Florida Gas Transmission Company

A Southern Union/El Paso Affiliate

5444 Westheimer Road Houston, TX 77056-5306

P.O. Box 4967 Houston, TX 77210-4967 713.989.7000

November 26, 2008

UPS Overnight

RECEIVE

BUREAU OF AIR REGULATION

Ms. Trina Vielhauer, Chief Bureau of Air Regulation Florida Department of Environmental Protection 2600 Blairstone, MS 5500 Tallahassee, FL 32399-2400

Phone: 850-921-9504

Reference:

Subject:

Facility: 0170035

Compressor Station No. 26, Citrus County

Dear Ms. Vielhauer

Application for Air Construction Permit

Florida Gas Transmission Company (FGT) is proposing to install a new 20,500 hp natural gas fired compressor turbine at Compressor Station No. 26 located in Citrus County. The facility is currently a minor source under both New Source Review and Title V definitions, but increases in emissions from the proposed modifications will make the facility a major source under Title V. It will remain a minor source for NSPS purposes. Therefore, a state only construction permit is required. FGT is also installing two new emergency generators at the above referenced facility. An initial Title V Permit application will be submitted independently.

Enclosed is an Application with supporting documentation for an Air Construction Permit for the proposed modifications. A processing fee of \$2250.00 is attached.

If you have any questions or need additional information, please call me at (713) 989-7459.

Sincerely,

Charles Wait

Principal Engineer

CC: Arnold L. Eisenstein
Frank Diemont
Kevin McGlynn, P.E.
Duane Pierce, AQMcs, LLC
Compressor Station No. 26

Application for Air Permit to Construct

Florida Gas Transmission Company, LLC Phase VIII Expansion Project Quincy Compressor Station No. 26 Lecanto, Citrus County, Florida Facility No. 0170035

November 2008

Table of Contents

1.0	INT	RODUCT	TION	1
2.0	PR	OJECT D	ESCRIPTION	3
	2.1 2.2 2.2.1 2.2.2 2.2.3 2.2.4 2.2.5 2.2	Existing Propose New C New E Suppo New S Fugiti	Operations	3777
3.0			RY ANALYSIS	
J.U	3.2		Regulations Review	
	3.1.1 3.1.2	Class PSD A	ification of Ambient Air Quality	13 14
	3.1.3 3.1.4		nttainment New Source Review (NNSR) Applicability Cability of New Source Performance Standards (NSPS)	
	3.1.5	Applic	cability of National Emission Standards for Hazardous Air Pollutants	s
	3.1.6		cability of Title V	
	3.2		State Air Quality Regulations	
	3.2.1		52-210.300 Permits Required	
	3.2.2		52-204.240 Ambient Air Quality Standards	
	3.2.3		52-296.320(2) Objectionable Odors	
	3.2.4		62-296.320(4)(b)1 General Particulate Emission Limiting Standards	
4.0	RE	FERENCI	ES	20
Atta	chme	nt A	DEP Forms	
	chme		Process Flow Diagram	
Atta	chme	nt C	Precautions to Prevent Emissions of Unconfined Particulate Ma	tter
	chme		Plot Plan	
	chme		Vendor Information	
	chme		Calculations	
Atta	chme	nt G	Fuel Analysis	
Atta	chme	nt H	Exempt Sources List	

List of Tables

Table 2-1 Summary of Existing Compressor Engines	4
Table 2-2 Proposed New Turbine (2603) Specifications and Stack Parameters	5
Table 2-3 Proposed New Turbine (2603) Compressor Engine Emissions	
Table 2-4 Proposed Emergency Generator Engines Specifications and Stack Parameters	
Table 2-5 Emissions from Each Proposed Generator Engine	
Table 2-6 New Storage Tanks for Compressor Station No. 26	
Table 2-7 VOC Fugitive Emission Calculations and Summary	
Table 2-8 Potential Annual Emissions (tpy) Summary	
Table 3-1 National and State Ambient Air Quality Standards (μg/m³)	
Table 3-2 Applicability of PSD Significant Emission Rates	
Table 3-3 Applicability of New Source Performance Standards Subpart KKKK	
Table 3-4 Applicability of New Source Performance Standards Subpart JJJJ	
List of Figures	
Figure 1-1 Location Map	2

1.0 INTRODUCTION

Florida Gas Transmission Company (FGT) is proposing to expand its existing natural gas pipeline facility near Lecanto, in Citrus County, Florida (Compressor Station No. 26). This proposed modification is part of FGT's Phase VIII Expansion Project, aimed at increasing the supply capacity of FGT's network servicing domestic suppliers, commercial, and industrial customers in Florida. The scope of work for the Phase VIII Expansion Project includes expansion through the addition of state-of-the-art compressor engines at nine existing compressor stations within the States of Florida and Alabama. Three compressor stations within Florida will receive electric driven turbine compressors and five compressor stations within Florida will receive natural gas-fired turbine compressors.

Compressor Station No. 26 is located in Citrus County, Florida, northwest of the town of Lecanto on North Maylen Road 0.4 miles north of Highway 44. Figure 1-1 shows the location of the existing compressor station.

The proposed expansion consists of the installation of a 20,500 bhp natural gas-fired turbine. The turbine will be a Solar Titan 130-20502S unit and will be used solely for transporting natural gas by pipeline for distribution to markets in Florida.

Additionally, FGT is also proposing to add two new emergency generators at this facility. Each of the two new generators will be powered by a 454 bhp, gas-fired reciprocating compressor engine which will meet the new 40 CFR Subpart JJJJ standards.

Based on projected new annual emission rates, the proposed modifications would result in a NO_X potential emission increase of 37.5 tpy and a CO potential emission increase of 38.3 tpy; therefore, this modification will not constitute a significant modification at an existing major stationary source under Prevention of Significant Deterioration (PSD) regulations. Since there will be no PSD significant increase in the emissions of any contaminant, a state only construction permit is required.

This narrative contains three additional sections. Descriptions of the existing operation at FGT's Compressor Station No. 26, the proposed new engine and new emergency generators are presented in Section 2.0. The air quality review requirements and applicability of state and federal regulations are discussed in Section 3.0. References are included in Section 4.0. FDEP permit application forms are provided in Attachment A. Attachment B contains a process flow diagram, Attachment C contains Precautions to Prevent Emissions of Unconfined Particulate Matter, Attachment D contains a plot plan of the facility and Attachment E provides vendor information. Attachment F provides emission calculations, Attachment G a recent fuel analysis and Attachment H a list of exempt sources.

PINE RIDGE COUNTRY ESTATES (491) OAK HILL EST. 484 TIMBERLINE ESTATES PARADISE POINT TRINITY COMMUNITY CHURCH CRYSTAL RIVER DELIMITED AREA LECANTO CRYSTAL RIVER-HOMOSASSA AIR TERMINAL COMP. STA. 26 OAK RANCH (PVT.) (4) HERITAGE HILLS LECANTO CAMPBELL **WOODS** 490 491 HOMOSASSA FLORIDA GAS TRANSMISSION COMPANY **SPRINGS** Houston, Texas COMPRESSOR STATION NO. 26 The locations of FGTCo, facilities shown on this map are approximate. Please contact the local FGTCa, office to determine the actual locations of its facilities (see phone list). CITRUS COUNTY, FLORIDA

Figure 1-1 Location Map

2.0 PROJECT DESCRIPTION

A plot plan of FGT's Compressor Station No. 26, showing the location of the plant boundaries, and the location of the new turbine and generators is presented in Attachment B. The following sections provide a description of the existing operations at this location, as well as a description of the proposed project.

2.1 Existing Operations

FGT's existing Compressor Station No. 26 consists of one 7,000 bhp (ISO) natural gas-fired turbine. Table 2-1 summarizes engine manufacturer, model, and the date of installation for each of the existing engines. Compressor Engine 2601 was initially installed in 1993 at 6500 bhp. There was a Compressor Engine 2602 that was initially installed in 2001, but has been replaced by an electric drive unit.

The existing facility also has supporting equipment including lube and used oil storage tanks, air compressors and emergency generators.

2.2 Proposed Modifications

FGT proposes to increase the horsepower capacity of Compressor Station No. 26, as part of the Phase VIII Expansion Project. This will involve adding a new gas-fired turbine (Compressor Engine 2603). The new engine will be used to increase the volumetric delivery capacity by driving a gas compressor that is a part of a gas transmission line that transports natural gas from source wells in Texas and Louisiana for delivery throughout Florida. Without the proposed modifications, it would not be possible to increase the volumetric delivery capacity necessary to meet both short and long-term demands for natural gas in Florida.

In addition, as part of the project, two new emergency generators will be installed. Each will be powered by a 454 bhp, gas-fired, 4-stroke, rich burn reciprocating compressor engine equipped with emissions that will be controlled to meet the new 40 CFR Subpart JJJJ standards as required. Details of the changes are described in the following sections.

Table 2-1 Summary of Existing Compressor Engines

Engine #	Date of Installation	Туре	Manufacturer	Model #	Brake Horse Power (bhp)
2601	1993	Turbine	Solar	Taurus 60 T- 7300S	7,000

2.2.1 New Compressor Turbine

FGT proposes to install one new natural gas-fired turbine engine compressor unit at Compressor Station No. 26. The engine is a Solar Titan 130 - 20502S turbine compressor unit rated at 20,500 bhp (ISO). Fuel will be exclusively natural gas from FGT's natural gas pipeline. Engine specifications and stack parameters for the proposed engine are presented in Table 2-2.

Table 2-2 Proposed New Turbine (2603) Specifications and Stack Parameters

Parameter	Design
Compressor Engine	2603
Туре	Gas Turbine
Manufacturer	Solar
Model	Titan 130 20502S
Unit Size (shaft)	19,465 bhp (ISO)
Specific Heat Input (LHV) ^a	7,326 Btu/hp-hr
Specific Heat Input (HHV) ^b	8,112 Btu/hp-hr
Fuel Flow (LHV) ^a	142.59 MM Btu/hr
Fuel Flow (HHV) ^a	157.89 MM Btu/hr
Maximum Fuel Consumption ^c .	0.1518 MMscf/hr
Speed	8,351 rp <u>m</u>
Stack Parameters	
Stack Height	55 ft
Stack Diameter	7.5 ft x 8 ft (rectangular)
Exhaust Gas Flow	393,142 lb/h
	232,782 acfm
Exhaust Temperature	944 °F
Exhaust Gas Velocity	64.7 ft/sec

NOTE:

actual cubic feet per minute. acfm

bhp brake horsepower.

Btu/hp-hr °F British thermal units per brake horsepower per hour.

degrees Fahrenheit.

ft feet.

ft/sec feet per second.

MMscf/hr = million standard cubic feet per hour.

revolutions per minute. rpm

Hourly and annual emissions of regulated pollutants from the proposed new turbine at ISO conditions are presented in Table 2-3. Emissions of oxides of nitrogen (NO_x), carbon monoxide (CO) and non-methane hydrocarbons (NMHC) or volatile organic compounds (VOC) are based on the engine manufacturer's supplied data (See Attachment C). These values are based on ISO conditions. Other factors such as inlet, outlet losses and ambient temperature can affect these rates.

Typically, turbine vendors do not provide information on particulate matter (PM), sulfur dioxide (SO2) or hazardous air pollutant (HAP) emissions; therefore, PM and HAP emissions are based

AQMes, LLC Page 5

^a Based on vendor provided lower heat rate value (LVH) of 7,326 Btu/hp-hr, a lower heating value of 939.2 Btu/scf and

^b Based on natural gas with a HHV of 1040 British thermal units per standard cubic foot (Btu/scf).

^c While producing 19,465 bhp at ISO conditions and with gas having HHV of 1040 Btu/scf

upon USEPA publication AP-42 Section 3.1 (USEPA, 2000). Emissions of SO₂ are based on FGT's Federal Energy Regulatory Commission (FERC) certificate limit of 10 grains sulfur per 100 cubic feet of natural gas.

Table 2-3 Proposed New Turbine (2603) Compressor Engine Emissions

Pollutant	Emission Factor	Reference	lb/hr	TPY
Nitrogen Oxides ^a	8.52 lb/hr	Manufacturer Data	8.52	37.31
Carbon Monoxide ^a	8.64 lb/hr	Manufacturer Data	8.64	37.86
Volatile Organic ^{a,b} Compounds	0.50 lb/hr	Manufacturer Data	0.50	2.17
Particulate Matter c	0.0066 lb/MMBtu	AP-42, Table 3.1-2a	1.04	4.56
Sulfur Dioxide ^c	10 grains/100 scf	FERC Limit	4.34	19.00
HAPS °	0.001027 lb/MMBtu	AP-42, Table 3.1-2a	0.16	0.71

^a Emissions based on vendor provided values at ISO conditions and inlet and exhaust losses at 4" of H₂O.

^b Assumes that VOCs are 10% of THC

^c Emissions based on vendor provided heat rate at higher heating value.

2.2.2 New emergency Generators

The new generators will be powered by natural gas fueled, rich burn Generac Model SG300 rated at 300 kW (454 bhp). Engine specifications and stack parameters for the proposed engines are presented in Table 2-4 and emissions are presented in Table 2-5.

2.2.3 Support Equipment

In addition to the compressor engine, some support equipment will be installed at the site. They include:

- One compressor building
- An auxiliary building
- A control building

The locations of the structures are shown on the facility plot plan contained in Attachment D. The compressor buildings, each housing a new turbine, have approximate dimensions of 52 feet wide by 80 feet long by 26 feet high. The approximate dimensions of the auxiliary building will be 32 feet wide by 48 feet long by 14 feet high and the approximate dimensions of the control building will be 14 feet wide by 55 feet long by 12 feet high

2.2.4 New Storage Tanks

Three new storage tanks will be installed at Compressor Station No. 26. The tanks are a 500 gallon oily water storage tank, a 100 barrel condensate storage tank and a 5000 gallon pressurized odorant tank. Specifications for these tanks are listed in Table 2-5. Emissions were calculated with the U.S EPA's (USEPA) Tank 4.0 D. Details of the calculations can be found in Attachment F. These emission units are exempt under Rule 62-210.300(3)(b), F.A.C.

2.2.5 Fugitive Emissions

Potential new emissions from Compressor Station No. 26 also include fugitive emissions from the new valves and flanges that will be in gas service. These fugitive emissions have been estimated using USEPA factors for components in gas service at oil and gas facilities (EPA publication EPA-453/R-95-017, November 1995, "Protocol for Equipment Leak Emission Estimates"). Table 2-7 lists the quantities new components to be added as part of the Phase VIII Expansion Project and an estimate of the fugitive emissions from these sources.

Table 2-4 Proposed Emergency Generator Engines Specifications and Stack Parameters

Parameter	Design
Compressor Engine	Gen03/Gen04
Type	Natural Gas, Rich Burn Reciprocating
Manufacturer	Generac
Model	SG300
Unit Size	454 bhp
Heat Input	4.26 MM Btu/hr
Fuel Consumption ^a	0.00410 MMscf/h
Speed	2300 rpm
Stack Parameters	
Stack Height	20 ft
Stack Diameter	0.67 ft
Exhaust Gas Flow	5,300 lb/hr
Exhaust Gas Flow	2,911 acfm
Exhaust Temperature	1490 °F
Exhaust Gas Velocity	138.85 ft/sec

NOTE:

actual cubic feel per minute. acfm

= brake horsepower. bhp

= British thermal units per hour. Btu/hr

٥Ē = degrees Fahrenheit.

ft = feet.

feet per second.
pound per hour.
revolutions per minute.
standard cubic feet per hour ft/sec = Lb/hr =

rpm

scf/h

^a Based on heating value for natural gas of 1040 British thermal units per standard cubic foot (Btu/scf).

Table 2-5 Emissions from Each Proposed Generator Engine

Uncontrolled				Controlled			
Pollutant	Emission Factor	lb/hr ^a	TPY a. b	Emission Factor	lb/hr ^a	TPY a. b	Reference
Nitrogen Oxides	2.12 g/hp-hr	2.12	0.11	2.0 g/hp-hr	2.00	0.109	NSPS
Carbon Monoxide	118.3 g/hp-hr	.118.41	5.92	4.0 g/hp-hr	4.03	0.20	NSPS
Volatile Organic Compounds c	0.29 g/hp-hr	0.29	0.01	0.29 g/hp-hr	0.29	0.01	NSPS
Particulate Matter	0.01941 lb/MMBtu	0.083	<0.01	0.01941 lb/MMBtu	0.083	<0.01	AP-42, Table 3.2-3
Sulfur Dioxide	10 grains/100 scf	0.117	0.01	10 grains/100 scf	0.117	0.01	FERC Limit
Hazardous Air Pollutants	0.0234 lb/MMBtu	0.10	0.01	0.0234 lb/MMBtu	0.10	0.01	AP-42, Table 3.2-3

<sup>a. The manufacturer has not finalized design at this time. Actual values may be lower.
b. Based on 454 bhp, 100 hours of operation per year
c. assumed VOC 10% of UHC/THC</sup>

Table 2-6 New Storage Tanks for Compressor Station No. 26

Tank Name	Condensate Tank	Oily Water Tank	Odorant Tank
Type of Tank	Vertical, Cone Roof	Vertical, Cone Roof	Horizontal
Contents	Hydrocarbon Liquids	Drain water from washings; oily water	Odorant
Dimensions	8' dia x 12' high	4' dia x 6' high	10' dia x 12' long
Capacity	100 Barrels	500 Gallons	5000 Gallons
Paint Color	White	White	White
Maximum Annual Throughput	500 Gallons	500 Gallons	5000 Gallons
Pressurized	No	No	Yes
VOC Emissions (tpy)	0.01	<0.001	0,00

Table 2-7 VOC Fugitive Emission Calculations and Summary

New Components

Component	Service	Component	Emissions *	NM/NE	Emissions
			Factor		
		Count	(ton/yr)	Fraction	(ton/yr)
Valves	Gas	74	0.0434606	0.05	0.1608
Connector	Gas	. 0	0.0019316	0.05	0.0000
Flanges	Gas	180	0.0037666	0.05	0.0339
Open-Ended Line	Gas	0	0.0193158	0.05	0.0000
Pumps	Gas	0	0.023179	0.05	0.0000
Other	Gas	0	0.0849895	0.05	0.0000
Valves	Light Oil	0	0.0241448	1.00	0.0000
Connector	Light Oil	0	0.0020282	1.00	0.0000
Flanges	Light Oil	0	0.0010624	1.00	0.0000
Open-Ended Line	Light Oil	0	0.0135211	1.00	0.0000
Pumps	Light Oil	0	0.1255527	1.00	0.0000
Other .	Light Oil	0	0.0724343	1.00	0.0000
Valves	Heavy Oil	0	0.0000811	1.00	0.0000
Connector	Heavy Oil	0	0.0000724	1.00	0.0000
Flanges	Heavy Oil	0	0.0000038	1.00	0.0000
Open-Ended Line	Heavy Oil	0	0.0013521	1.00	0.0000
Other	Heavy Oil	0	0.0002994	1.00	0.0000
				TOTAL:	0.1947

^{* *}EPA publication EPA-453/R-95-017, November 1995, "Protocol for Equipment Leak Emission Estimates

2.2 Emissions Summary

The total changes in emissions resulting from the project are listed on Table 2-8. The calculations used to estimate these emissions are presented in Attachment D.

