release height of 1 m.
684300	SCREEN1-D	167535	RN111040200		APAD62	718279	3468870	727.56	3.28	-459.67	0.0033	0.0033			0.91	0.72	0.14	0.11	24.96	Stack parameters were missing. Modeled as a pseudo-point source with release height of 1 m.
684301	SCREEN2-D	167535	RN111040200		APAD63	718279	3468870	727.56	3.28	-459.67	0.0033	0.0033			0.26	0.23	0.04	0.03	24.96	Stack parameters were missing. Modeled as a pseudo-point source with release height of 1 m.
684302	SCREEN3-D	167535	RN111040200		APAD64	718279	3468870	727.56	3.28	-459.67	0.0033	0.0033			0.26	0.23	0.04	0.03	24.96	Stack parameters were missing. Modeled as a pseudo-point source with release height of 1 m.

Off-Property Source Inventory

Site Location: 700489 3451366

ID Number	EPN	Permit No.	RN	Type	Model ID	Release Point UTM Easting	Release Point UTM Northing	Base Elevation	Stack Height	Temp.	Exit Velocity	Stack Diameter	Modeled Emission Rates						Distance	Notes
													1-Hour NOx	Annual NOx	24-Hour PM10	Annual PM10	24-Hour PM2.5	Annual PM2.5		
						(m)	(m)	(m)	(ft)	(F)	(ft/sec)	(ft)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(m)	
684303	UNLOAD	167535	RN111040200		APAD65	718729	3468870	728.36	3.28	-459.67	0.0033	0.0033			0.01	0.01	0.01	0.01	25.28	Stack parameters were missing. Modeled as a pseudo-point source with release height of 1 m.
684304	LOAD	167535	RN111040200		APAD66	718729	3468870	728.36	3.28	-459.67	0.0033	0.0033			0.01	0.01	0.01	0.01	25.28	Stack parameters were missing. Modeled as a pseudo-point source with release height of 1 m.
684319	SCREW1-W	167535	RN111040200		APAD67	718279	3468870	727.56	3.28	-459.67	0.0033	0.0033			0.01	0.01	0.01	0.01	24.96	Stack parameters were missing. Modeled as a pseudo-point source with release height of 1 m.
684320	SCREW2-W	167535	RN111040200		APAD68	718279	3468870	727.56	3.28	-459.67	0.0033	0.0033			0.01	0.01	0.01	0.01	24.96	Stack parameters were missing. Modeled as a pseudo-point source with release height of 1 m.
684321	WASHER1-W	167535	RN111040200		APAD69	718279	3468870	727.56	3.28	-459.67	0.0033	0.0033			0.01	0.01	0.01	0.01	24.96	Stack parameters were missing. Modeled as a pseudo-point source with release height of 1 m.
684322	WASHER2-W	167535	RN111040200		APAD70	718279	3468870	727.56	3.28	-459.67	0.0033	0.0033			0.01	0.01	0.01	0.01	24.96	Stack parameters were missing. Modeled as a pseudo-point source with release height of 1 m.
684323	WASHER3-W	167535	RN111040200		APAD71	718279	3468870	727.56	3.28	-459.67	0.0033	0.0033			0.01	0.01	0.01	0.01	24.96	Stack parameters were missing. Modeled as a pseudo-point source with release height of 1 m.
684324	WASHER4-W	167535	RN111040200		APAD72	718279	3468870	727.56	3.28	-459.67	0.0033	0.0033			0.01	0.01	0.01	0.01	24.96	Stack parameters were missing. Modeled as a pseudo-point source with release height of 1 m.
684334	ENGINE	167535	RN111040200		APAD73	718279	3468870	727.56	6.40	801	140	0.6234	2.52	5.72	0.07	0.17	0.07	0.17	24.96	Stack parameters were missing. Revised using permitting files.
721379	1	170000	RN111427860		APAD74	707562	3499502	819.66	3.28	-459.67	0.0033	0.0033			0.01	0.04	0.01	0.01	48.65	Stack parameters were missing. Modeled as a pseudo-point source with release height of 1 m.
734905	13	2351A	RN100239698	STACK	APAD75	691520	3452397	797.55	20	700	70	0.83	4.31	18.86	0.08	0.36	0.08	0.36	9.03	
734910	11	2351A	RN100239698	STACK	APAD76	691592	3452423	797.35	25	540	25	1.17	0.15	0.65	0.01	0.05	0.01	0.05	8.96	
734911	7	2351A	RN100239698	FLARE	APAD77	691681	3452422	797.14	100	1831.73	65.62	1.31	0.21	0.91					8.87	Effective flare diameter calculated.
734913	14	2351A	RN100239698	STACK	APAD78	691534	3452388	797.51	20	700	70	0.83	4.31	18.86	0.08	0.36	0.08	0.36	9.01	
734914	15	2351A	RN100239698	STACK	APAD79	691415	3452485	797.60	40	500	18	2	0.20	0.88	0.02	0.11	0.02	0.11	9.14	
734915	9	2351A	RN100239698	STACK	APAD80	691410	3452461	797.68	160	1000	22	4.5	21.93	83.40	0.78	3.43	0.78	3.48	9.14	
734919	4	2351A	RN100239698	FLARE	APAD81	691675	3452432	797.14	100	1831.73	65.62	12.93	0.01	0.10					8.88	Effective flare diameter calculated.
737054	2	71958	RN101980167		APAD82	684105	3462186	781.54	3.28	-459.67	0.0033	0.0033				0.61		0.04	19.63	Stack parameters were missing. Modeled as a pseudo-point source with release height of 1 m.
753961	600	73438	RN102526761	STACK	APAD83	682488	3461128	786.56	12	800	95	2.17	141.09	617.99	0.30	1.31	0.30	1.31	20.48	MAERT is missing PM2.5 emissions. Added PM2.5 emissions to inventory.
753962	601	73438	RN102526761	STACK	APAD84	682478	3461128	786.59	12	800	95	2.17	141.09	617.99	0.30	1.31	0.30	1.31	20.49	MAERT is missing PM2.5 emissions. Added PM2.5 emissions to inventory.
766402	PB-EDGS	9659	RN102183969	STACK	APAD85	693532	3495907	806.92	50	700	72	1	0.30	1.32	1.48	0.04	1.48	0.04	45.08	Intermittent source. 1-hour NOx emission rate adjusted based on 52 hrs/yr operation.
766403	PB-CTS1	9659	RN102183969	STACK	APAD86	693585	3496020	806.55	60	700	70	20	376.00	1410.00	51.80	194.00	51.80	194.00	45.18	Revised release height per permitting files.
766404	PB-CTS2	9659	RN102183969	STACK	APAD87	693613	3496033	806.34	60	700	70	20	376.00	1410.00	51.80	194.00	51.80	194.00	45.19	Revised release height per permitting files.
766405	PB-CTS3	9659	RN102183969	STACK	APAD88	693645	3496041	806.43	60	700	70	20	376.00	1410.00	51.80	194.00	51.80	194.00	45.20	Revised release height per permitting files.
766406	PB-CTS4	9659	RN102183969	STACK	APAD89	693677	3496046	805.99	60	700	70	20	376.00	1410.00	51.80	194.00	51.80	194.00	45.20	Revised release height per permitting files.
766407	PB-CTS5	9659	RN102183969	STACK	APAD90	693705	3496062	803.88	60	570	70	12	376.00	1410.00	51.80	194.00	51.80	194.00	45.21	Revised release height per permitting files.
766408	MSS-FUG	9659	RN102183969		APAD91	693448	3496155	806.53	3.28	-459.67	0.0033	0.0033			0.01	0.01	0.01	0.01	45.34	Stack parameters were missing. Modeled as a pseudo-point source with release height of 1 m.
767517	TEGREB	74857	RN100211408		APAD92	682132	3460938	787.71	3.28	-459.67	0.0033	0.0033	0.01	0.04					20.70	Stack parameters were missing. Modeled as a pseudo-point source with release height of 1 m.
767518	70	74857	RN100211408		APAD93	682132	3460938	787.71	3.28	-459.67	0.0033	0.0033	1.10	0.07					20.70	Stack parameters were missing. Modeled as a pseudo-point source with release height of 1 m.

= Input parameter modified by TRC (either inaccurate or missing)

Attachment C
Summary of PSD Modeling Files

The following input and output files are being provided electronically to the TCEQ for review via the TCEQ File Transfer Protocol (FTP) secure site.

METEOROLOGICAL FILES

The meteorological files (*.sfc and *.pfl) listed in Table C-1 were obtained from TCEQ and used in the modeling.

Table C-1 AERMOD Input Meteorological Files

File Name	Description
PECOS_FSTDRT17M.SFC	Surface meteorological data for 2017 – Medium Surface Roughness
PECOS_FSTDRT18M.SFC	Surface meteorological data for 2018 – Medium Surface Roughness
PECOS_FSTDRT19M.SFC	Surface meteorological data for 2019 – Medium Surface Roughness
PECOS_FSTDRT20M.SFC	Surface meteorological data for 2020 – Medium Surface Roughness
PECOS_FSTDRT21M.SFC	Surface meteorological data for 2021 – Medium Surface Roughness
PECOS_FSTDRT17M.PFL	Profile meteorological data for 2017 – Medium Surface Roughness
PECOS_FSTDRT18M.PFL	Profile meteorological data for 2018 – Medium Surface Roughness
PECOS_FSTDRT19M.PFL	Profile meteorological data for 2019 – Medium Surface Roughness
PECOS_FSTDRT20M.PFL	Profile meteorological data for 2020 – Medium Surface Roughness
PECOS_FSTDRT21M.PFL	Profile meteorological data for 2021 – Medium Surface Roughness

NATIONAL LAND COVER DATABASE (NLCD) FILES

The NLCD files listed in Table C-2 were downloaded from the EPA's FTP site (https://gaftp.epa.gov/Air/aqmg/nlcd/2011-2021_2021ed/2021/) and used by AERSURFACE to determine the appropriate surface roughness.

Table C-2 AERSURFACE Input National Land Cover Database (NLCD) Files

File Name	Description
2021_R06_TX-West_Land_Cover.TIF	2021 NLCD Land Cover File
2021_R06_TX-West_Impervious.TIF	2021 NLCD Impervious File
2021_R06_TX-West_Canopy.TIF	2021 NLCD Tree Canopy File

AERMOD DISPERSION MODELING FILES

AERMOD version 24142 was used for all modeling analyses using Providence/Oris LLC's "BEE-Line BEEST for Windows" graphic user interface (Version 12.13). Each BEEST model run generates a .DTA, .GRF, .LST, and .SUM file. Results for each modeling run are contained in the .SUM files. Tables C-3 through C-6 provide the name and purpose of each PSD modeling run. The site downwash files (.PIP, .PRW, .SO, .SUM, and .TAB) are listed in Table C-7.

Table C-3 Model File Names – SIL Analysis for NAAQS & PSD Class II Increments

File Name	Pollutant & Averaging Time	Met Years
Pacifico_2017-2021_01CO	CO 1-hour	2017-2021
Pacifico_2017-2021_08CO	CO 8-hour	2017-2021
Pacifico_2017-2021_NO2	NO2 1-hour	2017-2021
Pacifico_2017_99NO2	NO2 Annual	2017
Pacifico_2018_99NO2	NO2 Annual	2018
Pacifico_2019_99NO2	NO2 Annual	2019
Pacifico_2020_99NO2	NO2 Annual	2020
Pacifico_2021_99NO2	NO2 Annual	2021
Pacifico_2017-2021_SO2	SO2 1-hour	2017-2021
Pacifico_2017-2021_03SO2	SO2 3-hour	2017-2021
Pacifico_2017-2021_24SO2	SO2 24-hour	2017-2021
Pacifico_2017_99SO2	SO2 Annual	2017
Pacifico_2018_99SO2	SO2 Annual	2018
Pacifico_2019_99SO2	SO2 Annual	2019
Pacifico_2020_99SO2	SO2 Annual	2020
Pacifico_2021_99SO2	SO2 Annual	2021
Pacifico_2017-2021_PM10	PM10 24-hour	2017-2021
Pacifico_2017_99PM10	PM10 Annual	2017
Pacifico_2018_99PM10	PM10 Annual	2018
Pacifico_2019_99PM10	PM10 Annual	2019
Pacifico_2020_99PM10	PM10 Annual	2020
Pacifico_2021_99PM10	PM10 Annual	2021
Pacifico_2017-2021_PM2.5	PM2.5 24-hour	2017-2021
Pacifico_2017_PM2.5	PM2.5 24-hour	2017
Pacifico_2018_PM2.5	PM2.5 24-hour	2018

File Name	Pollutant & Averaging Time	Met Years
Pacifico_2019_PM2.5	PM2.5 24-hour	2019
Pacifico_2020_PM2.5	PM2.5 24-hour	2020
Pacifico_2021_PM2.5	PM2.5 24-hour	2021
Pacifico_2017-2021_99PM2.5	PM2.5 Annual	2017-2021
Pacifico_2017_99PM2.5	PM2.5 Annual	2017
Pacifico_2018_99PM2.5	PM2.5 Annual	2018
Pacifico_2019_99PM2.5	PM2.5 Annual	2019
Pacifico_2020_99PM2.5	PM2.5 Annual	2020
Pacifico_2021_99PM2.5	PM2.5 Annual	2021

Table C-4 Model File Names – Cumulative Modeling Analysis

File Name	Pollutant & Averaging Time	Met Years
PacificoPSD_2017-2021_NO2	NO_2 1-hour	2017-2021
PacificoPSD_2017_99NO2	NO_2 Annual	2017
PacificoPSD_2018_99NO2	NO_2 Annual	2018
PacificoPSD_2019_99NO2	NO_2 Annual	2019
PacificoPSD_2020_99NO2	NO_2 Annual	2020
PacificoPSD_2021_99NO2	NO_2 Annual	2021
PacificoPSD_2017-2021_PM10	PM_{10} 24-hour	2017-2021
PacificoPSD_2017-2021_PM2.5	$PM_{2.5}$ 24-hour	2017-2021
PacificoPSD_2017_PM2.5	$PM_{2.5}$ 24-hour	2017
PacificoPSD_2018_PM2.5	$PM_{2.5}$ 24-hour	2018
PacificoPSD_2019_PM2.5	$PM_{2.5}$ 24-hour	2019
PacificoPSD_2020_PM2.5	$PM_{2.5}$ 24-hour	2020
PacificoPSD_2021_PM2.5	$PM_{2.5}$ 24-hour	2021
PacificoPSD_2017-2021_99PM2.5	$PM_{2.5}$ Annual	2017-2021
PacificoPSD_2017_99PM2.5	$PM_{2.5}$ Annual	2017
PacificoPSD_2018_99PM2.5	$PM_{2.5}$ Annual	2018
PacificoPSD_2019_99PM2.5	$PM_{2.5}$ Annual	2019
PacificoPSD_2020_99PM2.5	$PM_{2.5}$ Annual	2020
PacificoPSD_2021_99PM2.5	$PM_{2.5}$ Annual	2021