Table 2-8 Potential Annual Emissions (tpy) Summary

SOURCE DESCRIPTION		NO _x	со	VOCª	SO ₂	PM	HAPs		
EXISTING FACILITY									
2601	7,000 bhp Turbine Engine	24.5	29.8	0.9	7.5	1.8	0.3		
GEN02	587 bhp Recip. Engine ^b	2.2	0.6	0.01	0.15	0.2	0.0		
	Other Sources: c	0.0	0.0	0.3	0.0	0.0	0.0		
EXISTING	S ANNUAL POTENTIALTOTALS:	26.7	30.4	1.2	7.7	2	0.3		

PROPOSED MODIFIED FACILITY									
2601	7,000 bhp Turbine Engine	24.5	29.8	0.9	7.5	1.8	1.8		
2603	20,500 hp Turbine Engine - New	37.3	37.8	2.2	19.0	4.6	0.7		
GEN02	443 bhp Recip. Engine ^b	2.2	0.6	0.0	0.2	0.2	0.0		
GEN03	454 bhp Recip. Engine – New ^d	0.1	0.2	0.0	0.0	0.0	0.0		
GEN04	454 bhp Recip. Engine – New ^d	0.1	0.2	0.0	0.0	0.0	0.0		
	Other Sources: c	0.0	0.0	0.5	0.0	0.0	0.0		
PROPOSED ANNUAL POTENTIAL TOTALS:		64.2	68.7	3.6	26.7	6.6	2.5		

NET CHANGES IN POTENTIAL EMISSIONS:	37.5	38.3	2.4	19	4.6	2.2
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a VOC = Non-methane/non-ethane HC

b Based on 500 hr/yr

c Other Sources Includes ancillary equipment, storage tanks and equipment leaks

d Based on 100 hr/yr

3.0 REGULATORY ANALYSIS

This section presents a review of federal and Florida State air quality regulations, which govern the operations and proposed modifications to be conducted at Compressor Station No. 26.

3.2 Federal Regulations Review

The federal regulatory programs administered by the USEPA have been developed under the authority of the Clean Air Act. The following subsections review the essential elements of the federal regulatory program and the impact they have on the operations and proposed modifications at Compressor Station No. 26.

3.1.1 Classification of Ambient Air quality

The 1970 Amendments to the CAA gave the USEPA specific authority to establish the minimum level of air quality that all states would be required to achieve. These minimum values or standards were developed in order to protect the public health (primary) and welfare (secondary). The federally promulgated standards and additional state standards are presented on Table 3-1.

Areas of the country that have air quality equal to or better than these standards (i.e., ambient concentrations less than a standard) are designated as "Attainment Areas", while those where monitoring indicates air quality is worse than the standards are known as "Non-attainment Areas." The designation of an area has particular importance for a proposed project as it determines the type of permit review to which the application will be subject.

Major new sources or major modifications to existing major sources located in attainment areas are required to obtain a PSD permit before initiation of construction. Similar sources located in areas designated as non-attainment or that adversely impact such areas undergo more stringent Non-attainment New Source Review (NNSR). In either case, it is necessary, as a first step, to determine the air quality classification of a project site.

All areas of all states are classified as either attainment, non-attainment or unclassifiable for each criteria pollutant. Citrus County in designated as unclassifiable or attainment for all criteria pollutants. These designations were obtained from 40 CFR 81.310, and 62-204.340 F.A.C.

Table 3-1 National and State Ambient Air Quality Standards (μg/m³)

POLLUTANT	AVERAGING PERIOD		ANDARDS SECONDARY	FLORIDA STANDARDS
PM ₁₀	24-hour ¹	150	150	150
	Annual ²	50	50	50
SO ₂	3-hour ¹		1,300	1,300
	24-hour ¹	365		260
	Annual ²	80		60
CO	1-hour ¹		40,000	40,000
	8-hour ¹	10,000		10,000
NO ₂	Annual ²	100	100	100
O ₃	1-hour ³	235	235	235

- 1. Not to be exceeded more than once per year.
- 2. Never to be exceeded.
- 3. Not to be exceeded on more than 3 days over 3 years.

Sources: 40 CFR 50; 36FR22384; Chap. 17-2.300.

The designation of Unclassifiable indicates that there is insufficient monitoring data to prove that the area has attained the federal standards; however, the limited data available indicate that the standard has been achieved. Areas with this classification are treated as attainment areas for permitting purposes. Since Citrus County is considered in attainment for all pollutants, the proposed new emissions are potentially subject to PSD review and not non-attainment review.

3.1.2 PSD Applicability

The 1977 CAA Amendments added Part C: Prevention of Significant Deterioration to the Act. This part required proposed new major stationary sources or existing sources planning a major modification in an area that has attained the National AAQS, to conduct a preconstruction review that includes a detailed analysis of the impacts from the source's emissions.

Federal air quality permitting regulations for attainment areas are codified in the Code of Federal Regulations (CFR), Title 40- Protection of the Environment, Part 52.21 - Prevention of Significant Deterioration (40 CFR 52.21). Major revisions to the rules were finalized on December 31, 2002, and became effective on March 3, 2003. State of Florida requirements are located at 62-212.400 F.A.C.

For the PSD regulations to apply to a given project, the project's potential to emit must constitute a new major stationary source or a major modification to an existing major stationary source. A major stationary source is defined as any of the 28 sources identified in 40 CFR 52.21 that has a potential to emit 100 tons or more per year of any regulated pollutant, or any other stationary source that has the potential to emit 250 tons or more per year of a regulated pollutant. "Potential to emit" is determined on an annual basis after the application of air pollution control equipment, or any other federally enforceable restriction.

"Significant" emission rates are defined as amounts equal to or greater than the emission rates given in Table 3-2.

Table 3-2 Applicability of PSD Significant Emission Rates

Pollutant	Emission Rate Tons/Year
Carbon Monoxide	100
Nitrogen Oxides	40
Sulfur Dioxide	40
Particulate Matter (PM/PM ₁₀)	25/15
Ozone (VOC)	40
Lead	0.6
Fluorides	3
Reduced Sulfur including Hydrogen Sulfide	10
Total Reduced Sulfur including Hydrogen Sulfide	10
Sulfuric Acid Mist	7
Lead	0.6
Mercury	0.1
VOC = Volatile Organic Compounds Sources:40 CFR 52.21(b)(23); Table 212.400-2 62-212 F.A.C.	

Proposed project increases for modified sources are determined for each pollutant and are equal to the actual emissions (average of the actual emissions over any 24 month of the ten years immediately prior to the proposed project) subtracted from the proposed future actual emissions. For new sources the emission increase is equal to the potential to emit (PTE) of the source. Fugitive emissions are only included in the potential to emit if the source is one of the 28 named source categories in 40 CFR 52.21(b)(1) or belongs to a stationary source category that is subject to an NSPS proposed prior to August 7, 1980 or that is subject to an NESHAPS promulgated prior to August 7, 1980.

Netting is only required for each regulated pollutant for which the proposed project increases

(decreases are not considered yet) result in a significant increase in emissions. Netting is performed by identifying both the creditable and contemporaneous increases and the reductions in emissions. The contemporaneous period is defined as the period of time from five years prior to the estimated start of construction through estimated start of operation. Since this project does not result in a significant increase, netting is not required.

To summarize, since Compressor Station No. 26 is not one of the 28 named source categories, and emits <250 TPY of each regulated pollutant and the proposed new emissions are not major in themselves, it is not considered a major source or major new source; therefore, the compressor station is not subject to PSD pre-construction review.

3.1.3 Non-attainment New Source Review (NNSR) Applicability

Based on the current non-attainment provisions, all new major stationary sources, or major modifications to such sources, located in a non-attainment area must undergo non-attainment New Source Review, if they have the potential to emit above an NSR significant threshold. For major new sources or major modifications in an attainment or unclassifiable area, the non-attainment provisions apply if the source or modification is located within the area of influence of a non-attainment area. The area of influence is defined as an area, which is outside the boundary of a non-attainment area, but within the locus of all points that are 50 kilometers outside the non-attainment area.

Compressor Station No. 26 is located in an area that is designated as either attainment or not classifiable for all criteria pollutants and is not located in an area of influence outside a non-attainment area. Additionally, Compressor Station No. 26 is not a major source; therefore, this compressor station is not subject to federal non-attainment New Source Review.

3.1.4 Applicability of New source Performance Standards (NSPS)

Standards of Performance for New Sources are published in 40 CFR 60. All Standards apply to all new sources within a given category, regardless of geographic location or ambient air quality at the location.

40 CFR 60 Subpart KKKK

The new turbine to be installed at Compressor Station No. 26 is subject to Subpart KKKK (40 CFR 60.4300), Standards of Performance for Stationary Combustion Turbines, because it will have a maximum heat input at peak load of >10.7 gigajoules/hour (10 MMBtu/hr) based on the higher heating value of the natural gas fuel and because construction will commence after 18

February 2005. This regulation establishes emission limits for NO_X and SO₂ and requires performance testing and monitoring of fuel sulfur.

The NO_x emission limit for Subpart KKKK is based on Table 1 of 40 CFR 60 Subpart KKKK. The limit for new turbines firing natural gas and with a heat input at peak load greater than 50 MMBtu/h but not more than 850 MMBtu/h is 25 ppm at 15% O_2 . SO_2 emissions are limited to 0.060 lb SO_2 /MMBtu heat input. For this turbine the limit will be 9.11 lb/hr.

Table 3-3 summarizes the NSPS applicability for the proposed gas engines. FGT will also be required to comply with all recordkeeping and monitoring requirements of this regulation.

The turbine will meet the NSPS for NO_X of 25 ppmv (i.e., manufacturer's estimation of 15 ppmv), and for SO_2 of 9.11 lb/nr (estimated for this turbine to be 4.17 lb/hr).

40 CFR 60 Subpart JJJJ

The new emergency generator engines are subject to 40 CFR Subpart 60 Subpart JJJJ Standards of Performance for Stationary Spark Ignition Internal Combustion Engines. Owners and operators of stationary spark ignition internal combustion engines with maximum engine power greater than or equal to 100 hp must comply with the standards for NOX, CO and VOC established in Table 1 of Subpart JJJJ. The proposed generator engines will comply with the applicable standards. FGT will also be required to comply with all recordkeeping and monitoring requirements of this regulation.

Table 3-4 summarizes the NSPS applicability for the proposed gas-fired emergency generator engines.

Table 3-3 Applicability of New Source Performance Standards Subpart KKKK

NSPS			Heat Input	Equipment Design	NSPS Emission	Equipment
Regulations	Fuel	Pollutant	Applicability	Maximum	Limits	Emissions
60.4320(a)	Gas	NO _x	>50 MM Btu/hr	158 MM Btu/hr	25 ppm _√	15 ppm _v
60.4330(a)(2)	Gas	SO ₂	>50 MM Btu/hr	158 MM Btu/hr	9.48 lb/hr	4.34 lb/hr

Table 3-4 Applicability of New Source Performance Standards Subpart JJJJ

NESHAP Regulations	Fuel	Pollutant	Equipment Design Maximum	NSPS Emission Limits (g/hp-hr)	Equipment Emissions (G/hp-hr)
60.4230 Table 1	Gas	NO ₂	100 hp and higher	2.0	2.00
60.4230 Table 1	Gas	CO	100 hp and higher	4.0	4.00
60.4230 Table 1	Gas	VOC	100 hp and higher	1.0	0.29

3.1.5 Applicability of National Emission Standards for Hazardous Air Pollutants (NESHAPS)

Section 112 of the Clean Air Act required the USEPA to list categories and subcategories of major sources and area sources of hazardous air pollutants (HAP) and to establish NESHAPS for the listed source categories and subcategories. NESHAPS require all major sources to meet HAP emission standards reflecting the application of the maximum achievable control technology (MACT). Compressor Station 26 is not a major source of HAPS and is, therefore, not subject to any applicable NESHAPS.

3.1.6 Applicability of Title V

In 1990, Congress established an operating permit program under Title V of the Clean Air Act Amendments. This operating permit program streamlines the way federal, state, tribal, and local authorities regulate air pollution by consolidating all air pollution control requirements into a single, comprehensive "operating permit" that covers all aspects of a source's year-to-year air pollution activities.

All "major" stationary sources emitting certain air pollutants are required to obtain operating permits. Generally, major sources include those stationary facilities that emit 100 tons or more per year of a regulated air pollutant. Smaller sources are considered "major" in areas that are not meeting the national air quality standards for a particular pollutant. Also, sources of toxic air pollutants (i.e., any source that emits more than 10 tons per year of an individual toxic air pollutant or more than 25 tons per year of any combination of toxic air pollutants) are considered major.

Currently CS 26 is not a major source under Title V definitions and will remain so after the

addition of the new emissions proposed by this project; therefore, CS 26 will not be required to obtain a Title V operating permit.

3.2 Florida state air Quality Regulations

Compressor Station No. 26 is currently operating under Permit No.0041004-014-OA and is subject to the provisions of that permit. Rule 62, F.A.C., contains the air quality rules and regulations for the State of Florida. The primary federal regulations that affect Compressor Station No. 26 have been incorporated into or are referenced by these rules. The significant state regulations that are applicable to the new emission units are briefly listed below.

3.2.1 Rule 62-210.300 Permits Required

FGT is required to obtain a construction permit prior to modification of an emission unit. This requirement is being met by the submittal of this application. After the modification, FGT will be required to modify the state operating permit to incorporate the new sources.

3.2.2 Rule 62-204.240 Ambient Air Quality Standards

FGT must not violate any of the ambient air quality standards listed under this rule. The proposed new emissions will not violate any air quality standards.

3.2.3 Rule 62-296.320(2) Objectionable Odors

This rule prohibits the discharge of pollutants that will cause or contribute to an objectionable odor. There will be no odors from the proposed changes.

3.2.4 Rule 62-296.320(4)(b)1 General Particulate Emission Limiting Standards

FGT is prohibited from allowing the new compressor engine to discharge into the atmosphere the emissions of air pollutants, the density of which is equal to or greater than that designated as Number 1 on the Ringelmann Chart (20 percent opacity). The new engines will not violate this standard.

AOMes, LLC Page 19

4.0 REFERENCES

- U.S. Environmental Protection Agency (USEPA). 1980. PSD Workshop Manual. Research Triangle Park, NC.
- U.S. Environmental Protection Agency (USEPA). 1985. Protocol for Equipment Leak Emission Estimates, EPA-453/R-95-017
- U.S. Environmental Protection Agency (USEPA). 2000. Compilation of Air Pollutant Emission Factors, Volume I: Stationary Point and Area Sources (5th Ed.) AP-42. Supplement E, Research Triangle Park, NC.

Attachment A

DEP Forms



Department of Environmental Protection RECEIVED

Division of Air Resource Management APPLICATION FOR AIR PERMIT - LONG FORM

BUREAU OF AIR REGULATION

I. APPLICATION INFORMATION

Air Construction Permit – Use this form to apply for an air construction permit:

- For any required purpose at a facility operating under a federally enforceable state air operation permit (FESOP) or Title V air operation permit;
- For a proposed project subject to prevention of significant deterioration (PSD) review, nonattainment new source review, or maximum achievable control technology (MACT);
- To assume a restriction on the potential emissions of one or more pollutants to escape a requirement such as PSD review, nonattainment new source review, MACT, or Title V; or
- To establish, revise, or renew a plantwide applicability limit (PAL).

Air Operation Permit – Use this form to apply for:

- An initial federally enforceable state air operation permit (FESOP); or
- An initial, revised, or renewal Title V air operation permit.

To ensure accuracy, please see form instructions.

Identification of Facility 1. Facility Owner/Company Name: Florida Gas Transmission Company, LLC 2. Site Name: Compressor Station No. 26 3. Facility Identification Number: 0170035 4. Facility Location... Street Address or Other Locator: 245 N. Maylen Road City: Lecanto County: Citrus Zip Code: 34461 5. Relocatable Facility? 6. Existing Title V Permitted Facility? ☐ Yes ☐ No Yes X No Application Contact

710	Apphenion Contact						
1.	Application Contact Name: Charles Wait						
2.	Application Contact Mailing Address						
	Organization/Firm: Florida Gas Transmission Company, LLC						
	Street Address: 5444 Westheimer						
	City: Houston State: TX Zip Code: 77056						
3.	Application Contact Telephone Numbers						
	Telephone: (713) 989 - 7459 ext. Fax: (713) 989 - 1135						
4.	Application Contact E-mail Address: charles.wait@SUG.com						

Application Processing Information (DEP Use)

1. Date of Receipt of Application:	
2. Project Number(s):0 10035-012-	AC,4. Siting Number (if applicable):

DEP Form No. 62-210.900(1) - Form

Effective: 3/16/08

Purpose of Application

This application for air permit is being submitted to obtain: (Check one)
Air Construction Permit
Air construction permit.
Air construction permit to establish, revise, or renew a plantwide applicability limit (PAL).
Air construction permit to establish, revise, or renew a plantwide applicability limit (PAL), and separate air construction permit to authorize construction or modification of one or more emissions units covered by the PAL.
Air Operation Permit
Initial Title V air operation permit.
Title V air operation permit revision.
Title V air operation permit renewal.
Initial federally enforceable state air operation permit (FESOP) where professional engineer (PE) certification is required.
Initial federally enforceable state air operation permit (FESOP) where professional engineer (PE) certification is not required.
Air Construction Permit and Revised/Renewal Title V Air Operation Permit (Concurrent Processing)
Air construction permit and Title V permit revision, incorporating the proposed project.
Air construction permit and Title V permit renewal, incorporating the proposed project.
Note: By checking one of the above two boxes, you, the applicant, are requesting concurrent processing pursuant to Rule 62-213.405, F.A.C. In such case, you must also check the following box:
I hereby request that the department waive the processing time requirements of the air construction permit to accommodate the processing time frames of the Title V air operation permit.
Application Comment

Florida Gas Transmission Company is proposing to install a new 20,500 bhp gas-fire compressor turbine and two new 454 bhp gas-fired SI ICE 4-stroke rich-burn emergency generator engines.

These proposed modifications are part of FGT's Phase VIII Expansion project, aimed at increasing the supply capacity of FGT's network servicing domestic, commercial, and industrial customers in Florida.

A-2

DEP Form No. 62-210.900(1) - Form

Effective: 3/16/08

Scope of Application

Emissions Unit ID Number	Description of Emissions Unit	Air Permit Type	Air Permit Processing Fee
004	Turbine Compressor Engine No. 2603, 20,500 bhp ISO, Natural Gas Fired	ACID	\$2000
005	Emergency Generator Engine No. GEN04, 454 bhp, 4-stroke, rich-burn natural gas fired	ACID	\$250
006	Emergency Generator Engine No. GEN05, 454 bhp, 4-stroke, rich-burn natural gas fired	ACID	Similar Unit \$0
		-	

Application Processing Fee	
Check one: Attached - Amount: \$2,250.00	Not Applicable

Owner/Authorized Representative Statement

Complete if applying for an air construction permit or an initial FESOP.

1. Owner/Authorized Representative Name:

David Shellhouse, Vice President, Southeastern Operations

2. Owner/Authorized Representative Mailing Address

Organization/Firm: Florida Gas Transmission Company, LLC

Street Address: 2405 Lucien Way, Suite 200

City: Maitland

State: FL

Zip Code: 32751

3. Owner/Authorized Representative Telephone Numbers...

Telephone: (407) 838 - 7122

ext. Fax: (407)838-7151

4. Owner/Authorized Representative E-mail Address: dave.shellhouse@SUG.com

5. Owner/Authorized Representative Statement:

I, the undersigned, am the owner or authorized representative of the corporation, partnership, or other legal entity submitting this air permit application. To the best of my knowledge, the statements made in this application are true, accurate and complete, and any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. I understand that a permit, if granted by the department, cannot be transferred without authorization from the department.

Signature on behalf of David Shellhouse Date

DEP Form No. 62-210.900(1) – Form

Effective: 3/16/08 A-4

Application Responsible Official Certification

Complete if applying for an initial, revised, or renewal Title V air operation permit or concurrent processing of an air construction permit and revised or renewal Title V air operation permit. If there are multiple responsible officials, the "application responsible official" need not be the "primary responsible official."

1.	Application Responsible Official Name: NA			
2.	Application Responsible Official Qualification (Check one or more of the following options, as applicable):			
	For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under Chapter 62-213, F.A.C.			
	For a partnership or sole proprietorship, a general partner or the proprietor, respectively.			
	For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official.			
	The designated representative at an Acid Rain source, CAIR source, or Hg Budget source.			
3.	Application Responsible Official Mailing Address Organization/Firm:			
	Street Address:			
	City: State: Zip Code:			
4.	Application Responsible Official Telephone Numbers Telephone: () - ext. Fax: () -			
5.	Application Responsible Official E-mail Address:			
6.	Application Responsible Official Certification:			
	I, the undersigned, am a responsible official of the Title V source addressed in this air permit application. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof and all other applicable requirements identified in this application to which the Title V source is subject. I understand that a permit, if granted by the department, cannot be transferred without authorization from the department, and I will promptly notify the department upon sale or legal transfer of the facility or any permitted emissions unit. Finally, I certify that the facility and each emissions unit are in compliance with all applicable requirements to which they are subject, except as identified in compliance plan(s) submitted with this application.			
	Signature Date			

DEP Form No. 62-210.900(1) – Form Effective: 3/16/08

<u>Pr</u>	ofessional Engineer Certification
1.	Professional Engineer Name: Kevin J. McGlynn
	Registration Number: 50908
2.	Professional Engineer Mailing Address.
	Organization/Firm: Trow Engineering consultants, Inc.
	Street Address: 1200 Metropolitan Blvd. Ste. 200
	City: Tallahassee State: FL Zip Code: 32308
3.	Professional Engineer Telephone Numbers.
1	Telephone: (850) 385 - 5441 ext. 314 Fax: (850) 385 - 5523
4.	Professional Engineer E-mail Address: Kevin.mcglynn@trow.com
5.	Professional Engineer Statement:
	I, the undersigned, hereby certify, except as particularly noted herein*, that: (1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions
	(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this application for air permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and
	(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.
	(3) If the purpose of this application is to obtain a Title V air operation permit (check here, if so), I further certify that each emissions unit described in this application for air permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance plan and schedule is submitted with this application.
	(4) If the purpose of this application is to obtain an air construction permit (check here \square , if so) or concurrently process and obtain an air construction permit and a Title V air operation permit revision or renewal for one or more proposed new or modified emissions units (check here \square , if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.
	(5) If the purpose of this application is to obtain an initial air operation permit or operation permit revision or renewal for one or more newly constructed or modified emissions units (check here, if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions unit has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.
k :	(ska) 5090s
*ppo	Attach any exception to certification statement. \$7.47 C OF Prom No. 62-210.900(1) - Form ective: 3/16/08GN A-6
DÆ Eff	Ferm No. 82-210.900(1) - Form ective, 3/16/036 A-6

II. FACILITY INFORMATION A. GENERAL FACILITY INFORMATION

Facility Location and Type

1.		dinates (km) 353.212 ch (km) 3193.987	2. Facility Latitude/Longitude Latitude (DD/MM/SS) 28/51/58 Longitude (DD/MM/SS) 82/30/18			
3.	Governmental	4. Facility Status	5. Facility Major	6. Facility SIC(s):		
	Facility Code:	Code:	Group SIC Code:			
	0	A	49	4922		
	7. Facility Comment : Compressor Station No. 26 is an existing natural gas pipeline compressor station with two compressor turbines.					

Facility Contact

1.	Facility Contact Name: : Bob Th	ompson				
2.	Facility Contact Mailing Address:					
	Organization/Firm: Florida Gas Transmission Company					
	Street Address: 245 N. Maylen Road					
	City: Lecanto	State:	FL	Zip Code:	34461	
3.	Facility Contact Telephone Number	ers:				
	Telephone: (407) 838 - 7605	ext. Fax:	(407)	838 - 7601		
4.	Facility Contact E-mail Address:	Bob.Thompsor	@SUG.co	n		

Facility Primary Responsible Official

Complete if an "application responsible official" is identified in Section I that is not the facility "primary responsible official."

	• • •			
1.	Facility Primary Responsible Office	cial Name:		
	NA			
	Facility Primary Responsible Office	sial Mailing A	ldress	
۷.	Organization/Firm:	cial ivialiling A	iui css	
	organization i i i i i i			
	Street Address:			
	City:	State:		Zip Code:
3.	Facility Primary Responsible Office	cial Telephone	Numbers	
	Telephone: () -	ext. Fax:	() -	
4.	Facility Primary Responsible Office	cial E-mail Add	dress:	

DEP Form No. 62-210.900(1) - Form

Effective: 3/16/08

FACILITY INFORMATION

Facility Regulatory Classifications

Check all that would apply *following* completion of all projects and implementation of all other changes proposed in this application for air permit. Refer to instructions to distinguish between a "major source" and a "synthetic minor source."

Small Business Stationary Source Unknown					
2. Synthetic Non-Title V Source					
3. Title V Source					
Major Source of Air Pollutants, Other than Hazardous Air Pollutants (HAPs)					
Synthetic Minor Source of Air Pollutants, Other than HAPs					
6. Major Source of Hazardous Air Pollutants (HAPs)					
7. Synthetic Minor Source of HAPs					
8. One or More Emissions Units Subject to NSPS (40 CFR Part 60)					
9. One or More Emissions Units Subject to Emission Guidelines (40 CFR Part 60)					
10. One or More Emissions Units Subject to NESHAP (40 CFR Part 61 or Part 63)					
11. Title V Source Solely by EPA Designation (40 CFR 70.3(a)(5))					
12. Facility Regulatory Classifications Comment:					
Facility will be a major source of Air Pollutants after these modifications.					
New gas-fired compressor turbine (No. 2603) is subject to (NSPS) 40 CFR Part 60, Subpart KKKK					
New gas-fired reciprocating internal combustion emergency generator engines are subject to (NSPS) 40 CFR 60 Subpart JJJJ.					
·					

DEP Form No. 62-210.900(1) – Form Effective: 3/16/08

FACILITY INFORMATION

List of Pollutants Emitted by Facility

1. Pollutant Emitted	2. Pollutant Classification	3. Emissions Cap [Y or N]?
NOX	В	N
СО	В	N
VOC	В	N
SO2	В	N
PM	В	N
НАР	В	N

FACILITY INFORMATION

B. EMISSIONS CAPS

Facility-Wide or Multi-Unit Emissions Caps

2. Facility- Wide Cap [Y or N]? (all units)	3. Emissions Unit ID's Under Cap (if not all units)	4. Hourly Cap (lb/hr)	5. Annual Cap (ton/yr)	6. Basis for Emissions Cap
-				
de er Multi Unit 1	Emissions Con Con	mont:		
de or water-ome i	emissions cap con	micit.		
	2. Facility-Wide Cap [Y or N]? (all units)	Wide Cap [Y or N]? (all units) Under Cap (if not all units)	2. Facility- Wide Cap [Y or N]? 3. Emissions Unit ID's Cap (lb/hr)	2. Facility-Wide Cap [Y or N]? (all units) 3. Emissions Unit ID's Under Cap (lb/hr) (if not all units) 4. Hourly Cap (lb/hr) Cap (ton/yr)

DEP Form No. 62-210.900(1) – Form Effective: 3/16/08

FACILITY INFORMATION

C. FACILITY ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

1.	Facility Plot Plan: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) Attached, Document ID: Attach. D Previously Submitted, Date:
2.	Process Flow Diagram(s): (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) Attached, Document ID: <u>Attach. B</u> Previously Submitted, Date:
3.	Precautions to Prevent Emissions of Unconfined Particulate Matter: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) Attached, Document ID <u>Attach. C</u> Previously Submitted, Date:
Ac	Iditional Requirements for Air Construction Permit Applications
1.	Area Map Showing Facility Location: Attached, Document ID: Narr. Fig. 1-1 Not Applicable (existing permitted facility)
2.	Description of Proposed Construction, Modification, or Plantwide Applicability Limit (PAL): Attached, Document ID: Narr. Sect 2.0
3.	Rule Applicability Analysis: Attached, Document ID: <u>Narr.Sect 3.0</u>
4.	List of Exempt Emissions Units: Attached, Document ID: <u>Attach. H</u> Not Applicable (no exempt units at facility)
5.	Fugitive Emissions Identification: Attached, Document ID: Narr. Sect 2.2.5 Not Applicable
6.	Air Quality Analysis (Rule 62-212.400(7), F.A.C.): Attached, Document ID: Not Applicable
7.	Source Impact Analysis (Rule 62-212.400(5), F.A.C.): Attached, Document ID: Not Applicable
8.	Air Quality Impact since 1977 (Rule 62-212.400(4)(e), F.A.C.): Attached, Document ID: Not Applicable
9.	Additional Impact Analyses (Rules 62-212.400(8) and 62-212.500(4)(e), F.A.C.): Attached, Document ID: Not Applicable
10.	Alternative Analysis Requirement (Rule 62-212.500(4)(g), F.A.C.): Attached, Document ID: Not Applicable

DEP Form No. 62-210.900(1) - Form

Effective: 3/16/08 A-11

FACILITY INFORMATION

C. FACILITY ADDITIONAL INFORMATION (CONTINUED)

Additional Requirements for FESOP Applications

1.	List of Exempt Emissions Units:
	Attached, Document ID: NA Not Applicable (no exempt units at facility)
Ac	Iditional Requirements for Title V Air Operation Permit Applications
1.	List of Insignificant Activities: (Required for initial/renewal applications only) Attached, Document ID: NA Not Applicable (revision application)
2.	Identification of Applicable Requirements: (Required for initial/renewal applications, and for revision applications if this information would be changed as a result of the revision being sought) Attached, Document ID: NA
	Not Applicable (revision application with no change in applicable requirements)
3.	Compliance Report and Plan: (Required for all initial/revision/renewal applications) Attached, Document ID: NA
	Note: A compliance plan must be submitted for each emissions unit that is not in compliance with all applicable requirements at the time of application and/or at any time during application processing. The department must be notified of any changes in compliance status during application processing.
4.	List of Equipment/Activities Regulated under Title VI: (If applicable, required for initial/renewal applications only) Attached, Document ID: NA
	Equipment/Activities Onsite but Not Required to be Individually Listed
	Not Applicable
5.	Verification of Risk Management Plan Submission to EPA: (If applicable, required for initial/renewal applications only) Attached, Document ID: NA Not Applicable
6.	Requested Changes to Current Title V Air Operation Permit: Attached, Document ID: NA Not Applicable

FACILITY INFORMATION

C. FACILITY ADDITIONAL INFORMATION (CONTINUED)

Additional Requirements for Facilities Subject to Acid Rain, CAIR, or Hg Budget Program

Acid Rain Program Forms: NA
Acid Rain Part Application (DEP Form No. 62-210.900(1)(a)): Attached, Document ID: Not Applicable (not an Acid Rain source) Previously Submitted, Date:
Phase II NO _X Averaging Plan (DEP Form No. 62-210.900(1)(a)1.): Attached, Document ID: Previously Submitted, Date: Not Applicable
New Unit Exemption (DEP Form No. 62-210.900(1)(a)2.): Attached, Document ID: Previously Submitted, Date: Not Applicable
2. CAIR Part (DEP Form No. 62-210.900(1)(b)): NA Attached, Document ID: Previously Submitted, Date: Not Applicable (not a CAIR source)
3. Hg Budget Part (DEP Form No. 62-210.900(1)(c)): NA Attached, Document ID: Previously Submitted, Date: Not Applicable (not a Hg Budget unit)
Additional Requirements Comment
Attachment B provides a Process Flow Diagram Attachment C presents Precautions to Prevent Emissions of Unconfined Particulate Matter Attachment D contains a plot plan. Attachment E has vendor supplied information. Attachment F has supporting calculations. Attachment G contains a fuel analysis Attachment H contains a list of Exempt Emission Units

Section [1]

of [3]

A. GENERAL EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Emissions Unit Classification

or renewal	1. Regulated or Unregulated Emissions Unit? (Check one, if applying for an initial, revised or renewal Title V air operation permit. Skip this item if applying for an air construction permit or FESOP only.) NA					
			Emissions Unit Informa	ation Section is a regulated		
I —	ons unit. nissions		Emissions Unit Informa	ation Section is an		
1 —		nissions unit.	emissions out morna	ation section is an		
Emissions Un	it Descr	iption and Status				
		· · · · · · · · · · · · · · · · · · ·	Section: (Check one)			
This E single p	missions process o	Unit Information Sec or production unit, or a	tion addresses, as a sing ectivity, which produces definable emission poin	s one or more air		
group	of proces	s or production units a	tion addresses, as a sing and activities which has y also produce fugitive	at least one definable		
				gle emissions unit, one or ce fugitive emissions only.		
2. Descrip	otion of	Emissions Unit Addres	ssed in this Section:			
20,500 bhp	(ISO) r	atural gas fired turbin	e compressor unit, FGT	Engine No. 2603		
3. Emissions	Unit Ide	ntification Number: 0	03			
4. Emissions	· .	5. Commence	6. Initial Startup	7. Emissions Unit		
Status Cod	ie:	Construction Date:	Date:	Major Group SIC Code:		
C		NA	NA	49		
8. Federal Pro	ogram A	pplicability: (Check a	ll that apply)			
Acid R	Rain Unit	.				
☐ CAIR	CAIR Unit					
☐ Hg Bu	Hg Budget Unit					
_	9. Package Unit:					
Manufacturer: Solar Model Number: Titan 130 - 20502S						
10. Generator Nameplate Rating: MW						
11. Emissions Unit Comment:						
Fuel will be exclusively natural gas from the FGT's gas pipeline. The proposed engine will incorporate dry, low NO _X combustion technology.						

DEP Form No. 62-210.900(1) - Form

Effective: 3/16/08

Section [1] **of** [3]

Emissions Unit Control Equipment/Method:	Control 1	of <u>1</u>
--	-----------	-------------

1. Control Equipment/Method Description:
The proposed engine will incorporate dry, low NO _X combustion technology.
2. Control Device or Method Code: 99
Emissions Unit Control Equipment/Method: Control of
1. Control Equipment/Method Description:
2. Control Device or Method Code:
Emissions Unit Control Equipment/Method: Control of
1. Control Equipment/Method Description:
2. Control Device or Method Code:
Emissions Unit Control Equipment/Method: Control of
1. Control Equipment/Method Description:
2. Control Device or Method Code:

Section [1] of [3]

B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

1. Maximum Process or Throughput	Rate: NA	
2. Maximum Production Rate: NA		
3. Maximum Heat Input Rate: 157.8	89 million Btu/hr HHV	
4. Maximum Incineration Rate: pour	inds/hr NA	
ton	s/day	
5. Requested Maximum Operating S	Schedule:	
	24 hours/day	7 days/week
	52 weeks/year	8760 hours/year
6. Operating Capacity/Schedule Cor	nment:	
Heat input is 157.89 MM Btu/hr High provided bhp of 19,465 bhp, a specifi (LHV) of 939.2 Btu/scf and a higher	c heat rate of 7,326 Btu/hp-hr,	, a lower heating value

DEP Form No. 62-210.900(1) – Form

Section [1] of [3]

C. EMISSION POINT (STACK/VENT) INFORMATION

(Optional for unregulated emissions units.)