Table C-5 Model File Names – SIL Analysis for PSD Class I Increment at 50 km

File Name	Pollutant & Averaging Time	Met Years	Receptor Elevation
Pacifico_2017_99NO2_C1_50KM_MAX	NO_2 Annual	2017	Maximum
Pacifico_2017_99NO2_C1_50KM_MED	NO_2 Annual	2017	Median
Pacifico_2017_99NO2_C1_50KM_MIN	NO_2 Annual	2017	Minimum
Pacifico_2018_99NO2_C1_50KM_MAX	NO_2 Annual	2018	Maximum
Pacifico_2018_99NO2_C1_50KM_MED	NO_2 Annual	2018	Median
Pacifico_2018_99NO2_C1_50KM_MIN	NO_2 Annual	2018	Minimum
Pacifico_2019_99NO2_C1_50KM_MAX	NO_2 Annual	2019	Maximum
Pacifico_2019_99NO2_C1_50KM_MED	NO_2 Annual	2019	Median
Pacifico_2019_99NO2_C1_50KM_MIN	NO_2 Annual	2019	Minimum
Pacifico_2020_99NO2_C1_50KM_MAX	NO_2 Annual	2020	Maximum
Pacifico_2020_99NO2_C1_50KM_MED	NO_2 Annual	2020	Median
Pacifico_2020_99NO2_C1_50KM_MIN	NO_2 Annual	2020	Minimum
Pacifico_2021_99NO2_C1_50KM_MAX	NO_2 Annual	2021	Maximum
Pacifico_2021_99NO2_C1_50KM_MED	NO_2 Annual	2021	Median
Pacifico_2021_99NO2_C1_50KM_MIN	NO_2 Annual	2021	Minimum
Pacifico_2017-2021_03SO2_C1_50KM_MAX	SO_2 3-hour	2017-2021	Maximum
Pacifico_2017-2021_03SO2_C1_50KM_MED	SO_2 3-hour	2017-2021	Median
Pacifico_2017-2021_03SO2_C1_50KM_MIN	SO_2 3-hour	2017-2021	Minimum
Pacifico_2017-2021_24SO2_C1_50KM_MAX	SO_2 24-hour	2017-2021	Maximum
Pacifico_2017-2021_24SO2_C1_50KM_MED	SO_2 24-hour	2017-2021	Median
Pacifico_2017-2021_24SO2_C1_50KM_MIN	SO_2 24-hour	2017-2021	Minimum
Pacifico_2017_99SO2_C1_50KM_MAX	SO_2 Annual	2017	Maximum
Pacifico_2017_99SO2_C1_50KM_MED	SO_2 Annual	2017	Median
Pacifico_2017_99SO2_C1_50KM_MIN	SO_2 Annual	2017	Minimum
Pacifico_2018_99SO2_C1_50KM_MAX	SO_2 Annual	2018	Maximum
Pacifico_2018_99SO2_C1_50KM_MED	SO_2 Annual	2018	Median
Pacifico_2018_99SO2_C1_50KM_MIN	SO_2 Annual	2018	Minimum
Pacifico_2019_99SO2_C1_50KM_MAX	SO_2 Annual	2019	Maximum
Pacifico_2019_99SO2_C1_50KM_MED	SO_2 Annual	2019	Median
Pacifico_2019_99SO2_C1_50KM_MIN	SO_2 Annual	2019	Minimum
Pacifico_2020_99SO2_C1_50KM_MAX	SO_2 Annual	2020	Maximum

File Name	Pollutant & Averaging Time	Met Years	Receptor Elevation
Pacifico_2020_99SO2_C1_50KM_MED	SO_2 Annual	2020	Median
Pacifico_2020_99SO2_C1_50KM_MIN	SO_2 Annual	2020	Minimum
Pacifico_2021_99SO2_C1_50KM_MAX	SO_2 Annual	2021	Maximum
Pacifico_2021_99SO2_C1_50KM_MED	SO_2 Annual	2021	Median
Pacifico_2021_99SO2_C1_50KM_MIN	SO_2 Annual	2021	Minimum
Pacifico_2017-2021_PM10_C1_50KM_MAX	PM_{10} 24-hour	2017-2021	Maximum
Pacifico_2017-2021_PM10_C1_50KM_MED	PM_{10} 24-hour	2017-2021	Median
Pacifico_2017-2021_PM10_C1_50KM_MIN	PM_{10} 24-hour	2017-2021	Minimum
Pacifico_2017_99PM10_C1_50KM_MAX	PM_{10} Annual	2017	Maximum
Pacifico_2017_99PM10_C1_50KM_MED	PM_{10} Annual	2017	Median
Pacifico_2017_99PM10_C1_50KM_MIN	PM_{10} Annual	2017	Minimum
Pacifico_2018_99PM10_C1_50KM_MAX	PM_{10} Annual	2018	Maximum
Pacifico_2018_99PM10_C1_50KM_MED	PM_{10} Annual	2018	Median
Pacifico_2018_99PM10_C1_50KM_MIN	PM_{10} Annual	2018	Minimum
Pacifico_2019_99PM10_C1_50KM_MAX	PM_{10} Annual	2019	Maximum
Pacifico_2019_99PM10_C1_50KM_MED	PM_{10} Annual	2019	Median
Pacifico_2019_99PM10_C1_50KM_MIN	PM_{10} Annual	2019	Minimum
Pacifico_2020_99PM10_C1_50KM_MAX	PM_{10} Annual	2020	Maximum
Pacifico_2020_99PM10_C1_50KM_MED	PM_{10} Annual	2020	Median
Pacifico_2020_99PM10_C1_50KM_MIN	PM_{10} Annual	2020	Minimum
Pacifico_2021_99PM10_C1_50KM_MAX	PM_{10} Annual	2021	Maximum
Pacifico_2021_99PM10_C1_50KM_MED	PM_{10} Annual	2021	Median
Pacifico_2021_99PM10_C1_50KM_MIN	PM_{10} Annual	2021	Minimum
Pacifico_2017_PM2.5_C1_50KM_MAX	$PM_{2.5}$ 24-hour	2017	Maximum
Pacifico_2017_PM2.5_C1_50KM_MED	$PM_{2.5}$ 24-hour	2017	Median
Pacifico_2017_PM2.5_C1_50KM_MIN	$PM_{2.5}$ 24-hour	2017	Minimum
Pacifico_2018_PM2.5_C1_50KM_MAX	$PM_{2.5}$ 24-hour	2018	Maximum
Pacifico_2018_PM2.5_C1_50KM_MED	$PM_{2.5}$ 24-hour	2018	Median
Pacifico_2018_PM2.5_C1_50KM_MIN	$PM_{2.5}$ 24-hour	2018	Minimum
Pacifico_2019_PM2.5_C1_50KM_MAX	$PM_{2.5}$ 24-hour	2019	Maximum
Pacifico_2019_PM2.5_C1_50KM_MED	$PM_{2.5}$ 24-hour	2019	Median
Pacifico_2019_PM2.5_C1_50KM_MIN	$PM_{2.5}$ 24-hour	2019	Minimum

File Name	Pollutant & Averaging Time	Met Years	Receptor Elevation
Pacifico_2020_PM2.5_C1_50KM_MAX	$PM_{2.5}$ 24-hour	2020	Maximum
Pacifico_2020_PM2.5_C1_50KM_MED	$PM_{2.5}$ 24-hour	2020	Median
Pacifico_2020_PM2.5_C1_50KM_MIN	$PM_{2.5}$ 24-hour	2020	Minimum
Pacifico_2021_PM2.5_C1_50KM_MAX	$PM_{2.5}$ 24-hour	2021	Maximum
Pacifico_2021_PM2.5_C1_50KM_MED	$PM_{2.5}$ 24-hour	2021	Median
Pacifico_2021_PM2.5_C1_50KM_MIN	$PM_{2.5}$ 24-hour	2021	Minimum
Pacifico_2017_99PM2.5_C1_50KM_MAX	$PM_{2.5}$ Annual	2017	Maximum
Pacifico_2017_99PM2.5_C1_50KM_MED	$PM_{2.5}$ Annual	2017	Median
Pacifico_2017_99PM2.5_C1_50KM_MIN	$PM_{2.5}$ Annual	2017	Minimum
Pacifico_2018_99PM2.5_C1_50KM_MAX	$PM_{2.5}$ Annual	2018	Maximum
Pacifico_2018_99PM2.5_C1_50KM_MED	$PM_{2.5}$ Annual	2018	Median
Pacifico_2018_99PM2.5_C1_50KM_MIN	$PM_{2.5}$ Annual	2018	Minimum
Pacifico_2019_99PM2.5_C1_50KM_MAX	$PM_{2.5}$ Annual	2019	Maximum
Pacifico_2019_99PM2.5_C1_50KM_MED	$PM_{2.5}$ Annual	2019	Median
Pacifico_2019_99PM2.5_C1_50KM_MIN	$PM_{2.5}$ Annual	2019	Minimum
Pacifico_2020_99PM2.5_C1_50KM_MAX	$PM_{2.5}$ Annual	2020	Maximum
Pacifico_2020_99PM2.5_C1_50KM_MED	$PM_{2.5}$ Annual	2020	Median
Pacifico_2020_99PM2.5_C1_50KM_MIN	$PM_{2.5}$ Annual	2020	Minimum
Pacifico_2021_99PM2.5_C1_50KM_MAX	$PM_{2.5}$ Annual	2021	Maximum
Pacifico_2021_99PM2.5_C1_50KM_MED	$PM_{2.5}$ Annual	2021	Median
Pacifico_2021_99PM2.5_C1_50KM_MIN	$PM_{2.5}$ Annual	2021	Minimum

Table C-6 Model File Names – SIL Analysis for PSD Class I Increment at 160 km

File Name	Pollutant & Averaging Time	Met Years	Receptor Elevation
Pacifico_2017_PM2.5_C1_160KM_MAX	$PM_{2.5}$ 24-hour	2017	Maximum
Pacifico_2017_PM2.5_C1_160KM_MED	$PM_{2.5}$ 24-hour	2017	Median
Pacifico_2017_PM2.5_C1_160KM_MIN	$PM_{2.5}$ 24-hour	2017	Minimum
Pacifico_2018_PM2.5_C1_160KM_MAX	$PM_{2.5}$ 24-hour	2018	Maximum
Pacifico_2018_PM2.5_C1_160KM_MED	$PM_{2.5}$ 24-hour	2018	Median
Pacifico_2018_PM2.5_C1_160KM_MIN	$PM_{2.5}$ 24-hour	2018	Minimum
Pacifico_2019_PM2.5_C1_160KM_MAX	$PM_{2.5}$ 24-hour	2019	Maximum
Pacifico_2019_PM2.5_C1_160KM_MED	$PM_{2.5}$ 24-hour	2019	Median
Pacifico_2019_PM2.5_C1_160KM_MIN	$PM_{2.5}$ 24-hour	2019	Minimum
Pacifico_2020_PM2.5_C1_160KM_MAX	$PM_{2.5}$ 24-hour	2020	Maximum
Pacifico_2020_PM2.5_C1_160KM_MED	$PM_{2.5}$ 24-hour	2020	Median
Pacifico_2020_PM2.5_C1_160KM_MIN	$PM_{2.5}$ 24-hour	2020	Minimum
Pacifico_2021_PM2.5_C1_160KM_MAX	$PM_{2.5}$ 24-hour	2021	Maximum
Pacifico_2021_PM2.5_C1_160KM_MED	$PM_{2.5}$ 24-hour	2021	Median
Pacifico_2021_PM2.5_C1_160KM_MIN	$PM_{2.5}$ 24-hour	2021	Minimum

Table C-7 Site Downwash Files

File Name	File Extensions	Description
downwash	.PIP, .PRW, .SO, .SUM, and .TAB	Downwash input and output files

Attachment D
TCEQ Electronic Modeling Evaluation Workbook

Texas Commission on Environmental Quality

Electronic Modeling Evaluation Workbook (EMEW)

General

Date: 8/3/2025
Permit #: TBD
Company Name: Pacifico GW LLC

Acknowledgement:	Select from the dropdown:
I acknowledge that I am submitting an authorized TCEQ Electronic Modeling Evaluation Workbook and any necessary attachments. Except for inputting the requested data, I have not changed the TCEQ Electronic Modeling Evaluation Workbook in any way, including but not limited to changing formulas, formatting, content, or protections.	I agree

Administrative Information:	
Data Type:	**Facility Information:**
Project Number (6 digits):	
Permit Number(s):	TBD
Regulated Entity ID (9 digits):	
Facility Name:	GW Ranch Energy Center
Facility Address:	N/A
Facility County:	Pecos
Company Name:	Pacifico GW LLC
Company Contact Name:	Constantyn Gieskes
Company Contact Number:	(949) 481-8200
Company Contact Email:	constantyn@pacificoenergy.com
Modeling Company Name, as applicable:	TRC Environmental Corporation
Modeling Contact Name:	Chris Kossegi
Modeling Contact Number:	(512) 684-3414
Modeling Contact Email:	ckossegi@trccompanies.com
New/Existing Site:	New site
Initial modeling or final modeling submittal?	Initial modeling
Modeling files included with application submittal (optional)?	Yes
Modeling Date (MM/DD/YYYY or MM-DD-YYYY):	08/01/2025
Datum Used:	NAD 83
Universal Transverse Mercator (UTM) Zone:	13

Table of Contents:	
Section Instructions: Indicate in the Table of Contents which sections are applicable and included for this modeling demonstration. Select "X" from the dropdown if the item below is included in the workbook.	
Sheet Title (Click to jump to specific sheet):	**Select "X" from the dropdown if included:**
General	X
Model Options	X
Building Downwash	X
Flare Source Parameters	
Point Source Parameters	X
Area Source Parameters	X
Volume Source Calculations	
Volume Source Parameters	
Modeling Scenarios	X
Modeled Source Groups	

Texas Commission on Environmental Quality

Electronic Modeling Evaluation Workbook (EMEW)

General

Date: 8/3/2025
Permit #: TBD
Company Name: Pacifico GW LLC

Flare & Point Source Emissions	X
Area Source Emissions	X
Volume Source Emissions	
Intermittent Sources	
Speciated Chemicals	X
Speciated Emissions	X
Summary of Emissions	Sheet automatically generated
Monitor Calculations	
Background Justification	
Secondary Formation of PM2.5	
NAAQS/State Property Line (SPL) Modeling Results	X
Unit Impact Multipliers	
Health Effects Modeling Results	X
Modeling File Names	X

Texas Commission on Environmental Quality

Electronic Modeling Evaluation Workbook (EMEW)

General

Date: 8/3/2025
Permit #: TBD
Company Name: Pacifico GW LLC

Required Attachments:	
Notes: 1. The following are attachments that must be included with any modeling analysis. 2. If providing the plot plan and area map with the permit application, ensure there is also a copy with the EMEW. 3. For larger properties or dense source areas, provide multiple zoomed-in plot plans that are legible. 4. All plot plans and area maps should not be marked as confidential.	
Required Attachments	**Select "X" from the dropdown**
Is a Plot Plan attached? Make sure all property/fence lines are visible and marked, all modeled sources and buildings are clearly labeled, and a north arrow and clearly marked scale are included.	X
Is an Area Map attached? Include all property lines, annotate schools within 3,000 ft of the nearest property line, and identify all non-industrial receptors.	X

Additional Attachments (as applicable):	
Notes: 1. These are a few examples of attachments that may need to be included. There may be others depending on the scope of the modeling analysis. 2. Information provided in the EMEW does not need to be provided or duplicated in an additional or supplemental attachment. Additional and supplemental attachments are for information that cannot fit in an EMEW. 3. All essential supplemental and/or additional attachments should not be marked as confidential.	
Site Specific Processed Met Data Information	**Select "X" from the dropdown if included:**
Raw data files (ASOS, surface, and upper air).	
Pre-processor input and output files (AERMINUTE and AERSURFACE).	
AERMET input and output files (all stages).	
AERMOD/AERSCREEN ready files (surface and upper air).	
Modeling Techniques and Scenarios Provide all justification and discussion on modeling scenarios used for the modeling analyses. Below are examples of approaches that may be provided as justification.	**Select "X" from the dropdown if included:**
Discussion on modeling techniques not discussed in workbook.	
Justification for exceedance refinements, as applicable.	
Discussion and images for worst-case determination, as applicable.	
Single Property Line Designation (SPLD), as applicable	**Select "X" from the dropdown if included:**
Include the most recent agreement, order, and map defining each petitioner.	
Post Processing using Unit Impact Multipliers (UIMs)	**Select "X" from the dropdown if included:**

Include documentation on any calculations used with the UIMs (i.e., Step 3 of the Modeling and Effects Review Applicability [MERA] guidance). It is highly recommended to provide the UIM calculations in an Excel Spreadsheet format (do not lock cells or reference local drives).	
Tier 3 NO_2 analysis If OLM, PVMRM, or GRSM are used, provide all justification and documentation on using the approach. Note the use of the Tier 3 modeling option must be approved prior to the final modeling submittal.	**Select "X" from the dropdown if included:**
Description of model setup.	
Description and justification of model options selected (i.e., NO_X to NO_2 in-stack ratios).	
Raw monitoring data and any associated calculations in Excel spreadsheet format (do not lock cells or reference local drives).	
Other Attachments	**Select "X" from the dropdown if included:**
Replace this text with the title(s) of the additional attachment(s) being provided that are not listed above.	