Emission Point Description and Type

1. Identification of Point on Flow Diagram: 2603	Plot Plan or	2. Emission Point	Гуре Code:		
3. Descriptions of Emission	. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking:				
NA					
4. ID Numbers or Description	ns of Emission Ur	nits with this Emission	n Point in Common:		
NA					
5. Discharge Type Code: V	6. Stack Height 55 Feet	•	7. Exit Diameter: 8.7 feet (De)		
8. Exit Temperature: 944 °F	9. Actual Volui 232,782 acfir	metric Flow Rate:	10. Water Vapor: NA %		
11. Maximum Dry Standard F NA dscfm	low Rate:	12. Nonstack Emission Point Height: NA feet			
13. Emission Point UTM Coo Zone: 17 East (km):	13. Emission Point UTM Coordinates Zone: 17 East (km): 353.212		14. Emission Point Latitude/Longitude Latitude (DD/MM/SS)		
North (km)	North (km): 3193.987		Longitude (DD/MM/SS)		
15. Emission Point Comment	:				
Stack has rectangular cross section with dimensions of 7.5 x 8 feet.					

Section [1]

of [3]

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 1

1. Segment Description (Process/Fuel Type):

Natural gas fired turbine engine driving a natural gas compressor, operating full time.				
Source Classification Cod	e (SCC):	3. SCC Units:		
2-02-002-01	e (See).			n cubic feet burned
4. Maximum Hourly Rate: 0.1518	5. Maximum	Annual Rate: 9.92	6.	Estimated Annual Activity Factor: NA
7. Maximum % Sulfur: NA	8. Maximum	% Ash: IA	9.	Million Btu per SCC Unit: 1040
10. Segment Comment:				
None				
Segment Description and Ra	ate: Segment _	of_		
1. Segment Description (Pro	cess/Fuel Type):			
2. Source Classification Cod	a (SCC):	3. SCC Units:		
2. Source Classification Cou	e (SCC).	5. See Omes.	•	
4. Maximum Hourly Rate:	5. Maximum Annual Rate: 6. Estimated Annual Act Factor:		Estimated Annual Activity Factor:	
7. Maximum % Sulfur:	8. Maximum % Ash:		9.	Million Btu per SCC Unit:
10. Segment Comment:				

Section [1]

of [3]

E. EMISSIONS UNIT POLLUTANTS

List of Pollutants Emitted by Emissions Unit

1. Pollutant Emitted	Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
VOC			NS
SO ₂			EL
PM			NS
NO _X	99		EL
СО			NS
PM ₁₀			NS
HAPs			NS
			,
		L.	

EMISSIONS UNIT INFORMATION Section [1] of [3]

POLLUTANT DETAIL INFORMATION
Page | 1 | of | 6 |

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Pollutant Emitted: NOX	2. Total Percent Efficiency of Control:
3. Potential Emissions: 8.52 lb/hour 37.3	4. Synthetically Limited? Yes No
to tons/year	(as applicable): NA
6. Emission Factor: 8.52 lb/hr Reference: Vendor data	7. Emissions Method Code: 5
	<u> </u>
8.a. Baseline Actual Emissions (if required): NA tons/year	8.b. Baseline 24-month Period:
	From: To:
9.a. Projected Actual Emissions (if required): NA tons/year	9.b. Projected Monitoring Period:
	5 years 10 years
10. Calculation of Emissions:	
(8.52 lb/hr)(1 ton/2000 lb)(8760hr/1 yr) = 3	7.31 tons/year
	j
11. Potential, Fugitive, and Actual Emissions C	omment:
Wandada daabaadaa ISO aadki aa wikh inl	
Vendor's data based on ISO conditions with inl	et and exhaust losses of 4° of H2O.

EMISSIONS UNIT INFORMATION Section | 1 | of | 3 |

POLLUTANT DETAIL INFORMATION Page | 1 | of | 6 |

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions 1 of 1

1.	Basis for Allowable Emissions Code: RULE	2.	Future Effective Date of Allowable Emissions: NA
3.	Allowable Emissions and Units: 15 ppmvd @ 15% O2	4.	Equivalent Allowable Emissions: 8.52 lb/hour 37.31 tons/year
5.	Method of Compliance: Initial performance test		
6.	Allowable Emissions Comment (Description	of (Operating Method):
	40 CFR 60.4320(a) limits NOX emissions to	25	ppmv.
Al	lowable Emissions Allowable Emissions	of_	_
1.	Basis for Allowable Emissions Code:	2.	Future Effective Date of Allowable Emissions:
3.	Allowable Emissions and Units:	4.	Equivalent Allowable Emissions: lb/hour tons/year
5.	Method of Compliance:	1	
6.	Allowable Emissions Comment (Description	of	Operating Method):
Al	lowable Emissions Allowable Emissions	of_	_
1.	Basis for Allowable Emissions Code:	2.	Future Effective Date of Allowable Emissions:
3.	Allowable Emissions and Units:	4.	Equivalent Allowable Emissions: lb/hour tons/year
5.	Method of Compliance:		
6.	Allowable Emissions Comment (Description	of (Operating Method):

Section [1] **of** [3]

POLLUTANT DETAIL INFORMATION

Page [2] of [6]

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Pollutant Emitted: CO	2. Total Percent Efficient	ency of Control:		
3. Potential Emissions: 8.64 lb/hour 37.84	\ 	netically Limited? (es No		
5. Range of Estimated Fugitive Emissions to tons/year	(as applicable): NA			
6. Emission Factor: 8.64 lb/hr		7. Emissions Method Code:		
Reference: Vendor data		5		
8.a. Baseline Actual Emissions (if required):	8.b. Baseline 24-month	Period:		
NA tons/year	-	Го:		
9.a. Projected Actual Emissions (if required):	9.b. Projected Monitori	ng Period:		
NA tons/year	5 years	10 years		
10. Calculation of Emissions:				
10. Calculation of Emissions: (8.64 lb/hr)(1 ton/2000 lb)(8760hr/1 yr) = 37.84 tons/year 11. Potential, Fugitive, and Actual Emissions Comment:				
11. Potential, rugitive, and Actual Emissions C	omment:			
Vendor's data based on ISO conditions with inl	et and exhaust losses of 4	y" of H2O.		

POLLUTANT DETAIL INFORMATION Page | 2 | of | 6 |

Section [1] of [3]

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions NA of

Basis for Allowable Emissions Code:	Future Effective Date of Allowable Emissions: NA
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Descriptio	
Allowable Emissions Allowable Emissions 1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	,
6. Allowable Emissions Comment (Descriptio	n of Operating Method):
Allowable Emissions	_ of
Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Descriptio	n of Operating Method):

EMISSIONS UNIT INFORMATION Section [1] of [3]

POLLUTANT DETAIL INFORMATION
Page | 3 | of | 6 |

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Pollutant Emitted: VOC	2. Total Percent Efficiency of Control:			
3. Potential Emissions: 0.50 lb/hour 2.17	4. Synthetically Limited? Yes No			
to tons/year	(as applicable): NA			
6. Emission Factor: 0.50 lb/hr Reference: Vendor data	7. Emissions Method Code: 5			
8.a. Baseline Actual Emissions (if required): NA tons/year	8.b. Baseline 24-month Period: From: To:			
9.a. Projected Actual Emissions (if required): NA tons/year	9.b. Projected Monitoring Period: 5 years 10 years			
10. Calculation of Emissions: (0.50 lb/hr)(1 ton/2000 lb)(8760hr/1 yr) = 2.17 tons/year				
11. Potential, Fugitive, and Actual Emissions Comment: Vendor's data based on ISO conditions with inlet and exhaust losses of 4" of H2O.				

EMISSIONS UNIT INFORMATION Section | 1 | of | 3 |

POLLUTANT DETAIL INFORMATION Page | 3 | of | 6 |

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions NA of

<u> </u>	IOWADIE EIIIISSIOIIS Allowable EiiiisSioiis INF	<u>1</u> 01	
1.	Basis for Allowable Emissions Code:	2.	Future Effective Date of Allowable Emissions:
3.	Allowable Emissions and Units:	4.	Equivalent Allowable Emissions: lb/hour tons/year
5.	Method of Compliance:		
	Allowable Emissions Comment (Description		Operating Method):
$\underline{\mathbf{Al}}$	lowable Emissions Allowable Emissions	of_	
1.	Basis for Allowable Emissions Code:	2.	Future Effective Date of Allowable Emissions:
3.	Allowable Emissions and Units:	4.	Equivalent Allowable Emissions: lb/hour tons/year
5.	Method of Compliance:	1	
	Allowable Emissions Comment (Description		Operating Method):
Al	lowable Emissions Allowable Emissions	of_	_
1.	Basis for Allowable Emissions Code:	2.	Future Effective Date of Allowable Emissions:
3.	Allowable Emissions and Units:	4.	Equivalent Allowable Emissions: lb/hour tons/year
	Method of Compliance:		
6.	Allowable Emissions Comment (Description	of (Operating Method):

EMISSIONS UNIT INFORMATION Section [1] of [3]

POLLUTANT DETAIL INFORMATION
Page [4] of [6]

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Totelitian Estimated Lagitive, and Dasenile of	e Trojecteu Actuul Elinis	310113
Pollutant Emitted: SO2	2. Total Percent Efficie	ency of Control:
3. Potential Emissions:	4. Synth	netically Limited?
	l ————	es No
4.54 lb/flour 19.00	o tons/year Y	es 🖂 No
5. Range of Estimated Fugitive Emissions	(as applicable): NA	
to tons/year	,	
-		
6. Emission Factor: 10 grain/100 scf		7. Emissions
		Method Code:
Reference: FERC limit		2
8.a. Baseline Actual Emissions (if required):	8.b. Baseline 24-month	Period:
NA tons/year		Co:
·	_	
9.a. Projected Actual Emissions (if required):	9.b. Projected Monitori	ng Period:
NA tons/year	5 years	10 years
10 ~ 1 1 1 0 7 1 1		
10. Calculation of Emissions:		
(10 gr S/100 scf)(151,800 scf/hr)(1 lb/7000 gr) = 2.17 lb S/hr (2.17 lb S/hr)(2 lb SO2/lb S) = 4.34 lb SO2/hr (4.34 lb SO2/hr)(8760 hr/yr)(1 ton/2000 lb) = 19.00 ton/yr		
11. Potential, Fugitive, and Actual Emissions Co	omment:	
Vendor's data based on ISO conditions with inle	et and exhaust losses of 4	" of H2O.

EMISSIONS UNIT INFORMATION Section [1] of [3]

POLLUTANT DETAIL INFORMATION Page [4] of [6]

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -**ALLOWABLE EMISSIONS**

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions 1 of 1

1.	Basis for Allowable Emissions Code: RULE	2.	Future Effective Date of Allowable Emissions: NA		
3.	Allowable Emissions and Units:	4.	Equivalent Allowable Emissions: 4.17 lb/hour 18.27 tons/year		
5.	Method of Compliance: Initial performance test				
6.	6. Allowable Emissions Comment (Description of Operating Method):				
	40 CFR 60.4330(a)(2) limitsSO2 emissions t	o 9.0	06lb/hr.		
Al	lowable Emissions Allowable Emissions	of_	_		
1.	Basis for Allowable Emissions Code:	2.	Future Effective Date of Allowable Emissions:		
3.	Allowable Emissions and Units:	4.	Equivalent Allowable Emissions: lb/hour tons/year		
5.	Method of Compliance:	•			
6.	Allowable Emissions Comment (Description	of (Operating Method):		
Al	lowable Emissions Allowable Emissions	of_	_		
1.	Basis for Allowable Emissions Code:	2.	Future Effective Date of Allowable Emissions:		
3.	Allowable Emissions and Units:	4.	Equivalent Allowable Emissions: lb/hour tons/year		
5.	Method of Compliance:				
6.	Allowable Emissions Comment (Description	of	Operating Method):		

EMISSIONS UNIT INFORMATION Section | 1 | of | 3 |

POLLUTANT DETAIL INFORMATION
Page | 5 | of | 6 |

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Pollutant Emitted: PM	2. Total Percent Efficie	ency of Control:	
3. Potential Emissions: 1.04 lb/hour 4.56		netically Limited? 'es No	
to tons/year	(as applicable): NA		
6. Emission Factor: 0.0066 lb/MM Btu Reference: Table 2-1-2e AP 42-4/00		7. Emissions Method Code:	
Reference: Table 3.1-2a, AP-42 4/00 8.a. Baseline Actual Emissions (if required): NA tons/year	8.b. Baseline 24-month	Period:	
9.a. Projected Actual Emissions (if required): NA tons/year	9.b. Projected Monitori	ng Period:	
NA tons/year			
11. Potential, Fugitive, and Actual Emissions Co Based on vendor's heat input data at ISO condit H2O and fuel higher heat value of 1040 Btu/scf	ions with inlet and exhau	est losses of 4" of	

DEP Form No. 62-210.900(1) - Form

Effective: 3/16/08

EMISSIONS UNIT INFORMATION Section [1] of [3]

POLLUTANT DETAIL INFORMATION Page | 5 | of | 6 |

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions NA of

Basis for Allowable Emissions	Code: 2.	Future Effective Date of Allowable Emissions: NA
3. Allowable Emissions and Unit	s: 4.	Equivalent Allowable Emissions: lb/hour
5. Method of Compliance:		
6. Allowable Emissions Commen		Operating Method):
Allowable Emissions Allowable		_
1. Basis for Allowable Emissions	Code: 2.	Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units	s: 4.	Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:		
6. Allowable Emissions Commen		Operating Method):
Allowable Emissions Allowable	Emissions $_$ of $_$	_
Basis for Allowable Emissions	Code: 2.	Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Unit	s: 4.	Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:		
6. Allowable Emissions Commen	t (Description of 0	Operating Method):

EMISSIONS UNIT INFORMATION Section [1] of [3]

POLLUTANT DETAIL INFORMATION
Page [6] of [6]

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Pollutant Emitted: HAPS	2. Total Percent Efficiency of Control:		
3. Potential Emissions: 0.16 lb/hour 0.71	tons/year 4. Synthetically Limited? Yes No		
5. Range of Estimated Fugitive Emissions to tons/year	(as applicable): NA		
6. Emission Factor: 0.001027 lb/MM Btu Reference: AR 42 Table 3.1.2e	7. Emissions Method Code:		
Reference: AP-42, Table 3.1-2a			
8.a. Baseline Actual Emissions (if required): NA tons/year	8.b. Baseline 24-month Period:		
•	From: To:		
9.a. Projected Actual Emissions (if required): NA tons/year	9.b. Projected Monitoring Period:		
•	5 years 10 years		
10. Calculation of Emissions: (0.001027 lb/MM Btu)(157.89 MM Btu/hr) = 0.162 lb/hr (0.162 lb/hr)(8760 hr/yr)(1 ton/2000 lb) = 0.71 ton/y			
11. Potential, Fugitive, and Actual Emissions Co	omment:		
Based on vendor's heat input data at ISO condit H2O and fuel higher heat value of 1040 Btu/scf			

EMISSIONS UNIT INFORMATION Section | 1 | of | 3 |

POLLUTANT DETAIL INFORMATION Page | 6 | of | 6 |

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable E	missions Allowable Emissions NA	<u>1</u> o	f
1. Basis for	Allowable Emissions Code:	2.	Future Effective Date of Allowable Emissions: NA
3. Allowabl	e Emissions and Units:	4.	Equivalent Allowable Emissions: lb/hour tons/year
5. Method o	of Compliance:		
	e Emissions Comment (Description		Operating Method):
Allowable E	missions Allowable Emissions	of_	
1. Basis for	Allowable Emissions Code:	2.	Future Effective Date of Allowable Emissions:
3. Allowabl	e Emissions and Units:	4.	Equivalent Allowable Emissions: lb/hour tons/year
5. Method o	of Compliance:		
6. Allowabl	e Emissions Comment (Description	of	Operating Method):
Allowable E	missions Allowable Emissions	of_	
1. Basis for	Allowable Emissions Code:	2.	Future Effective Date of Allowable Emissions:
3. Allowab	e Emissions and Units:	4.	Equivalent Allowable Emissions: lb/hour tons/year
5. Method o	of Compliance:		
6. Allowabl	le Emissions Comment (Description	of	Operating Method):

Section [1] **of** [3]

G. VISIBLE EMISSIONS INFORMATION

Complete Subsection G if this emissions unit is or would be subject to a unit-specific visible emissions limitation.

<u>Vi</u>	sible Emissions Limitation: Visible Emiss	sions Limitation <u>1</u> of <u>1</u>
1.	Visible Emissions Subtype:	2. Basis for Allowable Opacity:
	VE10	Rule Other
3	Allowable Opacity:	
] 3.	• •	exceptional Conditions:
	Maximum Period of Excess Opacity Allov	1
		Time node
	3. Method of Compliance:	
	Annual testing with Method 9	
	4. Visible Emissions Comment:	
	4. Visible Limssions Comment.	
	Subject to 62-296-320(4)(b) General Visib	le Emissions Standards.
<u>Vi</u>	sible Emissions Limitation: Visible Emiss	sions Limitation of
1.	Visible Emissions Subtype:	2. Basis for Allowable Opacity:
		Rule Other
3.	Allowable Opacity:	
-	• •	Exceptional Conditions:
	Maximum Period of Excess Opacity Allow	•
4.	Method of Compliance:	
¬.	Method of Comphanee.	
5.	Visible Emissions Comment:	

Section [1] of [3]

H. CONTINUOUS MONITOR INFORMATION

Complete Subsection H if this emissions unit is or would be subject to continuous monitoring.

Continuous Monitoring System: Continuous Monitor NA of _

1.	Parameter Code:	2.	Pollutant(s):	•
3.	CMS Requirement:		Rule	Other
4.	Monitor Information Manufacturer: Model Number:		Serial Nu	ımber:
5.	Installation Date:	6.	Performance	e Specification Test Date:
7.	Continuous Monitor Comment:			
Co	ntinuous Monitoring System: Continuous	Mor	nitor of	_
1.	Parameter Code:		2. Pollutant	t(s):
3.	CMS Requirement:		Rule	Other
4.	Monitor Information Manufacturer:			
	Model Number:		Serial Nu	
5.	Installation Date:		6. Performa	ance Specification Test Date:
7.	Continuous Monitor Comment:	1		

Section [1] **of** [3]

I. EMISSIONS UNIT ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

1.	Process Flow Diagram: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
	Attached, Document ID: <u>Attach. B</u> Previously Submitted, Date
2.	Fuel Analysis or Specification: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) Attached, Document ID: <u>Attach. G</u> Previously Submitted, Date
3.	Detailed Description of Control Equipment: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) Attached, Document ID: NA Previously Submitted, Date
4.	Procedures for Startup and Shutdown: (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
	Attached, Document ID: Previously Submitted, Date
	Not Applicable (construction application)
5.	Operation and Maintenance Plan: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) Attached, Document ID: Previously Submitted, Date Not Applicable
6.	Compliance Demonstration Reports/Records:
	Attached, Document ID:
	Test Date(s)/Pollutant(s) Tested:
	Previously Submitted, Date:
	Test Date(s)/Pollutant(s) Tested:
	To be Submitted, Date (if known):
	Test Date(s)/Pollutant(s) Tested:
	Not Applicable Not Applicable
	Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.
7.	Other Information Required by Rule or Statute: Attached, Document 1D: Not Applicable

DEP Form No. 62-210.900(1) - Form

Effective: 3/16/08 A-34

Section [1] of [3]

I. EMISSIONS UNIT ADDITIONAL INFORMATION (CONTINUED)

Additional Requirements for Air Construction Permit Applications

1. Control Technology Review and Analysis (Rules 62-212.400(10) and 62-212.500(7),				
F.A.C.; 40 CFR 63.43(d) and (e)):				
Attached, Document ID: <u>Narr. Sec. 3.0</u> Not Applicable				
2. Good Engineering Practice Stack Height Analysis (Rules 62-212.400(4)(d) and 62-				
212.500(4)(f), F.A.C.):				
Attached, Document ID: Not Applicable				
3. Description of Stack Sampling Facilities: (Required for proposed new stack sampling				
facilities only) Attached, Document ID: <u>See Note Below</u> Not Applicable				
Attached, Document 1D. <u>See Note Below</u> Not Applicable				
Additional Requirements for Title V Air Operation Permit Applications				
1. Identification of Applicable Requirements:				
Attached, Document 1D: <u>NA</u>				
2. Compliance Assurance Monitoring:				
Attached, Document ID: Not Applicable				
3. Alternative Methods of Operation:				
Attached, Document ID: Not Applicable				
4. Alternative Modes of Operation (Emissions Trading):				
Attached, Document ID: Not Applicable				
Additional Requirements Comment				
Supplemental information is provided in the narrative description accompanying these forms.				
The state of the s				
Specifications for the engine silencers/stacks have not been completed at this time. Final				
specifications will comply with USEPA and FDEP regulatory requirements.				

Section [2]

of [3]

A. GENERAL EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Emissions Unit Classification

(1. Regulated or Unregulated Emissions Unit? (Check one, if applying for an initial, revised or renewal Title V air operation permit. Skip this item if applying for an air construction permit or FESOP only.) NA					
[The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.					
		unit addressed in this E	Emissions Unit Informa	tion Section is an		
	unregulated er	nissions unit.				
<u>Emi</u>	ssions Unit Descr	iption and Status				
1.	Type of Emissions	Unit Addressed in this	Section: (Check one)			
	single process	s Unit Information Sect or production unit, or ac which has at least one d	ctivity, which produces	one or more air		
	group of proces	s Unit Information Sect ss or production units an (stack or vent) but may	nd activities which has	at least one definable		
	This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.					
1	1. Description of Emissions Unit Addressed in this Section:					
1	454 bhp natural gas fired, spark ignition, 4-stroke, rich-burn, internal combustion emergency generator engine, FGT Engine No. GEN03					
3. I	Emissions Unit Ide	entification Number: 00)4			
	Emissions Unit	5. Commence	6. Initial Startup	7. Emissions Unit		
5	Status Code:	Construction	Date:	Major Group		
	С	Date: NA	NA	SIC Code:		
8. F	Federal Program A	pplicability: (Check al	that apply)			
	Acid Rain Uni	t				
	CAIR Unit					
	 Hg Budget Un	it				
9. F	Package Unit:					
N	Manufacturer: Generac Model Number: SG300					
10. 0	Generator Namepl	ate Rating: 0.3 MW				
11. E	11. Emissions Unit Comment:					
Fuel will be exclusively natural gas from the FGT's gas pipeline.						

DEP Form No. 62-210.900(1) – Form

Effective: 3/16/08 A-36

EMISSIONS UNIT INFORMATION Section [2] of [3]

Emissions Unit Control Equipment/Method: Control NA of 1

1. Control Equipment/Method Description:
2. Control Device or Method Code:
Emissions Unit Control Equipment/Method: Control of
1. Control Equipment/Method Description:
2. Control Device or Method Code:
Emissions Unit Control Equipment/Method: Control of
1. Control Equipment/Method Description:
2. Control Device or Method Code:
Emissions Unit Control Equipment/Method: Control of
1. Control Equipment/Method Description:
2. Control Device or Method Code:

Section [2]

of [3]

B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

1. Maximum Process or Thro	oughput Rate: NA	
2. Maximum Production Rat	e: NA	
3. Maximum Heat Input Rate	e: 4.26 million Btu/hr	
4. Maximum Incineration Ra	ite: pounds/hr NA	
	tons/day	
5. Requested Maximum Ope	rating Schedule:	
	hours/day	days/week
	weeks/year	100 hours/year
6. Operating Capacity/Sched	ule Comment:	
	defined emergency generator usa CFR 60.4243(d)). This does not i	

Section [2] **of** [3]

C. EMISSION POINT (STACK/VENT) INFORMATION

(Optional for unregulated emissions units.)

Emission Point Description and Type

1.	Identification of Point on Flow Diagram: GEN04	Plot Plan or	2.	Emission Point	Type Code: I
3.	Descriptions of Emission	Points Comprising	this	s Emissions Unit	for VE Tracking:
	NA				
4.	ID Numbers or Descriptio	ns of Emission Ur	its v	with this Emission	n Point in Common:
	NA				
5.	Discharge Type Code: V	6. Stack Height 7.0 Feet	:		7. Exit Diameter: 0.33 feet
8.	Exit Temperature: 1490 °F	9. Actual Volum 4335 acfm	netr	ic Flow Rate:	10. Water Vapor: NA %
II.	Maximum Dry Standard F NA dscfm	low Rate:	12.	Nonstack Emissi NA feet	on Point Height:
13.	Emission Point UTM Coo		14.		Latitude/Longitude
	Zone: 17 East (km): North (km)	353.212 · 3193.987		Latitude (DD/M) Longitude (DD/I)	·
15.	Emission Point Comment:			Longitude (DD/)	VIIVII 33 j
					•

DEP Form No. 62-210.900(1) – Form

Effective: 3/16/08 A-39

Section [2] of

D. SEGMENT (PROCESS/FUEL) INFORMATION

Natural gas fired 4-stroke, rich-burn engine driving an emergency generator.

Segment Description and Rate: Segment 1 of 1

1. Segment Description (Process/Fuel Type):

Source Classification Code (SCC): 2-02-002-53 3. SCC Units: million cubic feet burned						
4. Maximum Hourly Rate: 0.0041	5. Maximum 0.	Annual Rate: 41	6. Estimated Annual Activity Factor: NA			
7. Maximum % Sulfur: NA	8. Maximum	% Ash: IA	9. Million Btu per SCC Unit: 1040			
10. Segment Comment: Annual usage based on 10	10. Segment Comment: Annual usage based on 100 hours per year operation.					
Segment Description and Rate: Segment _ of						
1. Segment Description (Process/Fuel Type):						
2. Source Classification Code (SCC): 3. SCC Units:						
4. Maximum Hourly Rate:	5. Maximum	Annual Rate:	6. Estimated Annual Activity Factor:			
7. Maximum % Sulfur:	8. Maximum	% Ash:	9. Million Btu per SCC Unit:			
10. Segment Comment:	1 -		1			

Section [2] **of** [3]

E. EMISSIONS UNIT POLLUTANTS

List of Pollutants Emitted by Emissions Unit

1. Pollutant Emitted	Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
VOC			EL
SO ₂			NS
PM			NS
NO _X			EL
СО			EL
PM ₁₀			NS
НАР			NS

EMISSIONS UNIT INFORMATION Section [2] of [3]

POLLUTANT DETAIL INFORMATION
Page [1] of [6]

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Pollutant Emitted: NOX	2. Total Percer 5.7	nt Efficie	ency of Control:		
			netically Limited?		
to tons/year	(as applicable):	NA			
6. Emission Factor: 2.00 g/hp-hr at 5.7% cont Reference: Vendor data	rol		7. Emissions Method Code: 5		
8.a. Baseline Actual Emissions (if required): NA tons/year	8.b. Baseline 24 From:		Period:		
9.a. Projected Actual Emissions (if required): NA tons/year	9.b. Projected N	_	ng Period:] 10 years		
10. Calculation of Emissions: (2.00 g/hp-hr)(454 bhp)(1 lb/454 g) = 2.00 lb/hr (2.00 lb/hr)(100 hr/yr)(1 ton/2000 lb) = 0.10 ton/yr					
11. Potential, Fugitive, and Actual Emissions Co	omment:	_			
Calculations based on emergency generator usa efficiency.	Calculations based on emergency generator usage of 100 hours per year and minimum control efficiency.				

DEP Form No. 62-210.900(1) - Form

Effective: 3/16/08 A-42

EMISSIONS UNIT INFORMATION Section | 2 | of | 3 |

POLLUTANT DETAIL INFORMATION
Page | 1 | of | 6 |

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions 1 of 1					
1.	Basis for Allowable Emissions Code: RULE	2.	Future Effective Date of Emissions: NA	of Allowable	
3.	Allowable Emissions and Units: 2.00 g/hp-hr.	4.	Equivalent Allowable 2.00 lb/hour	Emissions: 0.10 tons/year	
5.	5. Method of Compliance: Monitor hours of operation				
6.	6. Allowable Emissions Comment (Description of Operating Method):				
	60 4230 Table Himits NOX emissions to 2 g/hhn-hr				

Future Effective Date of Allowable Emissions: Equivalent Allowable Emissions: lb/hour tons/year perating Method):
lb/hour tons/year

Future Effective Date of Allowable Emissions:
Equivalent Allowable Emissions: lb/hour tons/year

EMISSIONS UNIT INFORMATION Section | 2 | of | 3 |

POLLUTANT DETAIL INFORMATION
Page [2] of [6]

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Pollutant Emitted: CO	2. Total Percent 96.6	Efficiency of Control:		
3. Potential Emissions: 4.0 lb/hour 0.40) tons/year 4.	Synthetically Limited? Yes No		
to tons/year	(as applicable): N			
6. Emission Factor: 4.0 g/hp-hr at 96.6% control Reference: Vendor data	rol	7. Emissions Method Code: 5		
8.a. Baseline Actual Emissions (if required): NA tons/year	8.b. Baseline 24-1 From:	То:		
9.a. Projected Actual Emissions (if required): NA tons/year	9.b. Projected Mo			
10. Calculation of Emissions: (4.00 g/hp-hr)(454 bhp)(1lb/454 g) = 4.00 lb/hr (4.00 lb/hr)(100 hr/yr)(1 ton/2000 lb) = 0.40 ton/yr				
11. Potential, Fugitive, and Actual Emissions Co	omment:			
Calculations based on emergency generator usage of 100 hours per year and minimum control efficiency.				

DEP Form No. 62-210.900(1) – Form

Effective: 3/16/08 A-44

EMISSIONS UNIT INFORMATION Section [2] of [3]

POLLUTANT DETAIL INFORMATION
Page [2] of [6]

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions 1 of 1					
1.	Basis for Allowable Emissions Code: RULE	2. Future Effective Date of Allowable Emissions: NA			
3.	Allowable Emissions and Units: 4.00 g/hp-hr.	4.	Equivalent Allowable E 4.00 lb/hour	missions: 0.20 tons/year	
5.	Method of Compliance: Monitor hours of operation				
6.	Allowable Emissions Comment (Description of Operating Method):				
	60.4230 Table I limits CO emissions to 4 g/hhp-hr.				
Allowable Emissions of					
1.	Basis for Allowable Emissions Code:	2.	Future Effective Date of Emissions:	f Allowable	
3.	Allowable Emissions and Units:	4.	Equivalent Allowable E lb/hour	missions: tons/year	
5.	Method of Compliance:				
6.	Allowable Emissions Comment (Description of Operating Method):				
Allowable Emissions of					
1.	Basis for Allowable Emissions Code:	2.	Future Effective Date of Emissions:	f Allowable	
3.	Allowable Emissions and Units:	4.	Equivalent Allowable E lb/hour	missions: tons/year	
5.	Method of Compliance:				
6. Allowable Emissions Comment (Description of Operating Method):					

EMISSIONS UNIT INFORMATION Section [2] of [3]

POLLUTANT DETAIL INFORMATION
Page | 3 | of | 6 |

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Pollutant Emitted: VOC	2. Total Percent Efficiency of Control: 0				
3. Potential Emissions: 0.29 lb/hour 0.01	tons/year 4. Synthetically Limited? Yes No				
5. Range of Estimated Fugitive Emissions (as applicable): NA to tons/year					
6. Emission Factor: 2.91 g/hp-hr THC Reference: Vendor data	7. Emissions Method Code: 5				
8.a. Baseline Actual Emissions (if required): NA tons/year	8.b. Baseline 24-month Period: From: To:				
9.a. Projected Actual Emissions (if required): NA tons/year	9.b. Projected Monitoring Period: 5 years 10 years				
10. Calculation of Emissions: Assume VOC 10% of THC = 0.29 g/hp-hr (0.29 g/hp-hr)(454 bhp)(1 lb/453.6 g) = 0.29 lb/hr (0.29 lb/hr)(100 hr/yr)(1 ton/2000 lb) = 0.01 ton/yr					
11. Potential, Fugitive, and Actual Emissions Comment: Calculations based on emergency generator usage of 100 hours per year.					

EMISSIONS UNIT INFORMATION Section | 2 | of | 3 |

POLLUTANT DETAIL INFORMATION Page | 3 | of | 6 |

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1.	Basis for Allowable Emissions Code: RULE	2.	Future Effective Date of Allowable Emissions: NA
3.	Allowable Emissions and Units: 0.29 g/hhp-hr.	4.	Equivalent Allowable Emissions: 0.29 lb/hour 0.01 tons/year
5.	Method of Compliance: Monitor hours of operation		
6.	Allowable Emissions Comment (Description	of (Operating Method):
	60.4230 Table 1 limits VOC emissions to 1 g.	/hhp	-hr.
<u>Al</u>	lowable Emissions Allowable Emissions	of_	
1.	Basis for Allowable Emissions Code:	2.	Future Effective Date of Allowable Emissions:
3.	Allowable Emissions and Units:	4.	Equivalent Allowable Emissions: lb/hour tons/year
5.	Method of Compliance:		
6. Allowable Emissions Comment (Description of Operating Method):			
All	lowable Emissions Allowable Emissions	of_	_
1.	Basis for Allowable Emissions Code:	2.	Future Effective Date of Allowable Emissions:
3.	Allowable Emissions and Units:	4.	Equivalent Allowable Emissions: lb/hour tons/year
5.	Method of Compliance:		
6.	Allowable Emissions Comment (Description	of	Operating Method):

EMISSIONS UNIT INFORMATION Section | 2 | of | 3 |

POLLUTANT DETAIL INFORMATION
Page | 4 | of | 6 |

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: SO2	2. Total Percent Efficiency of Control:
3. Potential Emissions: 0.117 lb/hour 0.006	4. Synthetically Limited? Stons/year Yes No
to tons/year	(as applicable): NA
6. Emission Factor: 10 grains / 100 scf Reference: FERC limit	7. Emissions Method Code: 2
8.a. Baseline Actual Emissions (if required): NA tons/year	8.b. Baseline 24-month Period: From: To:
9.a. Projected Actual Emissions (if required): NA tons/year	9.b. Projected Monitoring Period: 5 years 10 years
10. Calculation of Emissions: (10 gr S/100 scf)(4100 scf/hr)(1 lb/7000 gr) = 0.059 lt (0.059 lb S/hr)(2 lb SO2/lb S) = 0.117 lb SO2/hr (0.117 lb SO2/hr)(100 hr/yr)(1 ton/2000 lb) = 0.006 lt	
11. Potential, Fugitive, and Actual Emissions Co	omment:
Calculations based on emergency generator usage	ge of 100 hours per year.

POLLUTANT DETAIL INFORMATION
Page | 4 | of | 6 |

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions NA of

<u> </u>	Mable Emissions Allowable Emissions INF	<u>.</u> 01		
1.	Basis for Allowable Emissions Code:	2.	Future Effective Date of Allowable Emissions: NA	
3.	Allowable Emissions and Units:	4.	Equivalent Allowable Emissions: lb/hour tons/year	
5.	Method of Compliance:			
	6. Allowable Emissions Comment (Description of Operating Method):			
Al	lowable Emissions Allowable Emissions	of_		
1.	Basis for Allowable Emissions Code:	2.	Future Effective Date of Allowable Emissions:	
3.	Allowable Emissions and Units:	4.	Equivalent Allowable Emissions: lb/hour tons/year	
5.	5. Method of Compliance:			
6. Allowable Emissions Comment (Description of Operating Method):				
Al	lowable Emissions Allowable Emissions	of_		
1.	Basis for Allowable Emissions Code:	2.	Future Effective Date of Allowable Emissions:	
3.	Allowable Emissions and Units:	4.	Equivalent Allowable Emissions: lb/hour tons/year	
5.	Method of Compliance:			
6.	Allowable Emissions Comment (Description	of (Operating Method):	

POLLUTANT DETAIL INFORMATION
Page | 5 | of | 6 |

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1 D 11	2 T 1 D F.CC :	6 C 1
Pollutant Emitted: PM	2. Total Percent Efficien	ney of Control:
3. Potential Emissions:	4. Synthe	etically Limited?
	tons/year X	es No
5. Range of Estimated Fugitive Emissions	(as applicable): NA	
to tons/year		
6. Emission Factor: 0.01941 lb/MM Btu		7. Emissions
		Method Code:
Reference: Table 3.2-3, AP-42 7/00		3
8.a. Baseline Actual Emissions (if required):	8.b. Baseline 24-month	Period:
NA tons/year	From: To	0:
9.a. Projected Actual Emissions (if required):	9.b. Projected Monitorin	g Period:
NA tons/year	5 years] 10 years
10. Calculation of Emissions:		
(0.01941 lb/MM Btu)(4.26 MM Btu/hr) = 0 (0.083 lb/hr)(100 hr/yr)(1 ton/2000 lb) = 0.0	004 ton/y	
11. Potential, Fugitive, and Actual Emissions C	omment:	
Calculations based on emergency generator usa	ge of 100 hours per year.	