Texas Commission on Environmental Quality

Electronic Modeling Evaluation Workbook (EMEW)

Model Options

Date: 8/3/2025
Permit #: TBD

Company Name: Pacifico GW LLC

I. Project Information	
A. Project Overview: Give a brief project overview. To type or insert text, double click in the cell (response limited to 2000 characters).	Construction of new simple cycle electric generating plant at a greenfield site.

II. Air Dispersion Modeling Preliminary Information

Instructions: Fill in the information below based on the modeling setup. The selections chosen in this sheet will carry throughout the sheet and workbook. Based on selections below, only portions of the sheet and workbook will be available. Therefore, it is vital the sheet and workbook are filled out in order. Do not skip around.

For larger text boxes, double click to type or insert text.

A. Type of Model Used:

Type	Select "X" in all that apply
AERMOD	X
AERSCREEN	
Enter in all applicable Model Version(s)	24142

B. Building Downwash:

Requested Information	Response
Is building downwash applicable? Select "Yes" if a volume source will be located on or adjacent to a structure.	Yes
Enter BPIP version (AERMOD and ISCPrime only)	4274

C. Type of Analyses:

Type	Select "X" in all that apply
Minor NSR National Ambient Air Quality Standards (NAAQS)	
Health Effects	X
State Property Line	X
*PSD projects should submit a protocol or AQA report and not utilize this form.	-

D. Constituents Evaluating:

Texas Commission on Environmental Quality

Electronic Modeling Evaluation Workbook (EMEW)

Model Options

Date: 8/3/2025
Permit #: TBD
Company Name: Pacifico GW LLC

State Property Line Pollutants	Select "X" for all pollutants that apply
H_2S	X
H_2SO_4	X
SO_2	X

Health Effects: Fill in the Speciated Emissions sheet with all applicable pollutants, CAS numbers, and ESLs.

Texas Commission on Environmental Quality

Electronic Modeling Evaluation Workbook (EMEW)

Model Options

Date: 8/3/2025
Permit #: TBD

Company Name: Pacifico GW LLC

E. Dispersion Options:	
Requested information	**Response**
Select a dispersion option:	Rural
Provide justification on the dispersion option selected above (response limited to 500 characters).	Not located in an urban area.

F. Determination of Surface Roughness: If AERSCREEN or AERMOD is used, fill out the section below.	
Requested information	**Response**
Select basis for surface roughness:	AERSURFACE
If the applicant is using AERSURFACE, complete this section	**Response**
AERSURFACE Version Number	24142
Center UTM Easting (m)	700000
Center UTM Northing (m)	3452000
National Land Cover Database (NLCD) Land Cover (year)	2021
NLCD Impervious Surface (year) Land Cover data should not be supplemented with Impervious Surface data only or Tree Canopy data only, or with inconsistent years of data.	2021
NLCD Tree Canopy (year) Land Cover data should not be supplemented with Impervious Surface data only or Tree Canopy data only, or with inconsistent years of data.	2021
Study Radius (km)	1
Airport?	No
Continuous Snow Cover	No
Surface Moisture	Average
Arid Region?	No
Month/Season Assignment	Default
Surface Roughness Length [Z_o] (m)	0.26

Texas Commission on Environmental Quality

Electronic Modeling Evaluation Workbook (EMEW)

Model Options

Date: 8/3/2025
Permit #: TBD

Company Name: Pacifico GW LLC

G. Meteorological Data:	
If AERMOD or ISC/ISCPrime are selected, complete this section	**Response**
Surface Station (4-5 digits)	23091
Upper Air Station (4-5 digits)	22010
Profile Base Elevation, AERMOD only (m)	917
AERMET Version Number	22112
Was TCEQ pre-processed data used?	Yes
Select the TCEQ pre-processed data surface roughness category:	Medium
Enter the year(s) selected for this meteorological data	**Response**
1 Year (yyyy)	2020
5 Years	N/A
Which analysis(es) relied on 1 year?	State Property Line and State Health Effects
Which analysis(es) relied on 5 years?	N/A
Provide any other justification for section G. Meteorological Data, as applicable (response limited to 500 characters). Additional information can be provided as an attachment to the EMEW.	TCEQ's "medium" dataset was used as AERSURFACE provided a surface roughness value of 0.260.

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Model Options

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Company Name: Pacifico GW LLC

H. Receptor Grid:

For AERMOD or ISC/ISCPrime, fill in the following information on the modeled receptor grid. Note: Receptor grid resolution (tight, fine, medium, coarse) are based on recommended receptor grid spacing per the AQMG. If something outside of this is used, fully describe it below. Also, consider secondary contributions when determining significant receptors for $PM_{2.5}$. See Note 2 on the Secondary Formation of $PM_{2.5}$ sheet for more information.

Parameter	Value
Tight Receptor Spacing (m) (Per Appendix M of the AQMG, 25 meter spacing is recommended for tight receptor spacing.)	25 m
Tight Receptor Distance (m) (Per Appendix M of the AQMG, tight receptor spacing could extend up to 200-300 meters from the sources being evaluated.)	300 m (see note below)
Fine Receptor Spacing (m) (Per Appendix M of the AQMG, 100 meter spacing is recommended for fine receptor spacing.)	100 m
Fine Receptor Distance (m) (Per Appendix M of the AQMG, fine receptors could extend one kilometer from the sources being evaluated.)	1 km
Medium Receptor Spacing (m) (Per Appendix M of the AQMG, 500 meter spacing is recommended for medium receptor spacing, as applicable.)	500 m
Medium Receptor Distance (m) (Per Appendix M of the AQMG, medium receptors could extend from one to five kilometers from the sources being evaluated.)	5 km
Coarse Receptor Spacing (m) (Per Appendix M of the AQMG, 1 kilometer spacing is recommended for coarse receptor spacing, as applicable.)	1,000 m
Coarse Receptor Distance (m) (Per Appendix M of the AQMG, course receptors could extend out to 50 km, as needed.)	50 km
Describe any other receptor grid designs or locations of interest (e.g., significant receptors, over water, GLCni, SPLD, etc.) (response limited to 1500 characters).	Note: Due to the size of the facility and distance from the sources to the fence line, the tight receptor grid (receptors spaced every 25 m, extending out to 300 m) was generated only in areas closest to the sources. Receptors were still placed every 25 m along entire the fence line. Pacifico believes that the receptor grid as described above is sufficient to capture the maximum predicted concentrations.

I. Terrain:

Requested Information	Response
Select the terrain option being modeled:	Elevated
AERMAP Version	24142
Provide additional justification for the selected terrain option, if applicable (response limited to 500 characters).	

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Electronic Modeling Evaluation Workbook (EMEW)

Building Downwash

Date: 8/3/2025
Permit #: TBD
Company Name: Pacifico GW LLC

Downwash Type	Modeled Building ID	Tank Diameter (m)	Number of Tiers	Maximum Height (m)	Tier 1 Height (m)
Building	DATA01		1	9.144	9.14
Building	DATA02		1	9.144	9.14
Building	DATA03		1	9.144	9.14
Building	DATA04		1	9.144	9.14
Building	DATA05		1	9.144	9.14
Building	DATA06		1	9.144	9.14
Building	DATA07		1	9.144	9.14
Building	DATA08		1	9.144	9.14
Building	DATA09		1	9.144	9.14
Building	DATA10		1	9.144	9.14
Building	DATA11		1	9.144	9.14
Building	DATA12		1	9.144	9.14
Building	DATA13		1	9.144	9.14
Building	DATA14		1	9.144	9.14
Building	DATA15		1	9.144	9.14
Building	DATA16		1	9.144	9.14
Building	DATA17		1	9.144	9.14
Building	DATA18		1	9.144	9.14
Building	DATA19		1	9.144	9.14
Building	DATA20		1	9.144	9.14
Building	DATA21		1	9.144	9.14
Building	DATA22		1	9.144	9.14
Building	DATA23		1	9.144	9.14
Building	DATA24		1	9.144	9.14
Building	DATA25		1	9.144	9.14
Building	TURB01A		1	10.668	10.67
Building	TURB02A		1	10.668	10.67
Building	TURB03A		1	10.668	10.67
Building	TURB04A		1	10.668	10.67
Building	TURB05A		1	10.668	10.67
Building	TURB06A		1	10.668	10.67
Building	TURB07A		1	10.668	10.67
Building	TURB08A		1	10.668	10.67
Building	TURB09A		1	10.668	10.67
Building	TURB10A		1	10.668	10.67

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Electronic Modeling Evaluation Workbook (EMEW)

Building Downwash

Date: 8/3/2025
Permit #: TBD
Company Name: Pacifico GW LLC

Downwash Type	Modeled Building ID	Tank Diameter (m)	Number of Tiers	Maximum Height (m)	Tier 1 Height (m)
Building	TURB11A		1	10.668	10.67
Building	TURB12A		1	10.668	10.67
Building	TURB13A		1	10.668	10.67
Building	TURB14A		1	10.668	10.67
Building	TURB15A		1	10.668	10.67

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Electronic Modeling Evaluation Workbook (EMEW)

Building Downwash

Date: 8/3/2025
Permit #: TBD
Company Name: Pacifico GW LLC

Downwash Type	Modeled Building ID	Tank Diameter (m)	Number of Tiers	Maximum Height (m)	Tier 1 Height (m)
Building	TURB16A		1	10.668	10.67
Building	TURB17A		1	10.668	10.67
Building	TURB18A		1	10.668	10.67
Building	TURB19A		1	10.668	10.67
Building	TURB20A		1	10.668	10.67
Building	TURB21A		1	10.668	10.67
Building	TURB01B		1	12.192	12.19
Building	TURB02B		1	12.192	12.19
Building	TURB03B		1	12.192	12.19
Building	TURB04B		1	12.192	12.19
Building	TURB05B		1	12.192	12.19
Building	TURB06B		1	12.192	12.19
Building	TURB07B		1	12.192	12.19
Building	TURB08B		1	12.192	12.19
Building	TURB09B		1	12.192	12.19
Building	TURB10B		1	12.192	12.19
Building	TURB11B		1	12.192	12.19
Building	TURB12B		1	12.192	12.19
Building	TURB13B		1	12.192	12.19
Building	TURB14B		1	12.192	12.19
Building	ENGSUP1		1	6.2484	6.25
Building	ENGSUP2		1	6.2484	6.25
Building	COOL01		1	4.8006	4.80
Building	COOL02		1	4.8006	4.80
Building	COOL03		1	4.8006	4.80
Building	COOL04		1	4.8006	4.80
Building	COOL05		1	4.8006	4.80
Building	COOL06		1	6.6294	6.63
Building	COOL07		1	6.6294	6.63
Building	COOL08		1	6.6294	6.63
Building	COOL09		1	6.6294	6.63
Building	COOL10		1	6.6294	6.63
Building	COOL11		1	6.6294	6.63
Building	COOL12		1	6.6294	6.63
Building	COOL13		1	6.6294	6.63

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Electronic Modeling Evaluation Workbook (EMEW)

Building Downwash

Date: 8/3/2025
Permit #: TBD
Company Name: Pacifico GW LLC

Downwash Type	Modeled Building ID	Tank Diameter (m)	Number of Tiers	Maximum Height (m)	Tier 1 Height (m)
Building	COOL14		1	6.6294	6.63
Building	COOL15		1	6.6294	6.63
Building	COOL16		1	6.6294	6.63
Building	COOL17		1	6.6294	6.63
Building	COOL18		1	6.6294	6.63
Building	COOL19		1	6.6294	6.63
Building	EDG01		1	5.2781	5.28
Building	EDG02		1	5.2781	5.28
Building	EDG03		1	5.2781	5.28
Building	EDG04		1	5.2781	5.28

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Building Downwash

Date: 8/3/2025
Permit #: TBD
Company Name: Pacifico GW LLC

Downwash Type	Modeled Building ID	Tank Diameter (m)	Number of Tiers	Maximum Height (m)	Tier 1 Height (m)
Building	EDG05		1	5.2781	5.28
Building	EDG06		1	5.2781	5.28
Building	EDG07		1	5.2781	5.28
Building	EDG08		1	5.2781	5.28
Building	EDG09		1	5.2781	5.28
Building	EDG10		1	5.2781	5.28
Building	EDG11		1	5.2781	5.28
Building	EDG12		1	5.2781	5.28
Building	EDG13		1	5.2781	5.28
Building	EDG14		1	5.2781	5.28
Building	EDG15		1	5.2781	5.28
Tank	TKGT01	18.29	1	7.9248	7.92
Tank	TKFIRE01	15.24	1	6.096	6.10
Tank	TKSERV01	22.86	1	9.144	9.14
Tank	TKGT02	18.29	1	7.9248	7.92
Tank	TKFIRE02	15.24	1	6.096	6.10
Tank	TKSERV02	22.86	1	9.144	9.14
Tank	TNKDSL1	3.66	1	9.144	9.14
Tank	TNKDSL2	3.66	1	9.144	9.14
Tank	TNKDSL3	3.66	1	9.144	9.14
Tank	TNKDSL4	3.66	1	9.144	9.14
Tank	TNKDSL5	3.60	1	4.9987	5.00
Tank	TNKDSL6	3.60	1	4.9987	5.00
Tank	TNKDSL7	3.60	1	4.9987	5.00

Texas Commission on Environmental Quality

Electronic Modeling Evaluation Workbook (EMEW)

Point Source Parameters

Date: 8/3/2025
Permit #: TBD

Company Name: Pacifico GW LLC

EPN	Model ID	Modeling Scenario	Source Description	Point Source Type	Point Source Justification	Pseudo Point Release Height Justification	Easting: X (m)	Northing: Y (m)	Base Elevation (m)	Height (m)	Exit Temperature (K)	Exit Velocity (m/s)	Diameter (m)
CT-1A	CT_01A	All	Siemens SGT-800 Turbine 1	POINT	Vertical stack		700570.72	3451977.09	772.56	30.48	727.59	22.759	3.658
CT-2A	CT_02A	All	Siemens SGT-800 Turbine 2	POINT	Vertical stack		700566.11	3451948.49	772.67	30.48	727.59	22.759	3.658
CT-3A	CT_03A	All	Siemens SGT-800 Turbine 3	POINT	Vertical stack		700561.50	3451919.90	772.78	30.48	727.59	22.759	3.658
CT-4A	CT_04A	All	Siemens SGT-800 Turbine 4	POINT	Vertical stack		700556.88	3451891.31	772.88	30.48	727.59	22.759	3.658
CT-5A	CT_05A	All	Siemens SGT-800 Turbine 5	POINT	Vertical stack		700552.27	3451862.72	772.98	30.48	727.59	22.759	3.658
CT-6A	CT_06A	All	Siemens SGT-800 Turbine 6	POINT	Vertical stack		700547.66	3451834.12	773.06	30.48	727.59	22.759	3.658
CT-7A	CT_07A	All	Siemens SGT-800 Turbine 7	POINT	Vertical stack		700543.04	3451805.53	773.14	30.48	727.59	22.759	3.658
CT-8A	CT_08A	All	Siemens SGT-800 Turbine 8	POINT	Vertical stack		700538.43	3451776.94	773.24	30.48	727.59	22.759	3.658
CT-9A	CT_09A	All	Siemens SGT-800 Turbine 9	POINT	Vertical stack		700533.82	3451748.35	773.33	30.48	727.59	22.759	3.658
CT-10A	CT_10A	All	Siemens SGT-800 Turbine 10	POINT	Vertical stack		700529.21	3451719.76	773.43	30.48	727.59	22.759	3.658
CT-11A	CT_11A	All	Siemens SGT-800 Turbine 11	POINT	Vertical stack		700524.59	3451691.16	773.51	30.48	727.59	22.759	3.658
CT-12A	CT_12A	All	Siemens SGT-800 Turbine 12	POINT	Vertical stack		700519.98	3451662.57	773.60	30.48	727.59	22.759	3.658
CT-13A	CT_13A	All	Siemens SGT-800 Turbine 13	POINT	Vertical stack		700507.60	3451585.82	773.86	30.48	727.59	22.759	3.658
CT-14A	CT_14A	All	Siemens SGT-800 Turbine 14	POINT	Vertical stack		700502.99	3451557.23	773.96	30.48	727.59	22.759	3.658
CT-15A	CT_15A	All	Siemens SGT-800 Turbine 15	POINT	Vertical stack		700498.37	3451528.64	774.06	30.48	727.59	22.759	3.658
CT-16A	CT_16A	All	Siemens SGT-800 Turbine 16	POINT	Vertical stack		700493.76	3451500.04	774.17	30.48	727.59	22.759	3.658
CT-17A	CT_17A	All	Siemens SGT-800 Turbine 17	POINT	Vertical stack		700489.14	3451471.45	774.26	30.48	727.59	22.759	3.658
CT-18A	CT_18A	All	Siemens SGT-800 Turbine 18	POINT	Vertical stack		700484.53	3451442.86	774.36	30.48	727.59	22.759	3.658
CT-19A	CT_19A	All	Siemens SGT-800 Turbine 19	POINT	Vertical stack		700479.92	3451414.27	774.44	30.48	727.59	22.759	3.658
CT-20A	CT_20A	All	Siemens SGT-800 Turbine 20	POINT	Vertical stack		700475.31	3451385.68	774.53	30.48	727.59	22.759	3.658
CT-21A	CT_21A	All	Siemens SGT-800 Turbine 21	POINT	Vertical stack		700470.69	3451357.08	774.63	30.48	727.59	22.759	3.658
CT-1B	CT_01B	All	Large-Frame Combustion Turbine 1	POINT	Vertical stack		700364.71	3451157.96	775.58	60.96	727.59	21.458	9.144
CT-2B	CT_02B	All	Large-Frame Combustion Turbine 2	POINT	Vertical stack		700351.35	3451075.19	775.83	60.96	727.59	21.458	9.144
CT-3B	CT_03B	All	Large-Frame Combustion Turbine 3	POINT	Vertical stack		700325.86	3450917.18	776.24	60.96	727.59	21.458	9.144
CT-4B	CT_04B	All	Large-Frame Combustion Turbine 4	POINT	Vertical stack		700312.50	3450834.42	776.49	60.96	727.59	21.458	9.144
CT-5B	CT_05B	All	Large-Frame Combustion Turbine 5	POINT	Vertical stack		700287.01	3450676.40	777.14	60.96	727.59	21.458	9.144
CT-6B	CT_06B	All	Large-Frame Combustion Turbine 6	POINT	Vertical stack		700273.66	3450593.63	777.52	60.96	727.59	21.458	9.144
CT-7B	CT_07B	All	Large-Frame Combustion Turbine 7	POINT	Vertical stack		700248.16	3450435.62	778.70	60.96	727.59	21.458	9.144
CT-8B	CT_08B	All	Large-Frame Combustion Turbine 8	POINT	Vertical stack		700234.81	3450352.86	779.03	60.96	727.59	21.458	9.144
CT-9B	CT_09B	All	Large-Frame Combustion Turbine 9	POINT	Vertical stack		700209.31	3450194.85	780.01	60.96	727.59	21.458	9.144
CT-10B	CT_10B	All	Large-Frame Combustion Turbine 10	POINT	Vertical stack		700195.96	3450112.08	780.43	60.96	727.59	21.458	9.144
CT-11B	CT_11B	All	Large-Frame Combustion Turbine 11	POINT	Vertical stack		700170.46	3449954.07	781.11	60.96	727.59	21.458	9.144
CT-12B	CT_12B	All	Large-Frame Combustion Turbine 12	POINT	Vertical stack		700157.11	3449871.30	781.33	60.96	727.59	21.458	9.144
CT-13B	CT_13B	All	Large-Frame Combustion Turbine 13	POINT	Vertical stack		700131.61	3449713.29	781.77	60.96	727.59	21.458	9.144
CT-14B	CT_14B	All	Large-Frame Combustion Turbine 14	POINT	Vertical stack		700118.26	3449630.53	782.00	60.96	727.59	21.458	9.144
DPHEAT1	DPHT_01	All	Dewpoint Heater 1	POINT	Vertical stack		700742.70	3451059.50	775.13	7.62	679.26	6.338	0.660
DPHEAT2	DPHT_02	All	Dewpoint Heater 2	POINT	Vertical stack		700741.58	3451052.58	775.16	7.62	679.26	6.338	0.660
DPHEAT3	DPHT_03	All	Dewpoint Heater 3	POINT	Vertical stack		700740.47	3451045.65	775.18	7.62	679.26	6.338	0.660
DPHEAT4	DPHT_04	All	Dewpoint Heater 4	POINT	Vertical stack		700739.35	3451038.73	775.20	7.62	679.26	6.338	0.660
DPHEAT5	DPHT_05	All	Dewpoint Heater 5	POINT	Vertical stack		700738.23	3451031.81	775.22	7.62	679.26	6.338	0.660
DPHEAT6	DPHT_06	All	Dewpoint Heater 6	POINT	Vertical stack		700726.68	3450960.18	775.40	7.62	679.26	6.338	0.660
DPHEAT7	DPHT_07	All	Dewpoint Heater 7	POINT	Vertical stack		700725.56	3450953.25	775.42	7.62	679.26	6.338	0.660
DPHEAT8	DPHT_08	All	Dewpoint Heater 8	POINT	Vertical stack		700724.44	3450946.33	775.44	7.62	679.26	6.338	0.660
DPHEAT9	DPHT_09	All	Dewpoint Heater 9	POINT	Vertical stack		700723.32	3450939.41	775.46	7.62	679.26	6.338	0.660
DPHEAT10	DPHT_10	All	Dewpoint Heater 10	POINT	Vertical stack		700722.21	3450932.49	775.48	7.62	679.26	6.338	0.660
DPHEAT11	DPHT_11	All	Dewpoint Heater 11	POINT	Vertical stack		700710.65	3450860.85	775.73	7.62	679.26	6.338	0.660
DPHEAT12	DPHT_12	All	Dewpoint Heater 12	POINT	Vertical stack		700709.53	3450853.93	775.75	7.62	679.26	6.338	0.660
DPHEAT13	DPHT_13	All	Dewpoint Heater 13	POINT	Vertical stack		700708.42	3450847.01	775.78	7.62	679.26	6.338	0.660
DPHEAT14	DPHT_14	All	Dewpoint Heater 14	POINT	Vertical stack		700694.62	3450761.53	776.09	7.62	679.26	6.338	0.660
DPHEAT15	DPHT_15	All	Dewpoint Heater 15	POINT	Vertical stack		700693.51	3450754.61	776.12	7.62	679.26	6.338	0.660
DPHEAT16	DPHT_16	All	Dewpoint Heater 16	POINT	Vertical stack		700692.39	3450747.69	776.15	7.62	679.26	6.338	0.660
DPHEAT17	DPHT_17	All	Dewpoint Heater 17	POINT	Vertical stack		700678.60	3450662.21	776.45	7.62	679.26	6.338	0.660
DPHEAT18	DPHT_18	All	Dewpoint Heater 18	POINT	Vertical stack		700677.48	3450655.29	776.47	7.62	679.26	6.338	0.660
DPHEAT19	DPHT_19	All	Dewpoint Heater 19	POINT	Vertical stack		700676.37	3450648.37	776.49	7.62	679.26	6.338	0.660
FPUMP1	FPUMP1	All	Firewater Pump 1	POINT	Vertical stack		700582.24	3451587.21	773.67	3.05	789.26	36.221	0.152
FPUMP2	FPUMP2	All	Firewater Pump 2	POINT	Vertical stack		700431.20	3451281.67	774.99	3.05	789.26	36.221	0.152
EGEN1	EGEN01	All	Emergency Engine 1	POINT	Vertical stack		700596.01	3451885.00	772.77	7.92	713.71	31.180	0.660
EGEN2	EGEN02	All	Emergency Engine 2	POINT	Vertical stack		700606.55	3451883.30	772.74	7.92	713.71	31.180	0.660
EGEN3	EGEN03	All	Emergency Engine 3	POINT	Vertical stack		700617.08	3451881.60	772.71	7.92	713.71	31.180	0.660
EGEN4	EGEN04	All	Emergency Engine 4	POINT	Vertical stack		700627.61	3451879.90	772.69	7.92	713.71	31.180	0.660
EGEN5	EGEN05	All	Emergency Engine 5	POINT	Vertical stack		700638.15	3451878.20	772.66	7.92	713.71	31.180	0.660
EGEN6	EGEN06	All	Emergency Engine 6	POINT	Vertical stack		700648.68	3451876.50	772.64	7.92	713.71	31.180	0.660
EGEN7	EGEN07	All	Emergency Engine 7	POINT	Vertical stack		700659.22	3451874.80	772.62	7.92	713.71	31.180	0.660
EGEN8	EGEN08	All	Emergency Engine 8	POINT	Vertical stack		700669.75	3451873.10	772.62	7.92	713.71	31.180	0.660
EGEN9	EGEN09	All	Emergency Engine 9	POINT	Vertical stack		700294.63	3451143.99	775.83	7.92	713.71	31.180	0.660
EGEN10	EGEN10	All	Emergency Engine 10	POINT	Vertical stack		700281.28	3451061.22	776.07	7.92	713.71	31.180	0.660
EGEN11	EGEN11	All	Emergency Engine 11	POINT	Vertical stack		700255.78	3450903.21	776.48	7.92	713.71	31.180	0.660
EGEN12	EGEN12	All	Emergency Engine 12	POINT	Vertical stack		700242.43	3450820.44	776.67	7.92	713.71	31.180	0.660
EGEN13	EGEN13	All	Emergency Engine 13	POINT	Vertical stack		700164.73	3450338.89	779.89	7.92	713.71	31.180	0.660
EGEN14	EGEN14	All	Emergency Engine 14	POINT	Vertical stack		700125.88	3450098.11	781.09	7.92	713.71	31.180	0.660
EGEN15	EGEN15	All	Emergency Engine 15	POINT	Vertical stack		700048.18	3449616.56	782.24	7.92	713.71	31.180	0.660
ENGINE-1	ENGINE1	All	Supplemental Engine Generator 1	POINT	Vertical stack		700499.14	3451291.75	774.73	18.29	646.48	28.210	1.600
ENGINE-2	ENGINE2	All	Supplemental Engine Generator 2	POINT	Vertical stack		700498.00	3451284.65	774.76	18.29	646.48	28.210	1.600
CO-1	CO_01	All	Wet Surface Air Cooler (WSAC) 1	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700588.66	3451806.43	772.99	6.63	0.00	0.001	0.001
CO-2	CO_02	All	Wet Surface Air Cooler (WSAC) 2	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700613.02	3451802.50	772.93	6.63	0.00	0.001	0.001
CO-3	CO_03	All	Wet Surface Air Cooler (WSAC) 3	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700637.37	3451798.57	772.85	6.63	0.00	0.001	0.001
CO-4	CO_04	All	Wet Surface Air Cooler (WSAC) 4	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700661.72	3451794.64	772.84	6.63	0.00	0.001	0.001
CO-5	CO_05	All	Wet Surface Air Cooler (WSAC) 5	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700686.08	3451790.71	772.90	6.63	0.00	0.001	0.001
CO-6	CO_06	All	Wet Surface Air Cooler (WSAC) 6	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700448.75	3450975.25	775.79	8.46	0.00	0.001	0.001
CO-7	CO_07	All	Wet Surface Air Cooler (WSAC) 7	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700466.81	3450972.34	775.75	8.46	0.00	0.001	0.001
CO-8	CO_08	All	Wet Surface Air Cooler (WSAC) 8	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700409.90	3450734.48	776.56	8.46	0.00	0.001	0.001
CO-9	CO_09	All	Wet Surface Air Cooler (WSAC) 9	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700427.96	3450731.56	776.53	8.46	0.00	0.001	0.001

Texas Commission on Environmental Quality

Electronic Modeling Evaluation Workbook (EMEW)

Point Source Parameters

Date: 8/3/2025
Permit #: TBD

Company Name: Pacifico GW LLC

EPN	Model ID	Modeling Scenario	Source Description	Point Source Type	Point Source Justification	Pseudo Point Release Height Justification	Easting: X (m)	Northing: Y (m)	Base Elevation (m)	Height (m)	Exit Temperature (K)	Exit Velocity (m/s)	Diameter (m)
CO-10	CO_10	All	Wet Surface Air Cooler (WSAC) 10	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700371.05	3450493.70	777.70	8.46	0.00	0.001	0.001
CO-11	CO_11	All	Wet Surface Air Cooler (WSAC) 11	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700389.11	3450490.79	777.65	8.46	0.00	0.001	0.001
CO-12	CO_12	All	Wet Surface Air Cooler (WSAC) 12	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700332.20	3450252.92	778.96	8.46	0.00	0.001	0.001
CO-13	CO_13	All	Wet Surface Air Cooler (WSAC) 13	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700350.26	3450250.00	778.84	8.46	0.00	0.001	0.001
CO-14	CO_14	All	Wet Surface Air Cooler (WSAC) 14	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700293.35	3450012.14	780.18	8.46	0.00	0.001	0.001
CO-15	CO_15	All	Wet Surface Air Cooler (WSAC) 15	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700311.41	3450009.23	780.10	8.46	0.00	0.001	0.001
CO-16	CO_16	All	Wet Surface Air Cooler (WSAC) 16	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700254.50	3449771.36	781.13	8.46	0.00	0.001	0.001
CO-17	CO_17	All	Wet Surface Air Cooler (WSAC) 17	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700272.56	3449768.45	781.05	8.46	0.00	0.001	0.001
CO-18	CO_18	All	Wet Surface Air Cooler (WSAC) 18	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700215.65	3449530.59	781.87	8.46	0.00	0.001	0.001
CO-19	CO_19	All	Wet Surface Air Cooler (WSAC) 19	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700233.71	3449527.67	781.81	8.46	0.00	0.001	0.001
OILVENT1	LOV_01A	All	Lube Oil Vent 1	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700552.47	3451977.51	772.62	7.62	0.00	0.001	0.001
OILVENT2	LOV_02A	All	Lube Oil Vent 2	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700546.26	3451949.63	772.73	7.62	0.00	0.001	0.001
OILVENT3	LOV_03A	All	Lube Oil Vent 3	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700540.24	3451920.96	772.85	7.62	0.00	0.001	0.001
OILVENT4	LOV_04A	All	Lube Oil Vent 4	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700535.63	3451893.09	772.95	7.62	0.00	0.001	0.001
OILVENT5	LOV_05A	All	Lube Oil Vent 5	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700531.62	3451864.61	773.05	7.62	0.00	0.001	0.001
OILVENT6	LOV_06A	All	Lube Oil Vent 6	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700527.32	3451835.31	773.13	7.62	0.00	0.001	0.001
OILVENT7	LOV_07A	All	Lube Oil Vent 7	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700523.56	3451807.33	773.21	7.62	0.00	0.001	0.001
OILVENT8	LOV_08A	All	Lube Oil Vent 8	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700518.97	3451778.52	773.30	7.62	0.00	0.001	0.001
OILVENT9	LOV_09A	All	Lube Oil Vent 9	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700514.93	3451750.54	773.38	7.62	0.00	0.001	0.001
OILVENT10	LOV_10A	All	Lube Oil Vent 10	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700510.30	3451721.20	773.48	7.62	0.00	0.001	0.001
OILVENT11	LOV_11A	All	Lube Oil Vent 11	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700505.87	3451693.42	773.56	7.62	0.00	0.001	0.001
OILVENT12	LOV_12A	All	Lube Oil Vent 12	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700500.84	3451664.74	773.64	7.62	0.00	0.001	0.001
OILVENT13	LOV_13A	All	Lube Oil Vent 13	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700487.50	3451587.58	773.90	7.62	0.00	0.001	0.001
OILVENT14	LOV_14A	All	Lube Oil Vent 14	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700484.20	3451558.63	774.00	7.62	0.00	0.001	0.001
OILVENT15	LOV_15A	All	Lube Oil Vent 15	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700478.85	3451530.15	774.11	7.62	0.00	0.001	0.001
OILVENT16	LOV_16A	All	Lube Oil Vent 16	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700474.13	3451501.68	774.21	7.62	0.00	0.001	0.001
OILVENT17	LOV_17A	All	Lube Oil Vent 17	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700468.94	3451473.36	774.31	7.62	0.00	0.001	0.001
OILVENT18	LOV_18A	All	Lube Oil Vent 18	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700465.16	3451444.26	774.40	7.62	0.00	0.001	0.001
OILVENT19	LOV_19A	All	Lube Oil Vent 19	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700459.66	3451416.73	774.49	7.62	0.00	0.001	0.001
OILVENT20	LOV_20A	All	Lube Oil Vent 20	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700454.31	3451387.94	774.59	7.62	0.00	0.001	0.001
OILVENT21	LOV_21A	All	Lube Oil Vent 21	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700448.65	3451358.84	774.69	7.62	0.00	0.001	0.001
OILVENT22	LOV_01B	All	Lube Oil Vent 22	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700338.85	3451104.42	775.80	7.62	0.00	0.001	0.001
OILVENT23	LOV_02B	All	Lube Oil Vent 23	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700322.66	3451019.98	776.03	7.62	0.00	0.001	0.001
OILVENT24	LOV_03B	All	Lube Oil Vent 24	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700299.05	3450862.35	776.45	7.62	0.00	0.001	0.001
OILVENT25	LOV_04B	All	Lube Oil Vent 25	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700283.54	3450776.64	776.71	7.62	0.00	0.001	0.001
OILVENT26	LOV_05B	All	Lube Oil Vent 26	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700259.36	3450619.48	777.49	7.62	0.00	0.001	0.001
OILVENT27	LOV_06B	All	Lube Oil Vent 27	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700245.00	3450539.55	778.06	7.62	0.00	0.001	0.001
OILVENT28	LOV_07B	All	Lube Oil Vent 28	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700217.56	3450381.00	779.03	7.62	0.00	0.001	0.001
OILVENT29	LOV_08B	All	Lube Oil Vent 29	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700199.87	3450295.38	779.80	7.62	0.00	0.001	0.001
OILVENT30	LOV_09B	All	Lube Oil Vent 30	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700177.64	3450139.03	780.49	7.62	0.00	0.001	0.001
OILVENT31	LOV_10B	All	Lube Oil Vent 31	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700160.38	3450055.97	780.93	7.62	0.00	0.001	0.001
OILVENT32	LOV_11B	All	Lube Oil Vent 32	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700136.41	3449897.60	781.36	7.62	0.00	0.001	0.001
OILVENT33	LOV_12B	All	Lube Oil Vent 33	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700120.79	3449814.02	781.55	7.62	0.00	0.001	0.001
OILVENT34	LOV_13B	All	Lube Oil Vent 34	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700093.49	3449656.06	782.05	7.62	0.00	0.001	0.001
OILVENT35	LOV_14B	All	Lube Oil Vent 35	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700077.96	3449574.95	782.27	7.62	0.00	0.001	0.001
TNK-DSL1	TNK_DSL1	All	Diesel Tank 1	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700599.00	3451855.00	772.84	9.14	0.00	0.001	0.001
TNK-DSL2	TNK_DSL2	All	Diesel Tank 2	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700599.00	3451848.00	772.86	9.14	0.00	0.001	0.001
TNK-DSL3	TNK_DSL3	All	Diesel Tank 3	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700599.00	3451843.00	772.88	9.14	0.00	0.001	0.001
TNK-DSL4	TNK_DSL4	All	Diesel Tank 4	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700628.00	3451258.00	774.54	9.14	0.00	0.001	0.001
TNK-DSL5	TNK_DSL5	All	Diesel Tank 5	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700628.00	3451254.00	774.55	5.00	0.00	0.001	0.001
TNK-DSL6	TNK_DSL6	All	Diesel Tank 6	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700627.00	3451247.00	774.58	5.00	0.00	0.001	0.001
TNK-DSL7	TNK_DSL7	All	Diesel Tank 7	POINT (Pseudo)	Modeled as pseudo-point	Actual height of	700626.00	3451241.00	774.60	5.00	0.00	0.001	0.001