POLLUTANT DETAIL INFORMATION Page | 5 | of | 6 |

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions NA of

1.	Basis for Allowable Emissions Code:	2.	Future Effective Date of Allowable Emissions: NA		
3.	Allowable Emissions and Units:	4.	Equivalent Allowable Emissions: lb/hour		
5.	Method of Compliance:				
	6. Allowable Emissions Comment (Description of Operating Method):				
Al	lowable Emissions Allowable Emissions	of_	_		
1.	Basis for Allowable Emissions Code:	2.	Future Effective Date of Allowable Emissions:		
3.	Allowable Emissions and Units:	4.	Equivalent Allowable Emissions: lb/hour tons/year		
5.	Method of Compliance:				
6. Allowable Emissions Comment (Description of Operating Method):					
Al	lowable Emissions Allowable Emissions	of_			
1.	Basis for Allowable Emissions Code:	2.	Future Effective Date of Allowable Emissions:		
3.	Allowable Emissions and Units:	4.	Equivalent Allowable Emissions: lb/hour tons/year		
5.	Method of Compliance:				
6.	Allowable Emissions Comment (Description	of	Operating Method):		

DEP Form No. 62-210.900(1) - Form

EMISSIONS UNIT INFORMATION Section | 2 | of | 3 |

POLLUTANT DETAIL INFORMATION
Page | 6 | of | 6 |

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

I otential, Estimated Fugitive, and Dascuite &	c i rojecteu Actual Ellis	310113
Pollutant Emitted: HAPS	2. Total Percent Efficie	ncy of Control:
3. Potential Emissions:	4. Synth	etically Limited?
		es No
		<u> </u>
5. Range of Estimated Fugitive Emissions to tons/year	(as applicable): NA	
6. Emission Factor: 0.0234 lb/MM Btu		7. Emissions
		Method Code:
Reference: AP-42, Table 3.2-3		3
8.a. Baseline Actual Emissions (if required):	8.b. Baseline 24-month	Period:
NA tons/year	From:	o:
9.a. Projected Actual Emissions (if required):	9.b. Projected Monitoria	ng Period:
NA tons/year	5 years	10 years
10. Calculation of Emissions:		
(0.0234 lb/MM Btu)(4.26 MM Btu/hr) = 0.1 (0.10 lb/hr)(8760 hr/yr)(1 ton/2000 lb) = 0.0	005 ton/y	
11. Potential, Fugitive, and Actual Emissions Co	omment:	
Calculations based on emergency generator usage	ge of 100 hours per year.	

POLLUTANT DETAIL INFORMATION [6] of [6]

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions NA of

Basis for Allowable Emissions Cod	e: 2. Future Effective Date of Allowable Emissions: NA
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (De	
Allowable Emissions Allowable Emis 1. Basis for Allowable Emissions Cod	
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (De Allowable Emissions Allowable Emissions)	
Basis for Allowable Emissions Cod	
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (De	escription of Operating Method):

Section [2]

of [3]

G. VISIBLE EMISSIONS INFORMATION

Complete Subsection G if this emissions unit is or would be subject to a unit-specific visible emissions limitation.

Visible Emissions Limitation: Visible Emissions Limitation NA of

1.	Visible Emissions Subtype:	2. Basis for Allowable Rule	Opacity: Other
3.	Allowable Opacity:		
	· •	xceptional Conditions:	%
	Maximum Period of Excess Opacity Allow		min/hour
	2. Method of Compliance:		
	2. Wellow of Compliance.		
	3. Visible Emissions Comment:		N 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
17:	sible Emissions Limitation. Visible Emiss	iona Limitation of	
	sible Emissions Limitation: Visible Emiss		
l.	Visible Emissions Subtype:	2. Basis for Allowable	
		Rule	Other
3.	Allowable Opacity:		
	Normal Conditions: % Ex	xceptional Conditions:	0/0
	Maximum Period of Excess Opacity Allow	ed:	min/hour
4.	Method of Compliance:		
	•		
5.	Visible Emissions Comment:		
			•

DEP Form No. 62-210.900(1) – Form

Effective: 3/16/08

Section [2]

of [3]

H. CONTINUOUS MONITOR INFORMATION

Complete Subsection H if this emissions unit is or would be subject to continuous monitoring.

<u>Continuous Monitoring System:</u> Continuous Monitor <u>NA</u> of ___ 2. Pollutant(s): 1. Parameter Code: 3. CMS Requirement: Rule Other 4. Monitor Information... Manufacturer: Model Number: Serial Number: 6. Performance Specification Test Date: 5. Installation Date: 7. Continuous Monitor Comment: Continuous Monitoring System: Continuous Monitor ___ of ___ 1. Parameter Code: 2. Pollutant(s): 3. CMS Requirement: Rule Other 4. Monitor Information... Manufacturer: Model Number: Serial Number: 6. Performance Specification Test Date: 5. Installation Date: 7. Continuous Monitor Comment:

DEP Form No. 62-210.900(1) – Form

Section | 2| of | 3|

I. EMISSIONS UNIT ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

1.	Process Flow Diagram: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) Attached, Document ID: Attach. B Previously Submitted, Date
2.	Fuel Analysis or Specification: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) Attached, Document ID: Attached, Document ID: Attach. G Previously Submitted, Date
3.	Detailed Description of Control Equipment: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) Attached, Document ID: <u>See note below</u> Previously Submitted, Date
4.	Procedures for Startup and Shutdown: (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) Attached, Document ID: Previously Submitted, Date Not Applicable (construction application)
5.	Operation and Maintenance Plan: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) Attached, Document ID: Previously Submitted, Date Not Applicable
6.	Compliance Demonstration Reports/Records: Attached, Document ID: Test Date(s)/Pollutant(s) Tested:
	Previously Submitted, Date: Test Date(s)/Pollutant(s) Tested:
	To be Submitted, Date (if known): Test Date(s)/Pollutant(s) Tested:
	Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.
7.	Other Information Required by Rule or Statute: Attached, Document 1D: Not Applicable

A-56

DEP Form No. 62-210.900(1) - Form

Effective: 3/16/08

Section [2]

of [3]

I. EMISSIONS UNIT ADDITIONAL INFORMATION (CONTINUED)

Additional Requirements for Air Construction Permit Applications

1. Control Technology Review and Analysis (Rules 62-212.400(10) and 62-212.500(7),
F.A.C.; 40 CFR 63.43(d) and (e)):
Attached, Document 1D: <u>Narr. Sec. 3.0</u> Not Applicable
2. Good Engineering Practice Stack Height Analysis (Rules 62-212.400(4)(d) and 62-
212.500(4)(f), F.A.C.):
Attached, Document ID: Not Applicable
3. Description of Stack Sampling Facilities: (Required for proposed new stack sampling
facilities only)
Attached, Document ID: <u>See note below</u> Not Applicable
Additional Requirements for Title V Air Operation Permit Applications
1. Identification of Applicable Requirements:
Attached, Document ID: <u>NA</u>
2. Compliance Assurance Monitoring:
Attached, Document ID: Not Applicable
3. Alternative Methods of Operation:
Attached, Document ID: Not Applicable
4. Alternative Modes of Operation (Emissions Trading):
Attached, Document ID: Not Applicable
Additional Requirements Comment
Supplemental information is provided in the narrative description accompanying these forms.
The manufacturer has not completed design specifications and has not provided final emission rates at this time. Emissions will comply with applicable 40 CFR Subpart JJJJ requirements.
Specifications for the sampling facilities have not been completed at this time. Final specifications will comply with USEPA and FDEP regulatory requirements.

Section [3]

of |3|

A. GENERAL EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Emissions Unit Classification

. •	egulated Emissions Unit' air operation permit. Sonly.) NA		•		
The emissions emissions uni	The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit				
The emissions	s unit addressed in this E	Emissions Unit Informa	tion Section is an		
unregulated e	missions unit.				
Emissions Unit Desc	ription and Status				
1. Type of Emissions	s Unit Addressed in this	Section: (Check one)			
single process	ns Unit Information Sect or production unit, or ac which has at least one d	ctivity, which produces	one or more air		
group of proce	es Unit Information Sect less or production units and tack or vent) but may	nd activities which has	at least one definable		
			le emissions unit, one or e fugitive emissions only.		
1. Description of	Emissions Unit Address	sed in this Section:			
1 2	454 bhp natural gas fired, spark ignition, 4-stroke, rich-burn, internal combustion emergency generator engine, FGT Engine No. GEN04				
3. Emissions Unit Identification Number: 005					
4. Emissions Unit	5. Commence	6. Initial Startup	7. Emissions Unit		
Status Code:	Construction Date:	Date:	Major Group SIC Code:		
C	NA	NA	49		
8. Federal Program A	Applicability: (Check al	l that apply)			
Acid Rain Un					
CAIR Unit					
Hg Budget Ur	nit				
9. Package Unit:					
Manufacturer: Generac Model Number: SG300					
10. Generator Nameplate Rating: 0.3 MW					
11. Emissions Unit Comment:					
Fuel will be exclusively natural gas from the FGT's gas pipeline.					
·					

Section [3] **of** [3]

Emissions Unit Control Equipment/Method: Control NA of_

1. Control Equipment/Method Description:
2. Control Device or Method Code:
2. Control Bevice of Method Code.
Emissions Unit Control Equipment/Method: Control of
1. Control Equipment/Method Description:
2. Control Device or Method Code:
Emissions Unit Control Equipment/Method: Control of
1. Control Equipment/Method Description:
2. Control Device or Method Code:
Emissions Unit Control Equipment/Method: Control of
1. Control Equipment/Method Description:
2. Control Device or Method Code:

Section [3]

of [3]

B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

	hroughput Rate: NA	
2. Maximum Production F	Rate: NA	
3. Maximum Heat Input R	ate: 4.26 million Btu/hr	
4. Maximum Incineration	Rate: pounds/hr NA	
	tons/day	
5. Requested Maximum C	perating Schedule:	
	hours/day	days/week
	weeks/year	100 hours/year
6. Operating Capacity/Sch	edule Comment:	
maintenance and testing (40	A defined emergency generator usa	

DEP Form No. 62-210.900(1) – Form

Section [3]

of [3]

C. EMISSION POINT (STACK/VENT) INFORMATION

(Optional for unregulated emissions units.)

Emission Point Description and Type

Identification of Point on Flow Diagram: GEN04	Plot Plan or	2. Emission Point 7	Type Code:
3. Descriptions of Emission	Points Comprising	g this Emissions Unit	for VE Tracking:
NA			
4. ID Numbers or Description	na of Emission III	nita with this Emission	Paint in Common:
4. ID Numbers or Description	ns of Emission Of	mits with this Emission	i Pont in Common.
NA			
5. Discharge Type Code:	6. Stack Height	i:	7. Exit Diameter:
V	7.0 Feet	- 1 - D - 1 - 1	0.33 feet
8. Exit Temperature: 1490 °F	9. Actual Volume 4335 acfm	metric Flow Rate:	10. Water Vapor: NA %
11. Maximum Dry Standard F NA dscfm	Flow Rate:	12. Nonstack Emissi NA feet	on Point Height:
13. Emission Point UTM Coo Zone: 17 East (km):	ordinates 353.212	14. Emission Point I Latitude (DD/M	Latitude/Longitude
` ′	333.212	Longitude (DD/I	
15. Emission Point Comment	:		

DEP Form No. 62-210.900(1) - Form

Section [3]

of [3]

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 1

1. Segment Description (Process/Fuel Type):

	Natural gas fired 4-stroke, rich-burn engine driving an emergency generator.				
2.	Source Classification Code 2-02-002-53	e (SCC):	3. SCC Units:		n cubic feet burned
4.	Maximum Hourly Rate: 0.0041	5. Maximum A		6.	Estimated Annual Activity Factor: NA
7.	Maximum % Sulfur: NA	8. Maximum 9	% Ash: A	9.	Million Btu per SCC Unit: 1040
10.	Segment Comment:				
	Annual usage based on 100	0 hours per year	operation.		
Se	gment Description and Ra	ite: Segment	of	_	
1.	1. Segment Description (Process/Fuel Type):				
		(0.00)	a agazz :		
2.	Source Classification Code	e (SCC):	3. SCC Units:		
4.	Maximum Hourly Rate:	5. Maximum Annual Rate: 6. Estimated Annual Ac Factor:		Estimated Annual Activity Factor:	
7.	Maximum % Sulfur:	8. Maximum % Ash: 9.		9.	Million Btu per SCC Unit:
10.	Segment Comment:				_

Section [3] **of** [3]

E. EMISSIONS UNIT POLLUTANTS

List of Pollutants Emitted by Emissions Unit

1. Pollutant Emitted	Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
VOC			EL
SO ₂			NS
PM			NS
NO _X			EL
СО			EL
PM ₁₀			NS
HAPs			NS
_			

Section [3] **of** [3]

POLLUTANT DETAIL INFORMATION

Page [1] of [6]

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Pollutant Emitted: NOX	2. Total Percent Efficiency of Control: 5.7
3. Potential Emissions: 2.00 lb/hour 0.20	4. Synthetically Limited? Utons/year Yes No
to tons/year	(as applicable): NA
6. Emission Factor: 2.00 g/hp-hr at 5.7% cont Reference: Vendor data	7. Emissions Method Code: 5
8.a. Baseline Actual Emissions (if required): NA tons/year	8.b. Baseline 24-month Period: From: To:
9.a. Projected Actual Emissions (if required): NA tons/year	9.b. Projected Monitoring Period: 5 years 10 years
10. Calculation of Emissions: (2.00 g/hp-hr)(454 bhp)(1 lb/454 g) = 2.00 lb (2.00 lb/hr)(100 hr/yr)(1 ton/2000 lb) = 0.10	
11. Potential, Fugitive, and Actual Emissions C	omment:
Calculations based on emergency generator usa efficiency.	ge of 100 hours per year and minimum control

POLLUTANT DETAIL INFORMATION Page | 1 | of | 6 |

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1.	Basis for Allowable Emissions Code: RULE	2.	Future Effective Date of Allowable Emissions: NA		
3.	Allowable Emissions and Units: 2.0 g/hp-hr.	4.	Equivalent Allowable Emissions: 2.00 lb/hour 0.10 tons/year		
5.	Method of Compliance: Monitor hours of operation				
6.	Allowable Emissions Comment (Description	of (Operating Method):		
	60.4230 Table 1 limits NOX emissions to 2 g/hhp-hr.				
All	lowable Emissions Allowable Emissions	of_	_		
1.	Basis for Allowable Emissions Code:	2.	Future Effective Date of Allowable Emissions:		
3.	Allowable Emissions and Units:	4.	Equivalent Allowable Emissions: lb/hour tons/year		
5.	Method of Compliance:	•			
6.	Allowable Emissions Comment (Description	of (Operating Method):		
All	lowable Emissions Allowable Emissions	of_			
1.	Basis for Allowable Emissions Code:	2.	Future Effective Date of Allowable Emissions:		
3.	Allowable Emissions and Units:	4.	Equivalent Allowable Emissions: lb/hour tons/year		
5.	Method of Compliance:				
6.	Allowable Emissions Comment (Description	of	Operating Method):		

POLLUTANT DETAIL INFORMATION
Page [2] of [6]

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

I otential, Estimated Fugitive, and Dasenne o	e riojecteu Actuar Linis	310113
1. Pollutant Emitted:	2. Total Percent Efficie	ency of Control:
CO	96.6	
3. Potential Emissions:	ı <u>–-</u>	netically Limited?
,		'es No
5. Range of Estimated Fugitive Emissions to tons/year	(as applicable): NA	
6. Emission Factor: 4.0 g/hp-hr at 96.6% cont	rol	7. Emissions Method Code:
Reference: Vendor data		5
8.a. Baseline Actual Emissions (if required):	8.b. Baseline 24-month	Period:
NA tons/year	From: T	o:
9.a. Projected Actual Emissions (if required):	9.b. Projected Monitori	ng Period:
NA tons/year	5 years	10 years
NA tons/year		
11. Potential, Fugitive, and Actual Emissions Comment:		
Calculations based on emergency generator usage of 100 hours per year and minimum control efficiency.		

A-66

DEP Form No. 62-210.900(1) - Form

Effective: 3/16/08

EMISSIONS UNIT INFORMATION Section | 3 | of | 3 |

POLLUTANT DETAIL INFORMATION
Page | 2 | of | 6 |

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions 1 of 1

1.	Basis for Allowable Emissions Code: RULE	2.	Future Effective Date of Allowable Emissions: NA	
3.	Allowable Emissions and Units: 4.00 g/hp-hr.	4.	Equivalent Allowable Emissions: 4.00 lb/hour 0.20 tons/year	
5.	Method of Compliance: Monitor hours of operation			
6.	Allowable Emissions Comment (Description	of (Operating Method):	
	60.4230 Table 1 limits CO emissions to 4 g/h	hp-l	nr.	
Al	lowable Emissions Allowable Emissions			
1.	Basis for Allowable Emissions Code:	2.	Future Effective Date of Allowable Emissions:	
3.	Allowable Emissions and Units:	4.	Equivalent Allowable Emissions: lb/hour tons/year	
5.	Method of Compliance:	J.		
6.	6. Allowable Emissions Comment (Description of Operating Method):			
Al	lowable Emissions Allowable Emissions	of_		
1.	Basis for Allowable Emissions Code:	2.	Future Effective Date of Allowable Emissions:	
3.	Allowable Emissions and Units:	4.	Equivalent Allowable Emissions: lb/hour tons/year	
5.	Method of Compliance:			
6.	Allowable Emissions Comment (Description	of	Operating Method):	
	,			

DEP Form No. 62-210.900(1) - Form

Section [3]

of |3|

POLLUTANT DETAIL INFORMATION

Page [3] of [6]

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Pollutant Emitted: VOC	2. Total Percent Efficiency of Control: 0
3. Potential Emissions: 0.29 lb/hour 0.01	4. Synthetically Limited? Yes No
5. Range of Estimated Fugitive Emissions to tons/year	(as applicable): NA
6. Emission Factor: 2.91 g/hp-hr THC Reference: Vendor data	7. Emissions Method Code: 5
8.a. Baseline Actual Emissions (if required): NA tons/year	8.b. Baseline 24-month Period: From: To:
9.a. Projected Actual Emissions (if required): NA tons/year	9.b. Projected Monitoring Period: 5 years 10 years
10. Calculation of Emissions: Assume VOC 10% of THC = 0.29 g/hp-hr (0.29 g/hp-hr)(454 bhp)(1 lb/453.6 g) = 0.29 (0.29 lb/hr)(100 hr/yr)(1 ton/2000 lb) = 0.01	
11. Potential, Fugitive, and Actual Emissions Co	omment:
Calculations based on emergency generator usage	ge of 100 hours per year.