Texas Commission on Environmental Quality

Electronic Modeling Evaluation Workbook (EMEW)

Area Source Parameters

Date: 8/3/2025
Permit #: TBD

Company Name: Pacifico GW LLC

EPN	Model ID	Modeling Scenario	Area Source Type	Easting: X (m)	Northing: Y (m)	Base Elevation (m)	Modeled Release Height (m)	Length X (m)	Length Y (m)
NGFUG	NGFUG	All	AREA	700742.39	3450832.29	775.80	1.00	1.00	1.00
NH3FUG	NH3FUG	All	AREA	700382.09	3450644.59	776.97	1.00	1.00	1.00
MSSFUG	MSSFUG	All	AREA	700382.09	3450644.59	776.97	1.00	1.00	1.00

Texas Commission on Environmental Quality

Electronic Modeling Evaluation Workbook (EMEW)

Area Source Parameters

Date: 8/3/2025
Permit #: TBD
Company Name: Pacifico GW LLC

EPN	Model ID	Rotation Angle (deg)	Radius (m)	Initial Vertical Sigma (m)	Area Source Initial Sigma Justification	Area Source Size Justification	Area Source Release Height Justification	Source Description
NGFUG	NGFUG	0.00		-	-	Approximate size of piping components.	Approximate height of piping components.	Natural Gas Piping Fugitives
NH3FUG	NH3FUG	0.00		-	-	Approximate size of piping components.	Approximate height of piping components.	SCR Delivery System Fugitives
MSSFUG	MSSFUG	0.00		-	-	Approximate size of piping components.	Approximate height of piping components.	ILE Turbine Maintenance Activities

Texas Commission on Environmental Quality

Electronic Modeling Evaluation Workbook (EMEW)

Modeling Scenarios

Date: 8/3/2025
Permit #: TBD

Company Name: Pacifico GW LLC

Modeling Scenario Information:

Modeling Scenario	Scenario Description
All	All project source emissions modeled as operating simultaneously.

Texas Commission on Environmental Quality

Electronic Modeling Evaluation Workbook (EMEW)

Flare & Point Source Emissions

Date: 8/3/2025
Permit #: TBD

Company Name: Pacifico GW LLC

EPN	Model ID	Modeling Scenario	Pollutant	Modeled Averaging Time	Standard Type	Review Context	Modeled Source Group ID (if entering multiple source group IDs, separate with semicolon)	Intermittent Source?	Modeled Emission Rate (lb/hr)	Basis of Modeled Emission Rate	Scalars or Factors Used?	Scalar/Factor in Use
CT-1A	CT_01A	All	SO2	1-hr	State Property Line	Site-Wide			0.739	Maximum allowable	No	
CT-2A	CT_02A	All	SO2	1-hr	State Property Line	Site-Wide			0.739	Maximum allowable	No	
CT-3A	CT_03A	All	SO2	1-hr	State Property Line	Site-Wide			0.739	Maximum allowable	No	
CT-4A	CT_04A	All	SO2	1-hr	State Property Line	Site-Wide			0.739	Maximum allowable	No	
CT-5A	CT_05A	All	SO2	1-hr	State Property Line	Site-Wide			0.739	Maximum allowable	No	
CT-6A	CT_06A	All	SO2	1-hr	State Property Line	Site-Wide			0.739	Maximum allowable	No	
CT-7A	CT_07A	All	SO2	1-hr	State Property Line	Site-Wide			0.739	Maximum allowable	No	
CT-8A	CT_08A	All	SO2	1-hr	State Property Line	Site-Wide			0.739	Maximum allowable	No	
CT-9A	CT_09A	All	SO2	1-hr	State Property Line	Site-Wide			0.739	Maximum allowable	No	
CT-10A	CT_10A	All	SO2	1-hr	State Property Line	Site-Wide			0.739	Maximum allowable	No	
CT-11A	CT_11A	All	SO2	1-hr	State Property Line	Site-Wide			0.739	Maximum allowable	No	
CT-12A	CT_12A	All	SO2	1-hr	State Property Line	Site-Wide			0.739	Maximum allowable	No	
CT-13A	CT_13A	All	SO2	1-hr	State Property Line	Site-Wide			0.739	Maximum allowable	No	
CT-14A	CT_14A	All	SO2	1-hr	State Property Line	Site-Wide			0.739	Maximum allowable	No	
CT-15A	CT_15A	All	SO2	1-hr	State Property Line	Site-Wide			0.739	Maximum allowable	No	
CT-16A	CT_16A	All	SO2	1-hr	State Property Line	Site-Wide			0.739	Maximum allowable	No	
CT-17A	CT_17A	All	SO2	1-hr	State Property Line	Site-Wide			0.739	Maximum allowable	No	
CT-18A	CT_18A	All	SO2	1-hr	State Property Line	Site-Wide			0.739	Maximum allowable	No	
CT-19A	CT_19A	All	SO2	1-hr	State Property Line	Site-Wide			0.739	Maximum allowable	No	
CT-20A	CT_20A	All	SO2	1-hr	State Property Line	Site-Wide			0.739	Maximum allowable	No	
CT-21A	CT_21A	All	SO2	1-hr	State Property Line	Site-Wide			0.739	Maximum allowable	No	
CT-1B	CT_01B	All	SO2	1-hr	State Property Line	Site-Wide			5.354	Maximum allowable	No	
CT-2B	CT_02B	All	SO2	1-hr	State Property Line	Site-Wide			5.354	Maximum allowable	No	
CT-3B	CT_03B	All	SO2	1-hr	State Property Line	Site-Wide			5.354	Maximum allowable	No	
CT-4B	CT_04B	All	SO2	1-hr	State Property Line	Site-Wide			5.354	Maximum allowable	No	
CT-5B	CT_05B	All	SO2	1-hr	State Property Line	Site-Wide			5.354	Maximum allowable	No	
CT-6B	CT_06B	All	SO2	1-hr	State Property Line	Site-Wide			5.354	Maximum allowable	No	
CT-7B	CT_07B	All	SO2	1-hr	State Property Line	Site-Wide			5.354	Maximum allowable	No	
CT-8B	CT_08B	All	SO2	1-hr	State Property Line	Site-Wide			5.354	Maximum allowable	No	
CT-9B	CT_09B	All	SO2	1-hr	State Property Line	Site-Wide			5.354	Maximum allowable	No	
CT-10B	CT_10B	All	SO2	1-hr	State Property Line	Site-Wide			5.354	Maximum allowable	No	
CT-11B	CT_11B	All	SO2	1-hr	State Property Line	Site-Wide			5.354	Maximum allowable	No	
CT-12B	CT_12B	All	SO2	1-hr	State Property Line	Site-Wide			5.354	Maximum allowable	No	
CT-13B	CT_13B	All	SO2	1-hr	State Property Line	Site-Wide			5.354	Maximum allowable	No	
CT-14B	CT_14B	All	SO2	1-hr	State Property Line	Site-Wide			5.354	Maximum allowable	No	
DPHEAT1	DPHT_01	All	SO2	1-hr	State Property Line	Site-Wide			0.012	Maximum allowable	No	
DPHEAT2	DPHT_02	All	SO2	1-hr	State Property Line	Site-Wide			0.012	Maximum allowable	No	
DPHEAT3	DPHT_03	All	SO2	1-hr	State Property Line	Site-Wide			0.012	Maximum allowable	No	
DPHEAT4	DPHT_04	All	SO2	1-hr	State Property Line	Site-Wide			0.012	Maximum allowable	No	
DPHEAT5	DPHT_05	All	SO2	1-hr	State Property Line	Site-Wide			0.012	Maximum allowable	No	
DPHEAT6	DPHT_06	All	SO2	1-hr	State Property Line	Site-Wide			0.016	Maximum allowable	No	
DPHEAT7	DPHT_07	All	SO2	1-hr	State Property Line	Site-Wide			0.016	Maximum allowable	No	
DPHEAT8	DPHT_08	All	SO2	1-hr	State Property Line	Site-Wide			0.016	Maximum allowable	No	
DPHEAT9	DPHT_09	All	SO2	1-hr	State Property Line	Site-Wide			0.016	Maximum allowable	No	
DPHEAT10	DPHT_10	All	SO2	1-hr	State Property Line	Site-Wide			0.016	Maximum allowable	No	
DPHEAT11	DPHT_11	All	SO2	1-hr	State Property Line	Site-Wide			0.016	Maximum allowable	No	
DPHEAT12	DPHT_12	All	SO2	1-hr	State Property Line	Site-Wide			0.016	Maximum allowable	No	
DPHEAT13	DPHT_13	All	SO2	1-hr	State Property Line	Site-Wide			0.016	Maximum allowable	No	
DPHEAT14	DPHT_14	All	SO2	1-hr	State Property Line	Site-Wide			0.016	Maximum allowable	No	
DPHEAT15	DPHT_15	All	SO2	1-hr	State Property Line	Site-Wide			0.016	Maximum allowable	No	
DPHEAT16	DPHT_16	All	SO2	1-hr	State Property Line	Site-Wide			0.016	Maximum allowable	No	
DPHEAT17	DPHT_17	All	SO2	1-hr	State Property Line	Site-Wide			0.016	Maximum allowable	No	
DPHEAT18	DPHT_18	All	SO2	1-hr	State Property Line	Site-Wide			0.016	Maximum allowable	No	
DPHEAT19	DPHT_19	All	SO2	1-hr	State Property Line	Site-Wide			0.016	Maximum allowable	No	

Texas Commission on Environmental Quality

Electronic Modeling Evaluation Workbook (EMEW)