DEP Form No. 62-210.900(1) - Form

POLLUTANT DETAIL INFORMATION Page | 3 | of | 6 |

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1.	Basis for Allowable Emissions Code: RULE	2.	Future Effective Date of Allowable Emissions: NA
3.	Allowable Emissions and Units: 0.29 g/hhp-hr.	4.	Equivalent Allowable Emissions: 0.29 lb/hour 0.01 tons/year
5.	Method of Compliance: Monitor hours of operation		
6.	Allowable Emissions Comment (Description	of	Operating Method):
	60.4230 Table 1 limits VOC emissions to 1 g	/hhp	-hr.
Al	lowable Emissions Allowable Emissions	of_	_
1.	Basis for Allowable Emissions Code:	2.	Future Effective Date of Allowable Emissions:
3.	Allowable Emissions and Units:	4.	Equivalent Allowable Emissions: lb/hour tons/year
5.	Method of Compliance:		
6.	Allowable Emissions Comment (Description	of	Operating Method):
Al	lowable Emissions Allowable Emissions	of_	
1.	Basis for Allowable Emissions Code:	2.	Future Effective Date of Allowable Emissions:
3.	Allowable Emissions and Units:	4.	Equivalent Allowable Emissions: lb/hour tons/year
5.	Method of Compliance:		
6.	Allowable Emissions Comment (Description	of	Operating Method):

POLLUTANT DETAIL INFORMATION
Page | 4 | of | 6 |

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

- Ottomated - West of Wild - Substitute of		<u> </u>
Pollutant Emitted: SO2	2. Total Percent Efficie	ency of Control:
3. Potential Emissions:	4. Synth	netically Limited?
0.117 lb/hour 0.006	<u>~~</u>	es 🗍 No
5. Range of Estimated Fugitive Emissions	(as applicable): NA	
to tons/year		
6. Emission Factor: 10 grains / 100 scf		7. Emissions
		Method Code:
Reference: FERC limit		2
8.a. Baseline Actual Emissions (if required):	8.b. Baseline 24-month	Period:
NA tons/year	From:	o:
9.a. Projected Actual Emissions (if required):	9.b. Projected Monitori	ng Period:
NA tons/year	5 years	10 years
10.01.1.1		
10. Calculation of Emissions: (10 gr S/100 scf)(4100 scf/hr)(1 lb/7000 gr) = 0.059 (0.059 lb S/hr)(2 lb SO2/lb S) = 0.117 lb SO2/hr (0.117 lb SO2/hr)(100 hr/yr)(1 ton/2000 lb) = 0.006	ton/yr	
11. Potential, Fugitive, and Actual Emissions Co	omment:	
Calculations based on emergency generator usa	ge of 100 hours per year.	

POLLUTANT DETAIL INFORMATION
Page | 4 | of | 6 |

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions NA of

1.	Basis for Allowable Emissions Code:	2.	Future Effective Date of Allowable Emissions: NA
3.	Allowable Emissions and Units:	4.	Equivalent Allowable Emissions: lb/hour tons/year
5.	Method of Compliance:		
6.			Operating Method):
	Basis for Allowable Emissions	or _ 2.	Future Effective Date of Allowable
1.	Dasis for Anowable Linissions Code.	2.	Emissions:
3.	Allowable Emissions and Units:	4.	Equivalent Allowable Emissions:
ļ	M.1.1.60 L		lb/hour tons/year
	Method of Compliance:	- of (Omorating Mathad)
6.	Allowable Emissions Comment (Description		Sperating Wethod).
<u>Al</u>	lowable Emissions Allowable Emissions	of_	
1.	Basis for Allowable Emissions Code:	2.	Future Effective Date of Allowable Emissions:
3.	Allowable Emissions and Units:	4.	Equivalent Allowable Emissions: lb/hour tons/year
5.	Method of Compliance:		
6.	Allowable Emissions Comment (Description	of	Operating Method):

DEP Form No. 62-210.900(1) - Form

POLLUTANT DETAIL INFORMATION
Page [5] of [6]

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Pollutant Emitted: PM	2. Total Percent Efficiency of Control:
3. Potential Emissions: 0.083 lb/hour 0.004	4. Synthetically Limited? Yes No
5. Range of Estimated Fugitive Emissions to tons/year	(as applicable): NA
6. Emission Factor: 0.01941 lb/MM Btu Reference: Table 3.2.3 AR 42.7/00	7. Emissions Method Code:
Reference: Table 3.2-3, AP-42 7/00 8.a. Baseline Actual Emissions (if required): NA tons/year	8.b. Baseline 24-month Period: From: To:
9.a. Projected Actual Emissions (if required): NA tons/year	9.b. Projected Monitoring Period: 5 years 10 years
10. Calculation of Emissions: (0.01941 lb/MM Btu)(4.26 MM Btu/hr) = 0.000 (0.083 lb/hr)(100 hr/yr)(1 ton/2000 lb) = 0.000 lb)	004 ton/y
11. Potential, Fugitive, and Actual Emissions Co	omment:
Calculations based on emergency generator usage	ge of 100 hours per year.

EMISSIONS UNIT INFORMATION Section | 3 | of | 3 |

POLLUTANT DETAIL INFORMATION
Page | 5 | of | 6 |

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions NA of

1.	Basis for Allowable Emissions Code:	Future Effective Date of Allowable Emissions: NA
3.	Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5.	Method of Compliance:	
6.	Allowable Emissions Comment (Description	of Operating Method):
Al	lowable Emissions Allowable Emissions	of
1.	Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3.	Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5.	Method of Compliance:	•
6.	Allowable Emissions Comment (Description	of Operating Method):
All	owable Emissions Allowable Emissions	of
1.	Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3.	Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5.	Method of Compliance:	
6.	Allowable Emissions Comment (Description	of Operating Method):

EMISSIONS UNIT INFORMATION Section | 3 | of | 3 |

POLLUTANT DETAIL INFORMATION
Page | 6 | of | 6 |

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Pollutant Emitted: HAPS	2. Total Percent Efficiency of Control:		
3. Potential Emissions:	4. Synthetically Limited?		
0.10 lb/hour 0.005	5 tons/year		
	(as applicable): NA		
to tons/year			
6. Emission Factor: 0.0234 lb/MM Btu	7. Emissions		
Deferences AD 42 Table 2.2.2	Method Code:		
Reference: AP-42, Table 3.2-3			
8.a. Baseline Actual Emissions (if required): NA tons/year	8.b. Baseline 24-month Period:		
	From: To:		
9.a. Projected Actual Emissions (if required):	9.b. Projected Monitoring Period:		
NA tons/year	5 years 10 years		
10. Calculation of Emissions:			
(0.0234 lb/MM Btu)(4.26 MM Btu/hr) = 0.1 (0.10 lb/hr)(8760 hr/yr)(1 ton/2000 lb) = 0.0	005 ton/y		
11. Potential, Fugitive, and Actual Emissions Co	omment:		
Calculations based on emergency generator usage	ge of 100 hours per year.		

DEP Form No. 62-210.900(1) - Form

Effective: 3/16/08

POLLUTANT DETAIL INFORMATION [6] of [6]

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions NA of

1.	Basis for Allowable Emissions Code:	2.	Future Effective Date of Allowable Emissions: NA
3.	Allowable Emissions and Units:	4.	Equivalent Allowable Emissions: lb/hour tons/year
5.	Method of Compliance:		
	Allowable Emissions Comment (Description		
	owable Emissions Allowable Emissions Basis for Allowable Emissions Code:		Future Effective Date of Allowable
1.	Dasis for Allowable Emissions Code.	4.	Emissions:
3.	Allowable Emissions and Units:	4.	Equivalent Allowable Emissions:
		<u> </u>	lb/hour tons/year
5.6.	Method of Compliance: Allowable Emissions Comment (Description	ofC	Operating Method):
All	owable Emissions Allowable Emissions	of_	_
1.	Basis for Allowable Emissions Code:	2.	Future Effective Date of Allowable Emissions:
3.	Allowable Emissions and Units:	4.	Equivalent Allowable Emissions: lb/hour tons/year
5.	Method of Compliance:		
6.	Allowable Emissions Comment (Description	ofC	Operating Method):

A-75

DEP Form No. 62-210.900(1) - Form

Effective: 3/16/08

Section [3]

of [3]

G. VISIBLE EMISSIONS INFORMATION

Complete Subsection G if this emissions unit is or would be subject to a unit-specific visible emissions limitation.

Visible Emissions Limitation: Visible Emissions Limitation NA of

			
1.	Visible Emissions Subtype:	2. Basis for Allowable C Rule	Opacity: Other
3.	Allowable Opacity:		
	- · · · · · · · · · · · · · · · · · · ·	cceptional Conditions:	%
	Maximum Period of Excess Opacity Allow		min/hour
	2. Method of Compliance:		
	2. Wethod of Comphanice.		
	3. Visible Emissions Comment:		
	3. Visiole Emissions comment.		
		- 190	-
Vi	sible Emissions Limitation: Visible Emissi	ions Limitation of	
1.	Visible Emissions Subtype:	2. Basis for Allowable	Opacity:
	· ·	Rule	Other
3	Allowable Opacity:		
٥.	• •	cceptional Conditions:	%
	Maximum Period of Excess Opacity Allow		min/hour
			
4.	Method of Compliance:		
	Visible Emissions Comment:		
٥.	Visible Emissions Comment.		

Section [3]

of [3]

H. CONTINUOUS MONITOR INFORMATION

Complete Subsection H if this emissions unit is or would be subject to continuous monitoring.

Continuous Monitoring System: Continuous Monitor NA of ___

1.	Parameter Code:	2. Po	llutant(s):	
3.	CMS Requirement:	Ru	ıle	Other
4.	Monitor Information Manufacturer:			
	Model Number:		Serial Nu	ımber:
5.	Installation Date:	6. Per	rformance	Specification Test Date:
7.	Continuous Monitor Comment:			
Co	ontinuous Monitoring System: Continuous	Monito	r of	
1.	Parameter Code:	2.	Pollutant	(s):
3.	CMS Requirement:	☐ Ru	ıle	Other
4.	Monitor Information Manufacturer:			
	Model Number:		Serial Nu	ımber:
5.	Installation Date:	6.	Performa	ance Specification Test Date:
7.	Continuous Monitor Comment:	ı		

Section [3] **of** [3]

I. EMISSIONS UNIT ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

1.	Process Flow Diagram: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) Attached, Document ID: <u>Attach. B</u> Previously Submitted, Date
2.	Fuel Analysis or Specification: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) Attached, Document ID:

DEP Form No. 62-210.900(1) - Form

Section [3]

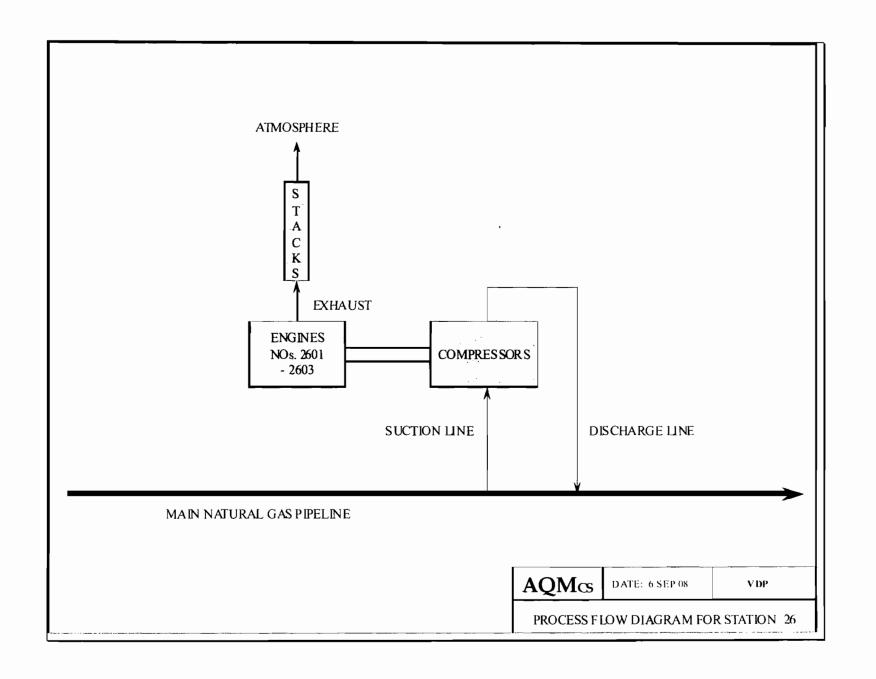
of [3]

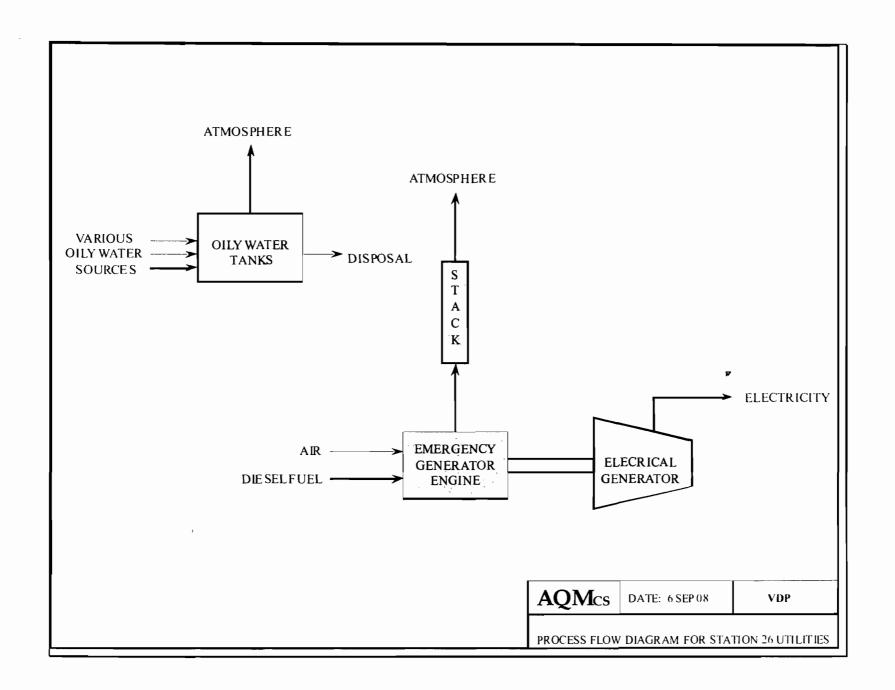
I. EMISSIONS UNIT ADDITIONAL INFORMATION (CONTINUED)

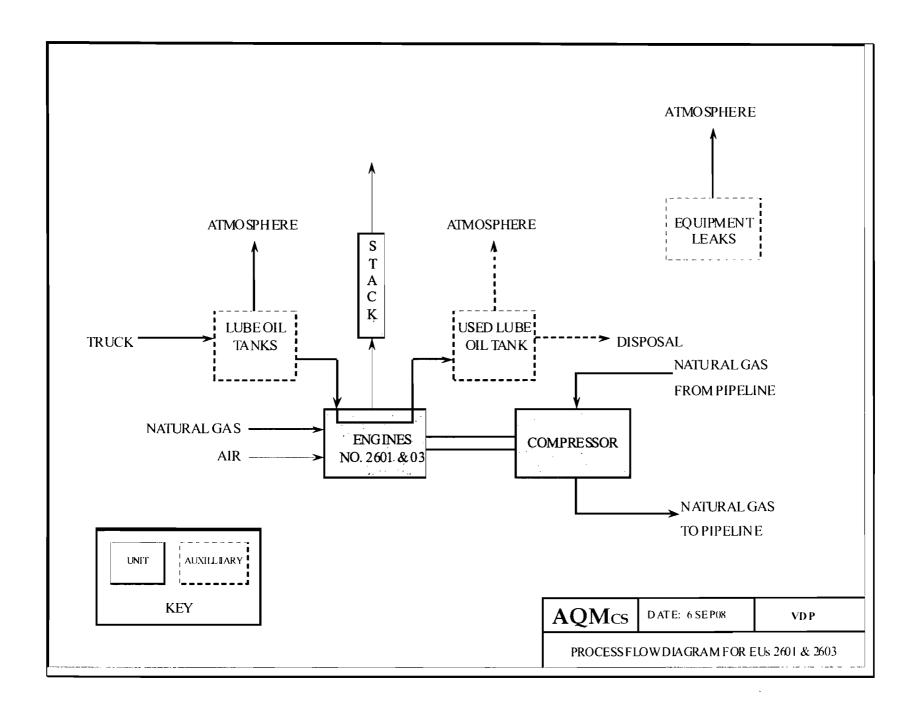
Additional Requirements for Air Construction Permit Applications

1. Control Technology Review and Analysis (Rules 62-212.400(10) and 62-212.500(7),
F.A.C.; 40 CFR 63.43(d) and (e)):
Attached, Document ID: <u>Narr. Sec. 3.0</u> Not Applicable
2. Good Engineering Practice Stack Height Analysis (Rules 62-212.400(4)(d) and 62-
212.500(4)(f), F.A.C.):
Attached, Document ID: Not Applicable
3. Description of Stack Sampling Facilities: (Required for proposed new stack sampling facilities only)
Attached, Document ID: <u>See note below</u> Not Applicable
Additional Requirements for Title V Air Operation Permit Applications
1. Identification of Applicable Requirements:
Attached, Document ID: <u>NA</u>
2. Compliance Assurance Monitoring:
Attached, Document ID: Not Applicable
3. Alternative Methods of Operation:
Attached, Document ID: Not Applicable
4. Alternative Modes of Operation (Emissions Trading):
Attached, Document ID: Not Applicable
Additional Requirements Comment
Supplemental information is provided in the narrative description accompanying these forms.
The manufacturer has not completed design specifications and has not provided final emission
rates at this time. Emissions will comply with applicable 40 CFR Subpart JJJJ requirements.
Specifications for the sampling facilities have not been completed at this time. Final
specifications will comply with USEPA and FDEP regulatory requirements.