Flare & Point Source Emissions

Date: 8/3/2025
Permit #: TBD

Company Name: Pacifico GW LLC

EPN	Model ID	Modeling Scenario	Pollutant	Modeled Averaging Time	Standard Type	Review Context	Modeled Source Group ID (if entering multiple source group IDs, separate with semicolon)	Intermittent Source?	Modeled Emission Rate (lb/hr)	Basis of Modeled Emission Rate	Scalars or Factors Used?	Scalar/Factor in Use
FPUMP1	FPUMP1	All	SO2	1-hr	State Property Line	Site-Wide			0.003	Maximum allowable	No	
FPUMP2	FPUMP2	All	SO2	1-hr	State Property Line	Site-Wide			0.003	Maximum allowable	No	
EGEN1	EGEN01	All	SO2	1-hr	State Property Line	Site-Wide			0.053	Maximum allowable	No	
EGEN2	EGEN02	All	SO2	1-hr	State Property Line	Site-Wide			0.053	Maximum allowable	No	
EGEN3	EGEN03	All	SO2	1-hr	State Property Line	Site-Wide			0.053	Maximum allowable	No	
EGEN4	EGEN04	All	SO2	1-hr	State Property Line	Site-Wide			0.053	Maximum allowable	No	
EGEN5	EGEN05	All	SO2	1-hr	State Property Line	Site-Wide			0.053	Maximum allowable	No	
EGEN6	EGEN06	All	SO2	1-hr	State Property Line	Site-Wide			0.053	Maximum allowable	No	
EGEN7	EGEN07	All	SO2	1-hr	State Property Line	Site-Wide			0.053	Maximum allowable	No	
EGEN8	EGEN08	All	SO2	1-hr	State Property Line	Site-Wide			0.053	Maximum allowable	No	
EGEN9	EGEN09	All	SO2	1-hr	State Property Line	Site-Wide			0.053	Maximum allowable	No	
EGEN10	EGEN10	All	SO2	1-hr	State Property Line	Site-Wide			0.053	Maximum allowable	No	
EGEN11	EGEN11	All	SO2	1-hr	State Property Line	Site-Wide			0.053	Maximum allowable	No	
EGEN12	EGEN12	All	SO2	1-hr	State Property Line	Site-Wide			0.053	Maximum allowable	No	
EGEN13	EGEN13	All	SO2	1-hr	State Property Line	Site-Wide			0.053	Maximum allowable	No	
EGEN14	EGEN14	All	SO2	1-hr	State Property Line	Site-Wide			0.053	Maximum allowable	No	
EGEN15	EGEN15	All	SO2	1-hr	State Property Line	Site-Wide			0.053	Maximum allowable	No	
ENGINE-1	ENGINE1	All	SO2	1-hr	State Property Line	Site-Wide			0.094	Maximum allowable	No	
ENGINE-2	ENGINE2	All	SO2	1-hr	State Property Line	Site-Wide			0.094	Maximum allowable	No	
CT-1A	CT_01A	All	H2SO4	1-hr	State Property Line	Site-Wide			0.113	Maximum allowable	No	
CT-2A	CT_02A	All	H2SO4	1-hr	State Property Line	Site-Wide			0.113	Maximum allowable	No	
CT-3A	CT_03A	All	H2SO4	1-hr	State Property Line	Site-Wide			0.113	Maximum allowable	No	
CT-4A	CT_04A	All	H2SO4	1-hr	State Property Line	Site-Wide			0.113	Maximum allowable	No	
CT-5A	CT_05A	All	H2SO4	1-hr	State Property Line	Site-Wide			0.113	Maximum allowable	No	
CT-6A	CT_06A	All	H2SO4	1-hr	State Property Line	Site-Wide			0.113	Maximum allowable	No	
CT-7A	CT_07A	All	H2SO4	1-hr	State Property Line	Site-Wide			0.113	Maximum allowable	No	
CT-8A	CT_08A	All	H2SO4	1-hr	State Property Line	Site-Wide			0.113	Maximum allowable	No	
CT-9A	CT_09A	All	H2SO4	1-hr	State Property Line	Site-Wide			0.113	Maximum allowable	No	
CT-10A	CT_10A	All	H2SO4	1-hr	State Property Line	Site-Wide			0.113	Maximum allowable	No	
CT-11A	CT_11A	All	H2SO4	1-hr	State Property Line	Site-Wide			0.113	Maximum allowable	No	
CT-12A	CT_12A	All	H2SO4	1-hr	State Property Line	Site-Wide			0.113	Maximum allowable	No	
CT-13A	CT_13A	All	H2SO4	1-hr	State Property Line	Site-Wide			0.113	Maximum allowable	No	
CT-14A	CT_14A	All	H2SO4	1-hr	State Property Line	Site-Wide			0.113	Maximum allowable	No	
CT-15A	CT_15A	All	H2SO4	1-hr	State Property Line	Site-Wide			0.113	Maximum allowable	No	
CT-16A	CT_16A	All	H2SO4	1-hr	State Property Line	Site-Wide			0.113	Maximum allowable	No	
CT-17A	CT_17A	All	H2SO4	1-hr	State Property Line	Site-Wide			0.113	Maximum allowable	No	
CT-18A	CT_18A	All	H2SO4	1-hr	State Property Line	Site-Wide			0.113	Maximum allowable	No	
CT-19A	CT_19A	All	H2SO4	1-hr	State Property Line	Site-Wide			0.113	Maximum allowable	No	
CT-20A	CT_20A	All	H2SO4	1-hr	State Property Line	Site-Wide			0.113	Maximum allowable	No	
CT-21A	CT_21A	All	H2SO4	1-hr	State Property Line	Site-Wide			0.113	Maximum allowable	No	
CT-1B	CT_01B	All	H2SO4	1-hr	State Property Line	Site-Wide			0.819	Maximum allowable	No	
CT-2B	CT_02B	All	H2SO4	1-hr	State Property Line	Site-Wide			0.819	Maximum allowable	No	
CT-3B	CT_03B	All	H2SO4	1-hr	State Property Line	Site-Wide			0.819	Maximum allowable	No	
CT-4B	CT_04B	All	H2SO4	1-hr	State Property Line	Site-Wide			0.819	Maximum allowable	No	
CT-5B	CT_05B	All	H2SO4	1-hr	State Property Line	Site-Wide			0.819	Maximum allowable	No	
CT-6B	CT_06B	All	H2SO4	1-hr	State Property Line	Site-Wide			0.819	Maximum allowable	No	
CT-7B	CT_07B	All	H2SO4	1-hr	State Property Line	Site-Wide			0.819	Maximum allowable	No	
CT-8B	CT_08B	All	H2SO4	1-hr	State Property Line	Site-Wide			0.819	Maximum allowable	No	
CT-9B	CT_09B	All	H2SO4	1-hr	State Property Line	Site-Wide			0.819	Maximum allowable	No	
CT-10B	CT_10B	All	H2SO4	1-hr	State Property Line	Site-Wide			0.819	Maximum allowable	No	
CT-11B	CT_11B	All	H2SO4	1-hr	State Property Line	Site-Wide			0.819	Maximum allowable	No	
CT-12B	CT_12B	All	H2SO4	1-hr	State Property Line	Site-Wide			0.819	Maximum allowable	No	
CT-13B	CT_13B	All	H2SO4	1-hr	State Property Line	Site-Wide			0.819	Maximum allowable	No	
CT-14B	CT_14B	All	H2SO4	1-hr	State Property Line	Site-Wide			0.819	Maximum allowable	No	

Texas Commission on Environmental Quality

Electronic Modeling Evaluation Workbook (EMEW)

Flare & Point Source Emissions

Date: 8/3/2025
Permit #: TBD

Company Name: Pacifico GW LLC

EPN	Model ID	Modeling Scenario	Pollutant	Modeled Averaging Time	Standard Type	Review Context	Modeled Source Group ID (if entering multiple source group IDs, separate with semicolon)	Intermittent Source?	Modeled Emission Rate (lb/hr)	Basis of Modeled Emission Rate	Scalars or Factors Used?	Scalar/Factor in Use
CT-1A	CT_01A	All	H2SO4	24-hr	State Property Line	Site-Wide			0.113	Maximum allowable	No	
CT-2A	CT_02A	All	H2SO4	24-hr	State Property Line	Site-Wide			0.113	Maximum allowable	No	
CT-3A	CT_03A	All	H2SO4	24-hr	State Property Line	Site-Wide			0.113	Maximum allowable	No	
CT-4A	CT_04A	All	H2SO4	24-hr	State Property Line	Site-Wide			0.113	Maximum allowable	No	
CT-5A	CT_05A	All	H2SO4	24-hr	State Property Line	Site-Wide			0.113	Maximum allowable	No	
CT-6A	CT_06A	All	H2SO4	24-hr	State Property Line	Site-Wide			0.113	Maximum allowable	No	
CT-7A	CT_07A	All	H2SO4	24-hr	State Property Line	Site-Wide			0.113	Maximum allowable	No	
CT-8A	CT_08A	All	H2SO4	24-hr	State Property Line	Site-Wide			0.113	Maximum allowable	No	
CT-9A	CT_09A	All	H2SO4	24-hr	State Property Line	Site-Wide			0.113	Maximum allowable	No	
CT-10A	CT_10A	All	H2SO4	24-hr	State Property Line	Site-Wide			0.113	Maximum allowable	No	
CT-11A	CT_11A	All	H2SO4	24-hr	State Property Line	Site-Wide			0.113	Maximum allowable	No	
CT-12A	CT_12A	All	H2SO4	24-hr	State Property Line	Site-Wide			0.113	Maximum allowable	No	
CT-13A	CT_13A	All	H2SO4	24-hr	State Property Line	Site-Wide			0.113	Maximum allowable	No	
CT-14A	CT_14A	All	H2SO4	24-hr	State Property Line	Site-Wide			0.113	Maximum allowable	No	
CT-15A	CT_15A	All	H2SO4	24-hr	State Property Line	Site-Wide			0.113	Maximum allowable	No	
CT-16A	CT_16A	All	H2SO4	24-hr	State Property Line	Site-Wide			0.113	Maximum allowable	No	
CT-17A	CT_17A	All	H2SO4	24-hr	State Property Line	Site-Wide			0.113	Maximum allowable	No	
CT-18A	CT_18A	All	H2SO4	24-hr	State Property Line	Site-Wide			0.113	Maximum allowable	No	
CT-19A	CT_19A	All	H2SO4	24-hr	State Property Line	Site-Wide			0.113	Maximum allowable	No	
CT-20A	CT_20A	All	H2SO4	24-hr	State Property Line	Site-Wide			0.113	Maximum allowable	No	
CT-21A	CT_21A	All	H2SO4	24-hr	State Property Line	Site-Wide			0.113	Maximum allowable	No	
CT-1B	CT_01B	All	H2SO4	24-hr	State Property Line	Site-Wide			0.819	Maximum allowable	No	
CT-2B	CT_02B	All	H2SO4	24-hr	State Property Line	Site-Wide			0.819	Maximum allowable	No	
CT-3B	CT_03B	All	H2SO4	24-hr	State Property Line	Site-Wide			0.819	Maximum allowable	No	
CT-4B	CT_04B	All	H2SO4	24-hr	State Property Line	Site-Wide			0.819	Maximum allowable	No	
CT-5B	CT_05B	All	H2SO4	24-hr	State Property Line	Site-Wide			0.819	Maximum allowable	No	
CT-6B	CT_06B	All	H2SO4	24-hr	State Property Line	Site-Wide			0.819	Maximum allowable	No	
CT-7B	CT_07B	All	H2SO4	24-hr	State Property Line	Site-Wide			0.819	Maximum allowable	No	
CT-8B	CT_08B	All	H2SO4	24-hr	State Property Line	Site-Wide			0.819	Maximum allowable	No	
CT-9B	CT_09B	All	H2SO4	24-hr	State Property Line	Site-Wide			0.819	Maximum allowable	No	
CT-10B	CT_10B	All	H2SO4	24-hr	State Property Line	Site-Wide			0.819	Maximum allowable	No	
CT-11B	CT_11B	All	H2SO4	24-hr	State Property Line	Site-Wide			0.819	Maximum allowable	No	
CT-12B	CT_12B	All	H2SO4	24-hr	State Property Line	Site-Wide			0.819	Maximum allowable	No	
CT-13B	CT_13B	All	H2SO4	24-hr	State Property Line	Site-Wide			0.819	Maximum allowable	No	
CT-14B	CT_14B	All	H2SO4	24-hr	State Property Line	Site-Wide			0.819	Maximum allowable	No	

Texas Commission on Environmental Quality

Electronic Modeling Evaluation Workbook (EMEW)

Area Source Emissions

Date: 8/3/2025
Permit #: TBD

Company Name: Pacifico GW LLC

EPN	Model ID	Modeling Scenario	Pollutant	Modeled Averaging Time	Standard Type	Review Context	Modeled Source Group ID (if entering multiple source group IDs, separate with semicolon)	Intermittent Source?	Modeled Emission Rate (lb/hr)	Basis of Modeled Emission Rate	Scalars or Factors Used?	Scalar/Factor in Use
NGFUG	NGFUG	All	H2S	1-hr	State Property Line	Site-Wide			0.000	Maximum allowable	No	
MSSFUG	MSSFUG	All	H2S	1-hr	State Property Line	Site-Wide			0.005	Maximum allowable	No	

Texas Commission on Environmental Quality

Electronic Modeling Evaluation Workbook (EMEW)

Speciated Emissions

Date: 8/3/2025
Permit #: TBD

Company Name: Pacifico GW LLC

Speciated Emissions by Model ID:

EPN	Model ID	Modeling Scenario	Review Context	Modeled Source Group ID (if entering multiple	CAS #	Chemical Species	Other Species	Short-Term ESL ($\mu g/m^3$)	Long-Term ESL ($\mu g/m^3$)	Modeled Averaging Time	Modeled Emission Rate (lb/hr)	Basis of Emission Rate	Scalars or Factors Used?	Scalar/Factor in Use
CT-1A	CT_01A	All	Site-Wide		7664-41-7	ammonia		180	92	1-hr	7.181728653	Maximum allowable	No	
CT-2A	CT_02A	All	Site-Wide		7664-41-7	ammonia		180	92	1-hr	7.181728653	Maximum allowable	No	
CT-3A	CT_03A	All	Site-Wide		7664-41-7	ammonia		180	92	1-hr	7.181728653	Maximum allowable	No	
CT-4A	CT_04A	All	Site-Wide		7664-41-7	ammonia		180	92	1-hr	7.181728653	Maximum allowable	No	
CT-5A	CT_05A	All	Site-Wide		7664-41-7	ammonia		180	92	1-hr	7.181728653	Maximum allowable	No	
CT-6A	CT_06A	All	Site-Wide		7664-41-7	ammonia		180	92	1-hr	7.181728653	Maximum allowable	No	
CT-7A	CT_07A	All	Site-Wide		7664-41-7	ammonia		180	92	1-hr	7.181728653	Maximum allowable	No	
CT-8A	CT_08A	All	Site-Wide		7664-41-7	ammonia		180	92	1-hr	7.181728653	Maximum allowable	No	
CT-9A	CT_09A	All	Site-Wide		7664-41-7	ammonia		180	92	1-hr	7.181728653	Maximum allowable	No	
CT-10A	CT_10A	All	Site-Wide		7664-41-7	ammonia		180	92	1-hr	7.181728653	Maximum allowable	No	
CT-11A	CT_11A	All	Site-Wide		7664-41-7	ammonia		180	92	1-hr	7.181728653	Maximum allowable	No	
CT-12A	CT_12A	All	Site-Wide		7664-41-7	ammonia		180	92	1-hr	7.181728653	Maximum allowable	No	
CT-13A	CT_13A	All	Site-Wide		7664-41-7	ammonia		180	92	1-hr	7.181728653	Maximum allowable	No	
CT-14A	CT_14A	All	Site-Wide		7664-41-7	ammonia		180	92	1-hr	7.181728653	Maximum allowable	No	
CT-15A	CT_15A	All	Site-Wide		7664-41-7	ammonia		180	92	1-hr	7.181728653	Maximum allowable	No	
CT-16A	CT_16A	All	Site-Wide		7664-41-7	ammonia		180	92	1-hr	7.181728653	Maximum allowable	No	
CT-17A	CT_17A	All	Site-Wide		7664-41-7	ammonia		180	92	1-hr	7.181728653	Maximum allowable	No	
CT-18A	CT_18A	All	Site-Wide		7664-41-7	ammonia		180	92	1-hr	7.181728653	Maximum allowable	No	
CT-19A	CT_19A	All	Site-Wide		7664-41-7	ammonia		180	92	1-hr	7.181728653	Maximum allowable	No	
CT-20A	CT_20A	All	Site-Wide		7664-41-7	ammonia		180	92	1-hr	7.181728653	Maximum allowable	No	
CT-21A	CT_21A	All	Site-Wide		7664-41-7	ammonia		180	92	1-hr	7.181728653	Maximum allowable	No	
CT-1B	CT_01B	All	Site-Wide		7664-41-7	ammonia		180	92	1-hr	52.00314484	Maximum allowable	No	
CT-2B	CT_02B	All	Site-Wide		7664-41-7	ammonia		180	92	1-hr	52.00314484	Maximum allowable	No	
CT-3B	CT_03B	All	Site-Wide		7664-41-7	ammonia		180	92	1-hr	52.00314484	Maximum allowable	No	
CT-4B	CT_04B	All	Site-Wide		7664-41-7	ammonia		180	92	1-hr	52.00314484	Maximum allowable	No	
CT-5B	CT_05B	All	Site-Wide		7664-41-7	ammonia		180	92	1-hr	52.00314484	Maximum allowable	No	
CT-6B	CT_06B	All	Site-Wide		7664-41-7	ammonia		180	92	1-hr	52.00314484	Maximum allowable	No	
CT-7B	CT_07B	All	Site-Wide		7664-41-7	ammonia		180	92	1-hr	52.00314484	Maximum allowable	No	
CT-8B	CT_08B	All	Site-Wide		7664-41-7	ammonia		180	92	1-hr	52.00314484	Maximum allowable	No	
CT-9B	CT_09B	All	Site-Wide		7664-41-7	ammonia		180	92	1-hr	52.00314484	Maximum allowable	No	
CT-10B	CT_10B	All	Site-Wide		7664-41-7	ammonia		180	92	1-hr	52.00314484	Maximum allowable	No	

Texas Commission on Environmental Quality

Electronic Modeling Evaluation Workbook (EMEW)

Speciated Emissions

Date: 8/3/2025
Permit #: TBD

Company Name: Pacifico GW LLC

Speciated Emissions by Model ID:

EPN	Model ID	Modeling Scenario	Review Context	Modeled Source Group ID (if entering multiple	CAS #	Chemical Species	Other Species	Short-Term ESL ($\mu g/m^3$)	Long-Term ESL ($\mu g/m^3$)	Modeled Averaging Time	Modeled Emission Rate (lb/hr)	Basis of Emission Rate	Scalars or Factors Used?	Scalar/Factor in Use
CT-11B	CT_11B	All	Site-Wide		7664-41-7	ammonia		180	92	1-hr	52.00314484	Maximum allowable	No	
CT-12B	CT_12B	All	Site-Wide		7664-41-7	ammonia		180	92	1-hr	52.00314484	Maximum allowable	No	
CT-13B	CT_13B	All	Site-Wide		7664-41-7	ammonia		180	92	1-hr	52.00314484	Maximum allowable	No	
CT-14B	CT_14B	All	Site-Wide		7664-41-7	ammonia		180	92	1-hr	52.00314484	Maximum allowable	No	
NH3FUG	NH3FUG	All	Site-Wide		7664-41-7	ammonia		180	92	1-hr	0.0152076	Maximum allowable	No	
MSSFUG	MSSFUG	All	Site-Wide		7664-41-7	ammonia		180	92	1-hr	0.126784584	Maximum allowable	No	
CT-1A	CT_01A	All	Site-Wide		7664-41-7	ammonia		180	92	Annual	3.590864327	Maximum allowable	No	
CT-2A	CT_02A	All	Site-Wide		7664-41-7	ammonia		180	92	Annual	3.590864327	Maximum allowable	No	
CT-3A	CT_03A	All	Site-Wide		7664-41-7	ammonia		180	92	Annual	3.590864327	Maximum allowable	No	
CT-4A	CT_04A	All	Site-Wide		7664-41-7	ammonia		180	92	Annual	3.590864327	Maximum allowable	No	
CT-5A	CT_05A	All	Site-Wide		7664-41-7	ammonia		180	92	Annual	3.590864327	Maximum allowable	No	
CT-6A	CT_06A	All	Site-Wide		7664-41-7	ammonia		180	92	Annual	3.590864327	Maximum allowable	No	
CT-7A	CT_07A	All	Site-Wide		7664-41-7	ammonia		180	92	Annual	3.590864327	Maximum allowable	No	
CT-8A	CT_08A	All	Site-Wide		7664-41-7	ammonia		180	92	Annual	3.590864327	Maximum allowable	No	
CT-9A	CT_09A	All	Site-Wide		7664-41-7	ammonia		180	92	Annual	3.590864327	Maximum allowable	No	
CT-10A	CT_10A	All	Site-Wide		7664-41-7	ammonia		180	92	Annual	3.590864327	Maximum allowable	No	
CT-11A	CT_11A	All	Site-Wide		7664-41-7	ammonia		180	92	Annual	3.590864327	Maximum allowable	No	
CT-12A	CT_12A	All	Site-Wide		7664-41-7	ammonia		180	92	Annual	3.590864327	Maximum allowable	No	
CT-13A	CT_13A	All	Site-Wide		7664-41-7	ammonia		180	92	Annual	3.590864327	Maximum allowable	No	
CT-14A	CT_14A	All	Site-Wide		7664-41-7	ammonia		180	92	Annual	3.590864327	Maximum allowable	No	
CT-15A	CT_15A	All	Site-Wide		7664-41-7	ammonia		180	92	Annual	3.590864327	Maximum allowable	No	
CT-16A	CT_16A	All	Site-Wide		7664-41-7	ammonia		180	92	Annual	3.590864327	Maximum allowable	No	
CT-17A	CT_17A	All	Site-Wide		7664-41-7	ammonia		180	92	Annual	3.590864327	Maximum allowable	No	
CT-18A	CT_18A	All	Site-Wide		7664-41-7	ammonia		180	92	Annual	3.590864327	Maximum allowable	No	
CT-19A	CT_19A	All	Site-Wide		7664-41-7	ammonia		180	92	Annual	3.590864327	Maximum allowable	No	
CT-20A	CT_20A	All	Site-Wide		7664-41-7	ammonia		180	92	Annual	3.590864327	Maximum allowable	No	
CT-21A	CT_21A	All	Site-Wide		7664-41-7	ammonia		180	92	Annual	3.590864327	Maximum allowable	No	
CT-1B	CT_01B	All	Site-Wide		7664-41-7	ammonia		180	92	Annual	26.00157242	Maximum allowable	No	
CT-2B	CT_02B	All	Site-Wide		7664-41-7	ammonia		180	92	Annual	26.00157242	Maximum allowable	No	
CT-3B	CT_03B	All	Site-Wide		7664-41-7	ammonia		180	92	Annual	26.00157242	Maximum allowable	No	
CT-4B	CT_04B	All	Site-Wide		7664-41-7	ammonia		180	92	Annual	26.00157242	Maximum allowable	No	

Texas Commission on Environmental Quality

Electronic Modeling Evaluation Workbook (EMEW)

Speciated Emissions

Date: 8/3/2025
Permit #: TBD

Company Name: Pacifico GW LLC

Speciated Emissions by Model ID:

EPN	Model ID	Modeling Scenario	Review Context	Modeled Source Group ID (if entering multiple	CAS #	Chemical Species	Other Species	Short-Term ESL ($\mu g/m^3$)	Long-Term ESL ($\mu g/m^3$)	Modeled Averaging Time	Modeled Emission Rate (lb/hr)	Basis of Emission Rate	Scalars or Factors Used?	Scalar/Factor in Use
CT-5B	CT_05B	All	Site-Wide		7664-41-7	ammonia		180	92	Annual	26.00157242	Maximum allowable	No	
CT-6B	CT_06B	All	Site-Wide		7664-41-7	ammonia		180	92	Annual	26.00157242	Maximum allowable	No	
CT-7B	CT_07B	All	Site-Wide		7664-41-7	ammonia		180	92	Annual	26.00157242	Maximum allowable	No	
CT-8B	CT_08B	All	Site-Wide		7664-41-7	ammonia		180	92	Annual	26.00157242	Maximum allowable	No	
CT-9B	CT_09B	All	Site-Wide		7664-41-7	ammonia		180	92	Annual	26.00157242	Maximum allowable	No	
CT-10B	CT_10B	All	Site-Wide		7664-41-7	ammonia		180	92	Annual	26.00157242	Maximum allowable	No	
CT-11B	CT_11B	All	Site-Wide		7664-41-7	ammonia		180	92	Annual	26.00157242	Maximum allowable	No	
CT-12B	CT_12B	All	Site-Wide		7664-41-7	ammonia		180	92	Annual	26.00157242	Maximum allowable	No	
CT-13B	CT_13B	All	Site-Wide		7664-41-7	ammonia		180	92	Annual	26.00157242	Maximum allowable	No	
CT-14B	CT_14B	All	Site-Wide		7664-41-7	ammonia		180	92	Annual	26.00157242	Maximum allowable	No	
NH3FUG	NH3FUG	All	Site-Wide		7664-41-7	ammonia		180	92	Annual	0.0152076	Maximum allowable	No	
MSSFUG	MSSFUG	All	Site-Wide		7664-41-7	ammonia		180	92	Annual	0.000194947	Maximum allowable	No	
OILVENT1	LOV_01A	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	1-hr	0.01815	Maximum allowable	No	
OILVENT2	LOV_02A	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	1-hr	0.01815	Maximum allowable	No	
OILVENT3	LOV_03A	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	1-hr	0.01815	Maximum allowable	No	
OILVENT4	LOV_04A	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	1-hr	0.01815	Maximum allowable	No	
OILVENT5	LOV_05A	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	1-hr	0.01815	Maximum allowable	No	
OILVENT6	LOV_06A	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	1-hr	0.01815	Maximum allowable	No	
OILVENT7	LOV_07A	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	1-hr	0.01815	Maximum allowable	No	
OILVENT8	LOV_08A	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	1-hr	0.01815	Maximum allowable	No	
OILVENT9	LOV_09A	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	1-hr	0.01815	Maximum allowable	No	
OILVENT10	LOV_10A	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	1-hr	0.01815	Maximum allowable	No	
OILVENT11	LOV_11A	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	1-hr	0.01815	Maximum allowable	No	
OILVENT12	LOV_12A	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	1-hr	0.01815	Maximum allowable	No	
OILVENT13	LOV_13A	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	1-hr	0.01815	Maximum allowable	No	
OILVENT14	LOV_14A	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	1-hr	0.01815	Maximum allowable	No	
OILVENT15	LOV_15A	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	1-hr	0.01815	Maximum allowable	No	
OILVENT16	LOV_16A	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	1-hr	0.01815	Maximum allowable	No	
OILVENT17	LOV_17A	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	1-hr	0.01815	Maximum allowable	No	
OILVENT18	LOV_18A	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	1-hr	0.01815	Maximum allowable	No	
OILVENT19	LOV_19A	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	1-hr	0.01815	Maximum allowable	No	

Texas Commission on Environmental Quality

Electronic Modeling Evaluation Workbook (EMEW)

Speciated Emissions

Date: 8/3/2025
Permit #: TBD

Company Name: Pacifico GW LLC

Speciated Emissions by Model ID:

EPN	Model ID	Modeling Scenario	Review Context	Modeled Source Group ID (if entering multiple	CAS #	Chemical Species	Other Species	Short-Term ESL ($\mu g/m^3$)	Long-Term ESL ($\mu g/m^3$)	Modeled Averaging Time	Modeled Emission Rate (lb/hr)	Basis of Emission Rate	Scalars or Factors Used?	Scalar/Factor in Use
OILVENT20	LOV_20A	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	1-hr	0.01815	Maximum allowable	No	
OILVENT21	LOV_21A	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	1-hr	0.01815	Maximum allowable	No	
OILVENT22	LOV_01B	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	1-hr	0.01815	Maximum allowable	No	
OILVENT23	LOV_02B	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	1-hr	0.01815	Maximum allowable	No	
OILVENT24	LOV_03B	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	1-hr	0.01815	Maximum allowable	No	
OILVENT25	LOV_04B	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	1-hr	0.01815	Maximum allowable	No	
OILVENT26	LOV_05B	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	1-hr	0.01815	Maximum allowable	No	
OILVENT27	LOV_06B	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	1-hr	0.01815	Maximum allowable	No	
OILVENT28	LOV_07B	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	1-hr	0.01815	Maximum allowable	No	
OILVENT29	LOV_08B	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	1-hr	0.01815	Maximum allowable	No	
OILVENT30	LOV_09B	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	1-hr	0.01815	Maximum allowable	No	
OILVENT31	LOV_10B	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	1-hr	0.01815	Maximum allowable	No	
OILVENT32	LOV_11B	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	1-hr	0.01815	Maximum allowable	No	
OILVENT33	LOV_12B	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	1-hr	0.01815	Maximum allowable	No	
OILVENT34	LOV_13B	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	1-hr	0.01815	Maximum allowable	No	
OILVENT35	LOV_14B	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	1-hr	0.01815	Maximum allowable	No	
OILVENT1	LOV_01A	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	Annual	0.01815	Maximum allowable	No	
OILVENT2	LOV_02A	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	Annual	0.01815	Maximum allowable	No	
OILVENT3	LOV_03A	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	Annual	0.01815	Maximum allowable	No	
OILVENT4	LOV_04A	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	Annual	0.01815	Maximum allowable	No	
OILVENT5	LOV_05A	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	Annual	0.01815	Maximum allowable	No	
OILVENT6	LOV_06A	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	Annual	0.01815	Maximum allowable	No	
OILVENT7	LOV_07A	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	Annual	0.01815	Maximum allowable	No	
OILVENT8	LOV_08A	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	Annual	0.01815	Maximum allowable	No	
OILVENT9	LOV_09A	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	Annual	0.01815	Maximum allowable	No	
OILVENT10	LOV_10A	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	Annual	0.01815	Maximum allowable	No	
OILVENT11	LOV_11A	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	Annual	0.01815	Maximum allowable	No	
OILVENT12	LOV_12A	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	Annual	0.01815	Maximum allowable	No	
OILVENT13	LOV_13A	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	Annual	0.01815	Maximum allowable	No	
OILVENT14	LOV_14A	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	Annual	0.01815	Maximum allowable	No	
OILVENT15	LOV_15A	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	Annual	0.01815	Maximum allowable	No	

Texas Commission on Environmental Quality

Electronic Modeling Evaluation Workbook (EMEW)

Speciated Emissions

Date: 8/3/2025
Permit #: TBD

Company Name: Pacifico GW LLC

Speciated Emissions by Model ID:

EPN	Model ID	Modeling Scenario	Review Context	Modeled Source Group ID (if entering multiple	CAS #	Chemical Species	Other Species	Short-Term ESL ($\mu g/m^3$)	Long-Term ESL ($\mu g/m^3$)	Modeled Averaging Time	Modeled Emission Rate (lb/hr)	Basis of Emission Rate	Scalars or Factors Used?	Scalar/Factor in Use
OILVENT16	LOV_16A	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	Annual	0.01815	Maximum allowable	No	
OILVENT17	LOV_17A	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	Annual	0.01815	Maximum allowable	No	
OILVENT18	LOV_18A	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	Annual	0.01815	Maximum allowable	No	
OILVENT19	LOV_19A	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	Annual	0.01815	Maximum allowable	No	
OILVENT20	LOV_20A	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	Annual	0.01815	Maximum allowable	No	
OILVENT21	LOV_21A	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	Annual	0.01815	Maximum allowable	No	
OILVENT22	LOV_01B	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	Annual	0.01815	Maximum allowable	No	
OILVENT23	LOV_02B	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	Annual	0.01815	Maximum allowable	No	
OILVENT24	LOV_03B	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	Annual	0.01815	Maximum allowable	No	
OILVENT25	LOV_04B	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	Annual	0.01815	Maximum allowable	No	
OILVENT26	LOV_05B	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	Annual	0.01815	Maximum allowable	No	
OILVENT27	LOV_06B	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	Annual	0.01815	Maximum allowable	No	
OILVENT28	LOV_07B	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	Annual	0.01815	Maximum allowable	No	
OILVENT29	LOV_08B	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	Annual	0.01815	Maximum allowable	No	
OILVENT30	LOV_09B	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	Annual	0.01815	Maximum allowable	No	
OILVENT31	LOV_10B	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	Annual	0.01815	Maximum allowable	No	
OILVENT32	LOV_11B	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	Annual	0.01815	Maximum allowable	No	
OILVENT33	LOV_12B	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	Annual	0.01815	Maximum allowable	No	
OILVENT34	LOV_13B	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	Annual	0.01815	Maximum allowable	No	
OILVENT35	LOV_14B	All	Site-Wide		not found	Other (specify):	RHT base oils	1000	100	Annual	0.01815	Maximum allowable	No	
TNK-DSL1	TNK_DSL1	All	Site-Wide		68334-30-5	diesel fuel		1000	100	1-hr	0.1091	Maximum allowable	No	
TNK-DSL2	TNK_DSL2	All	Site-Wide		68334-30-5	diesel fuel		1000	100	1-hr	0.1091	Maximum allowable	No	
TNK-DSL3	TNK_DSL3	All	Site-Wide		68334-30-5	diesel fuel		1000	100	1-hr	0.1091	Maximum allowable	No	
TNK-DSL4	TNK_DSL4	All	Site-Wide		68334-30-5	diesel fuel		1000	100	1-hr	0.1091	Maximum allowable	No	
TNK-DSL5	TNK_DSL5	All	Site-Wide		68334-30-5	diesel fuel		1000	100	1-hr	0.1091	Maximum allowable	No	
TNK-DSL6	TNK_DSL6	All	Site-Wide		68334-30-5	diesel fuel		1000	100	1-hr	0.1091	Maximum allowable	No	
TNK-DSL7	TNK_DSL7	All	Site-Wide		68334-30-5	diesel fuel		1000	100	1-hr	0.1091	Maximum allowable	No	
MSSFUG	MSSFUG	All	Site-Wide		68334-30-5	diesel fuel		1000	100	1-hr	8.5604	Maximum allowable	No	
TNK-DSL1	TNK_DSL1	All	Site-Wide		68334-30-5	diesel fuel		1000	100	Annual	0.001369863	Maximum allowable	No	
TNK-DSL2	TNK_DSL2	All	Site-Wide		68334-30-5	diesel fuel		1000	100	Annual	0.001369863	Maximum allowable	No	
TNK-DSL3	TNK_DSL3	All	Site-Wide		68334-30-5	diesel fuel		1000	100	Annual	0.001369863	Maximum allowable	No	

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EPN	Model ID	Modeling Scenario	Review Context	Modeled Source Group ID (if entering multiple	CAS #	Chemical Species	Other Species	Short-Term ESL ($\mu g/m^3$)	Long-Term ESL ($\mu g/m^3$)	Modeled Averaging Time	Modeled Emission Rate (lb/hr)	Basis of Emission Rate	Scalars or Factors Used?	Scalar/Factor in Use
TNK-DSL4	TNK_DSL4	All	Site-Wide		68334-30-5	diesel fuel		1000	100	Annual	0.001369863	Maximum allowable	No	
TNK-DSL5	TNK_DSL5	All	Site-Wide		68334-30-5	diesel fuel		1000	100	Annual	6.85E-04	Maximum allowable	No	
TNK-DSL6	TNK_DSL6	All	Site-Wide		68334-30-5	diesel fuel		1000	100	Annual	6.85E-04	Maximum allowable	No	
TNK-DSL7	TNK_DSL7	All	Site-Wide		68334-30-5	diesel fuel		1000	100	Annual	6.85E-04	Maximum allowable	No	
MSSFUG	MSSFUG	All	Site-Wide		68334-30-5	diesel fuel		1000	100	Annual	0.126643836	Maximum allowable	No	
FPUMP1	FPUMP1	All	Site-Wide		10024-97-2	nitrous oxide		4500	450	1-hr	0.002824122	Maximum allowable	No	
FPUMP2	FPUMP2	All	Site-Wide		10024-97-2	nitrous oxide		4500	450	1-hr	0.002824122	Maximum allowable	No	
EGEN1	EGEN01	All	Site-Wide		10024-97-2	nitrous oxide		4500	450	1-hr	0.03725124	Maximum allowable	No	
EGEN2	EGEN02	All	Site-Wide		10024-97-2	nitrous oxide		4500	450	1-hr	0.03725124	Maximum allowable	No	
EGEN3	EGEN03	All	Site-Wide		10024-97-2	nitrous oxide		4500	450	1-hr	0.03725124	Maximum allowable	No	
EGEN4	EGEN04	All	Site-Wide		10024-97-2	nitrous oxide		4500	450	1-hr	0.03725124	Maximum allowable	No	
EGEN5	EGEN05	All	Site-Wide		10024-97-2	nitrous oxide		4500	450	1-hr	0.03725124	Maximum allowable	No	
EGEN6	EGEN06	All	Site-Wide		10024-97-2	nitrous oxide		4500	450	1-hr	0.03725124	Maximum allowable	No	
EGEN7	EGEN07	All	Site-Wide		10024-97-2	nitrous oxide		4500	450	1-hr	0.03725124	Maximum allowable	No	
EGEN8	EGEN08	All	Site-Wide		10024-97-2	nitrous oxide		4500	450	1-hr	0.03725124	Maximum allowable	No	
EGEN9	EGEN09	All	Site-Wide		10024-97-2	nitrous oxide		4500	450	1-hr	0.03725124	Maximum allowable	No	
EGEN10	EGEN10	All	Site-Wide		10024-97-2	nitrous oxide		4500	450	1-hr	0.03725124	Maximum allowable	No	
EGEN11	EGEN11	All	Site-Wide		10024-97-2	nitrous oxide		4500	450	1-hr	0.03725124	Maximum allowable	No	
EGEN12	EGEN12	All	Site-Wide		10024-97-2	nitrous oxide		4500	450	1-hr	0.03725124	Maximum allowable	No	
EGEN13	EGEN13	All	Site-Wide		10024-97-2	nitrous oxide		4500	450	1-hr	0.03725124	Maximum allowable	No	
EGEN14	EGEN14	All	Site-Wide		10024-97-2	nitrous oxide		4500	450	1-hr	0.03725124	Maximum allowable	No	
EGEN15	EGEN15	All	Site-Wide		10024-97-2	nitrous oxide		4500	450	1-hr	0.03725124	Maximum allowable	No	
FPUMP1	FPUMP1	All	Site-Wide		10024-97-2	nitrous oxide		4500	450	Annual	0.000141206	Maximum allowable	No	
FPUMP2	FPUMP2	All	Site-Wide		10024-97-2	nitrous oxide		4500	450	Annual	0.000141206	Maximum allowable	No	
EGEN1	EGEN01	All	Site-Wide		10024-97-2	nitrous oxide		4500	450	Annual	0.001862562	Maximum allowable	No	
EGEN2	EGEN02	All	Site-Wide		10024-97-2	nitrous oxide		4500	450	Annual	0.001862562	Maximum allowable	No	
EGEN3	EGEN03	All	Site-Wide		10024-97-2	nitrous oxide		4500	450	Annual	0.001862562	Maximum allowable	No	
EGEN4	EGEN04	All	Site-Wide		10024-97-2	nitrous oxide		4500	450	Annual	0.001862562	Maximum allowable	No	
EGEN5	EGEN05	All	Site-Wide		10024-97-2	nitrous oxide		4500	450	Annual	0.001862562	Maximum allowable	No	
EGEN6	EGEN06	All	Site-Wide		10024-97-2	nitrous oxide		4500	450	Annual	0.001862562	Maximum allowable	No	
EGEN7	EGEN07	All	Site-Wide		10024-97-2	nitrous oxide		4500	450	Annual	0.001862562	Maximum allowable	No	

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EGEN8	EGEN08	All	Site-Wide		10024-97-2	nitrous oxide		4500	450	Annual	0.001862562	Maximum allowable	No	
EGEN9	EGEN09	All	Site-Wide		10024-97-2	nitrous oxide		4500	450	Annual	0.001862562	Maximum allowable	No	
EGEN10	EGEN10	All	Site-Wide		10024-97-2	nitrous oxide		4500	450	Annual	0.001862562	Maximum allowable	No	
EGEN11	EGEN11	All	Site-Wide		10024-97-2	nitrous oxide		4500	450	Annual	0.001862562	Maximum allowable	No	
EGEN12	EGEN12	All	Site-Wide		10024-97-2	nitrous oxide		4500	450	Annual	0.001862562	Maximum allowable	No	
EGEN13	EGEN13	All	Site-Wide		10024-97-2	nitrous oxide		4500	450	Annual	0.001862562	Maximum allowable	No	
EGEN14	EGEN14	All	Site-Wide		10024-97-2	nitrous oxide		4500	450	Annual	0.001862562	Maximum allowable	No	
EGEN15	EGEN15	All	Site-Wide		10024-97-2	nitrous oxide		4500	450	Annual	0.001862562	Maximum allowable	No	
MSSFUG	MSSFUG	All	Site-Wide		111-76-2	2-butoxyethanol		2900	3700	1-hr	2.283333333	Maximum allowable	No	
MSSFUG	MSSFUG	All	Site-Wide		111-76-2	2-butoxyethanol		2900	3700	Annual	0.16	Maximum allowable	No	
MSSFUG	MSSFUG	All	Site-Wide		68439-46-3	alcohols, C9-C11, ethoxylated		600	60	1-hr	4.566666667	Maximum allowable	No	
MSSFUG	MSSFUG	All	Site-Wide		68439-46-3	alcohols, C9-C11, ethoxylated		600	60	Annual	0.32	Maximum allowable	No	
NGFUG	NGFUG	All	Site-Wide		75-08-1	ethyl mercaptan		1	1.3	1-hr	5.97593E-05	Maximum allowable	No	
MSSFUG	MSSFUG	All	Site-Wide		75-08-1	ethyl mercaptan		1	1.3	1-hr	0.005566091	Maximum allowable	No	
NGFUG	NGFUG	All	Site-Wide		75-08-1	ethyl mercaptan		1	1.3	Annual	0.000261746	Maximum allowable	No	
MSSFUG	MSSFUG	All	Site-Wide		75-08-1	ethyl mercaptan		1	1.3	Annual	3.84261E-05	Maximum allowable	No	

Texas Commission on Environmental Quality

Electronic Modeling Evaluation Workbook (EMEW)

NAAQS-SPL Modeling Results

Date: 8/3/2025
Permit #: TBD

Company Name: Pacifico GW LLC

Table 1. Project-Related Modeling Results for State Property Line

Pollutant	Averaging Time	GLCmax (µg/m^3)	De Minimis (µg/m^3)
SO_2	1-hr		20.42
H_2SO_4	1-hr		1
H_2SO_4	24-hr		0.3
H_2S	1-hr		2.16 *(If property is residential, recreational, business, or commercial)*
H_2S	1-hr		3.24 *(If property is not residential, recreational, business, or commercial)*

Table 2. Site-Wide Modeling Results for State Property Line

Pollutant	Averaging Time	GLCmax (µg/m^3)	Standard (µg/m^3)
SO_2	1-hr	3.1331	1021
H_2SO_4	1-hr	0.46281	50
H_2SO_4	24-hr	0.12804	15
H_2S	1-hr	0.1248	108 *(If property is residential, recreational, business, or commercial)*
H_2S	1-hr		162 *(If property is not residential, recreational, business, or commercial)*

Texas Commission on Environmental Quality

Electronic Modeling Evaluation Workbook (EMEW)

Health Effect Modeling Results

Date: 8/3/2025
Permit #: TBD

Company Name: Pacifico GW LLC

Modeled Health Effect Results (MERA Guidance):

Chemical Species	CAS Number	Averaging Time	ESL (µg/m^3)	Step 3: 10% ESL Modeled GLCmax (µg/m^3)	Step 4 - Production: 25% ESL Production GLCmax since most recent site wide modeling (µg/m^3)	Step 4 - Production: 10% ESL Production Project Only GLCmax (µg/m^3)	Step 4 - MSS: 50% ESL MSS GLCmax since most recent site wide modeling (µg/m^3)	Step 4 - MSS: 25% ESL MSS Project Only GLCmax (µg/m^3)	Step 5 - MSS Only: Full ESL MSS GLCmax (µg/m^3)	Step 5 - Hours of Exceedance: 1X ESL GLCmax MSS Hours of Exceedance	Step 5 - Hours of Exceedance: 2X ESL GLCmax MSS Hours of Exceedance	Step 5 - Hours of Exceedance: 4X ESL GLCmax MSS Hours of Exceedance	Step 5 - Hours of Exceedance: 10X ESL GLCmax MSS Hours of Exceedance	Step 6: Ratio Test Was Step 6 relied on to fall out of the MERA?
ammonia	7664-41-7	1-hr	180											
ammonia	7664-41-7	Annual	92											
RHT base oils	RHT base oils	1-hr	1000											
RHT base oils	RHT base oils	Annual	100											
diesel fuel	68334-30-5	1-hr	1000											
diesel fuel	68334-30-5	Annual	100											

Texas Commission on Environmental Quality

Electronic Modeling Evaluation Workbook (EMEW)

Health Effect Modeling Results

Date: 8/3/2025
Permit #: TBD

Company Name: Pacifico GW LLC

Modeled Health Effect Results (MERA Guidance):

Chemical Species	CAS Number	Averaging Time	ESL (µg/m^3)	Step 7: Full ESL Site Wide GLCmax (µg/m^3)	Step 7: GLCmax Receptor Type	Step 7: Full ESL Site Wide GLCni (µg/m^3)	Step 7: GLCni Receptor Type	Step 7: Full ESL Site Wide GLCni Location Easting: X (m)	Step 7: Full ESL Site Wide GLCni Location Northing: Y (m)	Step 7 - Hours of Exceedance: 1X ESL GLCni Hours of Exceedance	Step 7 - Hours of Exceedance: 2X ESL GLCmax Hours of Exceedance	Step 7 - Hours of Exceedance: 4X ESL GLCmax Hours of Exceedance	Step 7 - Hours of Exceedance: 10X ESL GLCmax Hours of Exceedance
ammonia	7664-41-7	1-hr	180	29.37109									
ammonia	7664-41-7	Annual	92	0.68175									
RHT base oils	RHT base oils	1-hr	1000	4.89094									
RHT base oils	RHT base oils	Annual	100	0.06437									
diesel fuel	68334-30-5	1-hr	1000	231.89034									
diesel fuel	68334-30-5	Annual	100	0.01066									

Texas Commission on Environmental Quality

Electronic Modeling Evaluation Workbook (EMEW)

Modeling File Names

Date: 8/3/2025
Permit #: TBD

Company Name: Pacifico GW LLC

Model File Base Name	Pollutant	Averaging Time	File Extensions	Additional File Description
PECOS_FSTDRT20M	All	All	*.pfl, *.sfc	surface and upper air met files
aersurface	All	All	*.inp, *out	AERSURFACE input and output files
Pacifico_2020_30SO2	SO2	1-hr	*.dta, .lst, .grf, .sum	project / side-wide
Pacifico_2020_H2S	H2S	1-hr	*.dta, .lst, .grf, .sum	project / side-wide
Pacifico_2020_H2SO4	H2SO4	1-hr	*.dta, .lst, .grf, .sum	project / side-wide
Pacifico_2020_H2SO4	H2SO4	24-hr	*.dta, .lst, .grf, .sum	project / side-wide
Pacifico_2020_01NH3	ammonia	1-hr	*.dta, .lst, .grf, .sum	project / side-wide
Pacifico_2020_99NH3	ammonia	Annual	*.dta, .lst, .grf, .sum	project / side-wide
Pacifico_2020_01LUBE	RHT base oils	1-hr	*.dta, .lst, .grf, .sum	project / side-wide
Pacifico_2020_99LUBE	RHT base oils	Annual	*.dta, .lst, .grf, .sum	project / side-wide
Pacifico_2020_01DIES	diesel fuel	1-hr	*.dta, .lst, .grf, .sum	project / side-wide
Pacifico_2020_99DIES	diesel fuel	Annual	*.dta, .lst, .grf, .sum	project / side-wide

Table 1F
Air Quality Application Supplement
Texas Commission on Environmental Quality

Permit Number:	TBD
Application Submittal Date:	August 4, 2025
Company:	Pacifico GW LLC
Regulated Entity Number:	RN: TBD
Named Source (Y/N):	☐ Yes ☒ No
City:	Fort Stockton (nearest city)
County:	Pecos
Permit Activity:	☒ New Source ☐ Modification

Complete for all Pollutants with a Project Emission Increase.

Questions	Ozone VOC	Ozone NO_X	CO	PM	PM_{10}	$PM_{2.5}$	NO_x	SO_2	CO_2e[1]	H_2SO_4[1]
Is nonattainment potentially applicable? (Y/N)	No	No	No	No	No	No	No	No	No	No
Is PSD potentially applicable? (Y/N)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Existing site PTE (tpy)?	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total project emissions increase (tpy from Table 2F)?	838	2,830	5,955	999	995	991	2,830	398	33,212,285	61
Is the existing site a major source? (Y/N)	No	No	No	No	No	No	No	No	No	No
If not, is the project a major source by itself? (Y/N)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
If site is major source, is the project increase significant? (Y/N)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Net contemporaneous change, including proposed project, from Table 3F (tpy)?	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Major NSR Applicable? (Y/N)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

[1] Other pollutants. [Pb, H_2S, TRS, H_2SO_4, Fluoride excluding HF, Greenhouse Gases as CO_2e, etc.].

Table 1F
Air Quality Application Supplement
Texas Commission on Environmental Quality

If netting required, estimated start of construction date (MM/DD/YR):	NA
Beginning of Contemporaneous Period, 5 years prior to start of construction (MM/DD/YR):	NA
End of Contemporaneous Period, the start of operation date (MM/DD/YR):	NA#

Texas Commission on Environmental Quality
Table 2
Material Balance

This material balance table is used to quantify possible emissions of air contaminants and special emphasis should be placed on potential air contaminants, for example: If feed contains sulfur, show distribution to all products. Please relate each material (or group of materials) listed to its respective location in the process flow diagram by assigning emission point numbers (taken from the flow diagram) to each material.

List every material involved in each of the following groups	Emission Point No. from Flow Diagram	Process Rate[1] Check appropriate column at right to indicate process rate method.	Measurement	Estimation	Calculation
Raw Materials - Input					
Fuels - Input	Natural Gas Diesel (ULSD)	566,972,625 MMBtu/yr 1,360,000 gallons/yr			X
Products and By-Products - Output	Electricity	Approximately 5,000 MW			X
Solid Wastes - Output					
Liquid Wastes - Output					
Airborne Waste (Solid) - Output		See PI-1 Workbook			X
Airborne Wastes (Gaseous) - Output		See PI-1 Workbook			X

[1] Specify the process rate of the facility using conventional engineering units (e.g., bbl/d, lb/yr, SCFM), and indicate the units next to each number. Standard Conditions: are 68°F 14.7 psia (30 Texas Administrative Code, Section 101.1(99).