Attachment B
Process Flow Diagram







	•	
Λ	Nttachmant C	
	Attachment C	
	Attachment C sions of Unconfined Particulate Mat	ter
		ter
Precautions to Prevent Emis		ter
Precautions to Prevent Emis	sions of Unconfined Particulate Mat	ter
Precautions to Prevent Emis	sions of Unconfined Particulate Mat	ter
Precautions to Prevent Emis	sions of Unconfined Particulate Mat	ter
Precautions to Prevent Emis	sions of Unconfined Particulate Mat	ter

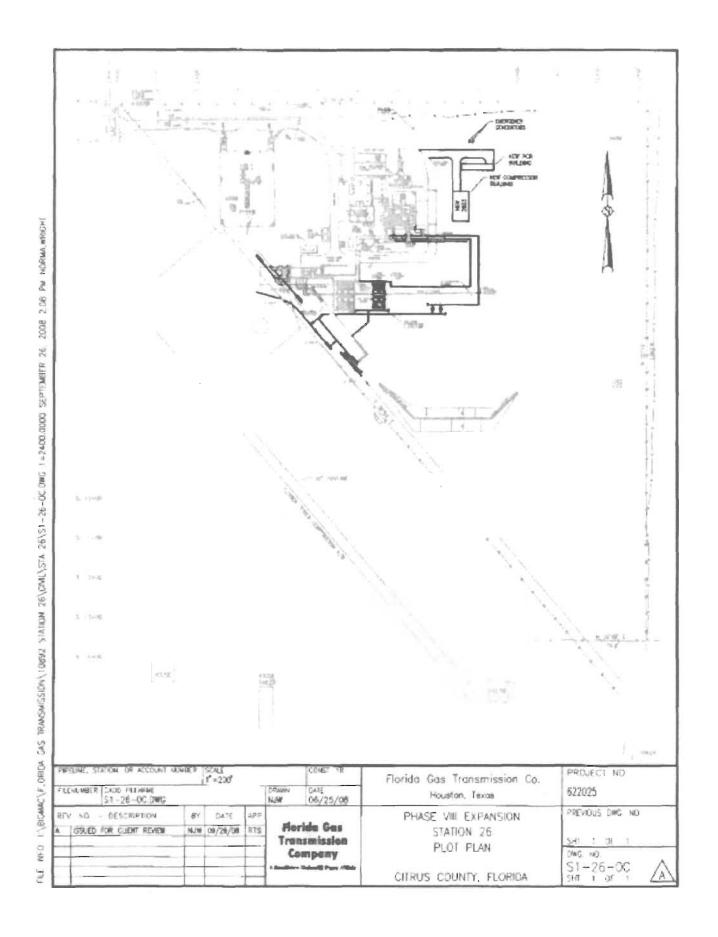
Precautions to Prevent Emissions of Unconfined Particulate Matter

Precautions that will be taken to prevent unconfined emissions of unconfined particulate matter include:

- a) Chemical or water application to unpaved roads and unpaved yard areas;
- b) Paving and maintenance of roads, parking areas and yards; Landscaping or planting of vegetation;
- d) Other techniques, as necessary.

Attachment D

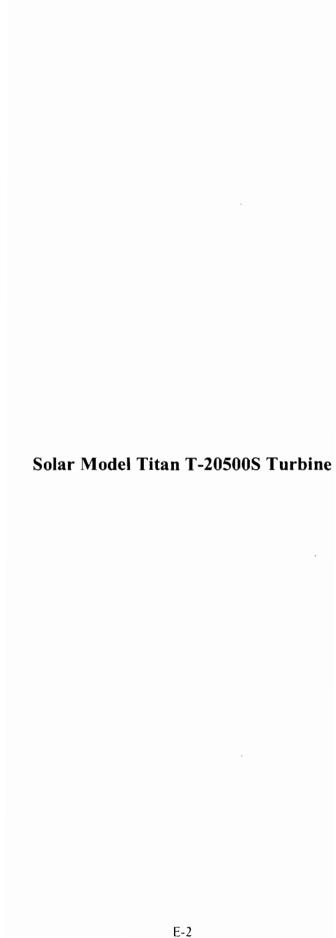
Plot Plan



Attachment E

Vendor Information

Solar Model Titan T-20500S Turbine Generac SG300



Solar Turbines

19465 Hp

PREDICTED EMISSION PERFORMANCE

A Caterpillar Company

Customer FGT		·
Jeb ID		
HO08-0024		
Inquiry Number		
Run Sy	Date Run	
James Belmont	10-Jul-08	

NOX EMISSIONS

Engine Model TITAN 130-20502S CS/MD 59F MATCH	
Fuel Type	Water Injection
SD NATURAL GAS	NO
Engine Emissions Data	
REV. 0.0	

UHC EMISSIONS

						JL		
100	.0% Load	Elev.	0 ft	Rel. Humidity	60.0%	Ter	nperature	59.0 Deg. F
)2		15.00		25.00		7 [25	5.00
yr		37.31		37.86] [21	1.69

CO EMISSIONS

PPMvd at 15% O2	15.00	25.00	25.00
ton/yr	37.31	37.86	21.69
ibm/MMBtu (Fuel LHV)	0.060	0.061	0.035
lbm/(MW-hr)	0.59	0.60	0.34
(gas turbine shaft pwr)			
lbm/hr	8.52	8.64	4.95

Notes

- For short-term emission limits such as lbs/hr., Solar recommends using "worst case" anticipated operating conditions specific to the application and the site conditions. Worst case for one pollutant is not necessarily the same for another.
- 2. Solar's typical SoLoNOx warranty, for ppm values, is available for greater than 0 deg F, and between 50% and 100% load for gas fuel, and between 65% and 100% load for liquid fuel (except for the Centaur 40). An emission warranty for non-SoLoNOx equipment is available for greater than 0 deg F and between 80% and 100% load.
- 3. Fuel must meet Solar standard fuel specification ES 9-98. Emissions are based on the attached fuel composition, or, San Diego natural gas or equivalent.
- 4. If needed, Solar can provide Product Information Letters to address turbine operation outside typical warranty ranges, as well as non-warranted emissions of SO2, PM10/2.5, VOC, and formaldehyde.
- 5. Solar can provide factory testing in San Diego to ensure the actual unit(s) meet the above values within the tolerances quoted. Pricing and schedule impact will be provided upon request.
- Any emissions warranty is applicable only for steady-state conditions and does not apply during start-up, shut-down, malfunction, or transient event.

Solar Turbines

A Caterpillar Company

PREDICTED ENGINE PERFORMANCE

Customer		
FGT		
Jeb ID HO08-0024		<u>_</u>
Run By	Date Run	
James Belmont	10-Jul-08	
Engine Performance Code	Engine Performance Data	
REV. 3.40	REV. 1.0	

Model TITAN 130-20502S	
Package Type CS/MD	
59F MATCH	
Fuel System GAS	
Fuel Type SD NATURAL GAS	

DATA FOR MINIMUM PERFORMANCE

Elevation	feet	0
Inlet Loss	in H20	4.0
Exhaust Loss	in H20	4.0
Engine Inlet Temperature	deg F	59.0
Relative Humidity	%	60.0
Driven Equipment Speed	RPM	8351
Specified Load	HP.	FULL
Net Output Power	HP	19465
Fuel Flow	mmBtu/hr	142.59
Heat Rate	Btu/HP-hr	7326
Therm Eff	%	34.732
Engine Exhaust Flow	lbm/hr	393041
Exhaust Temperature	deg F	944

Fuel Gas Composition (Volume Percent)

Methane (CH4)	92.79
Ethane (C2H6)	4.16
Propane (C3H8)	0.84
N-Butane (C4H10)	0.18
N-Pentane (C5H12)	0.04
Hexane (C6H14)	0.04
Carbon Dioxide (CO2)	0.44
Hydrogen Sulfide (H2S)	0.0001
Nitrogen (N2)	1.51

Fuel	Gas	Pro	perties
------	-----	-----	---------

Nitrogen (N2)		1.51			
LHV (Btu/Scf)	939.2	Specific Gravity	0.5970	Wobbe Index at 60F	1215.6

This performance was calculated with a basic inlet and exhaust system. Special equipment such as low noise silencers, special filters, heat recovery systems or cooling devices will affect engine performance. Performance shown is "Expected" performance at the pressure drops stated, not guaranteed.

Generac SG300



STATEMENT OF EXHAUST EMISSIONS NAT GAS FUELED GENERATOR

The measured emission values provided here are proprietary to Generac and its' authorized dealers. This information may only be disseminated upon request, to regulatory governmental bodies for emissions permitting purposes or to specifying organizations as submittal data when expressly required by project specifications, and shall remain confidential and not open to public viewing. This information is not intended for compilation or sales purposes and may not be used as such, nor may it be reproduced without the expressed written permission of Generac Power Systems, Inc. The data provided shall not be meant to include information made public by Generac.

Generator Type: SG300

kWe Rating:

Engine Size:

13.3 Liter

Maximum BHP: 454

Aspiration:

Engine Family: Generac 13.3 Liter 6 Cylinder

Turbocharged-aftercooled

Speed (RPM):

2350 RPM

Additional Equipment Description: Commercial Natural Gas

Emissions Test 5 mode

Engine Certification: No Catalyst

Measured Emissions (grams/brake horsepower-hour) based on parent engine @ 454 bhp

<u>co</u>	NOx	HC	THC + NO _x
118.3	2.12	2.91	5.03

- The stated values are actual exhaust emission test measurements obtained from a unit representative of the generator type and engine described above.
- Values based on 5-mode testing are official data of record as submitted to regulatory agencies for certification purposes. Testing was conducted in accordance with prevailing EPA & CARB protocols, which are typically accepted by SCAOMD and other regional authorities.
- Values based on full load testing are provided for reference only due to 5-mode test data being unavailable. Data may be based on testing performed by either the engine supplier or Generac Power Systems.
- No emission values provided above are to be construed as guarantees of emission levels for any given Generac generator unit.
- Generac Power Systems reserves the right to revise this information without prior notice.
- Consult state and local regulatory agencies for specific permitting requirements.
- The emission performance data supplied by the equipment manufacturer is only one element required toward completion of the permitting and installation process. State and local regulations may vary on a case-by-case basis and must be consulted by the permit applicant/equipment owner prior to equipment purchase or installation. The data supplied herein by Generac Power Systems cannot be construed as a guarantee of installability of the generating set.

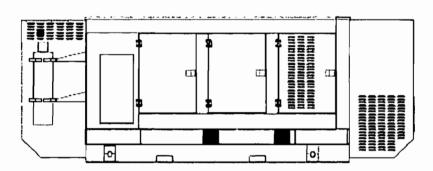
INDUSTRIAL SALES P.O. BOX 8 • WAUKESHA, WI 53187 • 262-544-4800 • FAX 262-544-4854

> SSD, E6297W Rev Date 8-28-06

SG275 SG300

Liquid Cooled Gas Engine Generator Sets

<u>Standby Power Rating</u> 275 KW 60 Hz / 275 KVA 50 Hz 300 KW 60 Hz / 300 KVA 50 Hz





FEATURES

- INNOVATIVE DESIGN & PROTOTYPE TESTING are key components of GENERAC'S supposed in IMPROVING POWER BY DESIGN." Built doesn't stop there. To let commitment to component testing, relability testing, smill commental testing, gloss besting to applicable CSA, NEMA, EGSA, and other standards, allows you to choose GENERAC POWER SYSTEMS with the confidence that these systems will provide superior performance.
- TEST CRITERIA:
 - ✓ PROTOTYPE TESTED
 - ✓ SYSTEM TORSIONAL TESTED
 - Z ELECTRO-MAGNETIC INTERFERENCE
 - Z. NEMA MG1 EVALUATION
 - MOTOR STARTING ABILITY
 - SHORT CIRCUIT TESTING
 - ✓ UL2200 COMPLIANCE AVAILABLE

- SOLID-STATE, FREQUENCY COMPENSATED DIGITAL VOLTAGE REGULATION. This state-or-the-erlip over maximizing regulation system is standard on all General models. It provides optimized FAST RESPONSE to changing load conditions and MAXIMILIM MOTOR STARTING CAPABILITY by electronically torque maighting the surge heads to the engline.
- SINGLE SOURCE SERVICE RESPONSE from Generals dealer network provides parts and service know-how for the entire unit, from the engine to the smallest electronic component. You are never on your own when you own a GENERAC POWER SYSTEM.
- GENERAC TRANSFER SWITCHES, SWITCHGEAR AND ACCESSORIES. Long life and reliability is synonymous with GENERAC POWER SYSTEMS. One reason for this combinance is that the GENERAC product line includes its own transfer systems, accessories, switchgear and controls for total system compatibility.



APPLICATION & ENGINEERING DATA

SG275/SG300

GENERATOR SPECIFICATIONS

TYPE ______Four-pole, revolving field STATOR INSULATION...... COUPLING.......Flexible Disc NOTE: Generator rating and performance in accordance with ISO8528-5, BS5514, SAE J13N9, ISO3048 and DIN6271 standards. **EXCITATION SYSTEM** PERMANENT MAGNET PILOT EXCITER....... Eighteen-pole exciter / Magnetically coupled DC current / Mounted outboard or main bearing / 3 Phase Sensing, ± 1% regulation ∠

GENERATOR FEATURES

- Pevolving field heavy duty generator
- ☐ Directly connected to the engine ☐ Operating temperature rise 120 °C above a 40 °C amplient
- ☐ Insulation is Class Hiraled at 150 °C rise
- All prototype models have passed three phase short droublessing.

CONTROL PANEL FEATURES

- ☐ TWO FOUR LINE LCD DISPLAYS READ:
 - Voltage (all phases)
 - Fower factor
 - · KAR • Engine speed
 - · Run hours
 - · Fault history

 - Coolant hamperature
 Low oil pressure shuldown
 - Overvottage
 - Low ecolant level
 - Not in auto position diashing light)
 - · XTS selection
- ☐ INTERNAL FUNCTIONS:
 - PT function for eiternator protection from tine to neutral and line to tine short droubs.

Current (all phases)

· Transfer switch status

· High coclant temperature strutcown

Low fuel pressure

Service reminders

• Of pressure

Leegare/O+

· Time and date

Low opplant level

• Exercise speed

• kW

- Emergency slop
- Programmable auto crank function
- · 2 wire start for any transfer switch
- · Communicates with the General HTS transfer switch
- Built-in 7 day exerciser
- Adjustable engine speed at exerciser
- RS232 port for Gentink* control
- R\$485 port remote communication Cantus artificacionia
- Governor controller and voltage regulator are built into the master control board.
- Temperature range -40 °C to 70 °C

ENGINE SPECIFICATIONS

ENGINE OF EOIL IOAT TONG
MAKE GENERAC
MCCEL 13.9GTA
CYUNDERS 6 In-line
DISPLACEMENT
DORE
STROKE 150 mm (5.91 in.)
OCMPRESSION RATIO
INTAKE AIR
NUMBER OF MAIN BEARINGS
CONNECTING RCOS
CYUNDER HEADCast Iron with Overhead Valve
CYUNDER UNERS
IGNITION
PISTONS Heal-Resistant Alicy with 4 Rings
CRANKSHAFT Induction-Hardened, Die-Forged Carbon Steel
YALVE TRAIN
LIFTER TYPE Sold
INTAKE VALVE MATERIAL
EXHAUST VALVE MATERIALIncome: Alloy High Temp.
HARDENED VALVE SEATSHight Temp. Alloy Stellille Faced
ENCARE CONTENIOR
ELECTRONIC Standard
FREQUENCY REGULATION, NO-LOAD TO FULL LOAD, Jisochionous
STEADY STATE REGULATION±0.25%
LUBRICATION SYSTEM
TYPE OF OIL PUMPGear Driven
OIL FILTER
CRANKCASE CAPACITY
COOLINGSYSTEM
TYPE OF SYSTEMPressurized, citized recovery
WATER PUMP Pre-lubed, self-sealing
TYPE OF FAN Pusher
NUMBER OF FAN BLADES
DIAMETER OF FAN
COOLANT HEATER240V, 2000 W
FIEL CUCTEM
<u>FUEL SYSTEM</u>
FUEL
D Natural Gas
CARBURETOR
SECONDARY FUEL REGULATOR
AUTOMATIC FUEL LOCKOFF SOLENOID
OPERATING FUEL PRESSURE SYSTEMS 10" to 15" H,O
CLEATERAL OVOTER
ELECTRICAL SYSTEM
BATTERY CHARGE ALTERNATOR
STARTER MOTOR24 V
RECOMMENDED BATTERY(2) - 12 V, 925 CCA, 31
GROUND POLARITY

Saint parmillans - Standar Applicable for supplying smergericy power for the duration of the visity power collage. He overtood capacity is available for the rating. (All ratings in accordance with BBSS14,1903044 and Enrice This Prime (Unimited Funding Time): Applicable to supplying electric power in that of commencing purchased power. Prime power is the maximum power available at variable for a 1994 overload capacity is available for time in 12 hours. (All ratings in accordance with B9S514,1903046, 1908653 and 0 NKC71).



SG275/SG300

OPERATING DATA	. sa	275	l so	300
GENERATOR OUTPUT VOLTAGE/KW-60Hz	KiY	Rated AMP	KW	Rated AMP
120/206V, 3-phase, 0.9 pt Note: consultyour	275	964	300	1041
120/240V, 3-phease, 0.9 pt General Sealer for Committee and Committee an	275	827	300	902
2774809, 34priase, 9.8 pr	275	413	300	451
600V, 3-phase, 0.8 pt	275	331	300	361
MOTOR STARTING				-
Maximum at 35% instantaneous voltage dip	208/240V	180A	208/240Y	480V
with standard alternator—60 Hz	800 KVA	1060 KVA	900 KVA	1060 KVA
with optional afternator—60 Hz	1000 KVA	1350 KVA	1000 KVA	1350 KVA
FUEL Supremention 40 Mg 100% Load #1 h	<u>N.</u>	<u>G.</u>	<u>N.</u>	<u>G.</u>
Fuel-consumption—60 Hz—100% Load int ³ ht. No Load	O.	16	l en	ea.
No Med 25%	•	.n. 57	16	. =
2075 50%		53	23	
75%		00	318	
100%		92	419	
CONTRIC			_	
COOLING Coolant capacity System (it. (US gal.)	5 2 0	(15)	56.9	/45)
Ocolani flow/min. System include gent, Ocolani flow/min. 60 Hz US gent,		(19) 38		(15) 8)
Heat rejection to contant BTU/hr.		∞ 5,600	1,048	
inletalt 60 Hz (cfm)		200	19,3	
Max. operating air temp, onto rediator* _ °C (°F)		140)	90 (
Max. operating ambient temp." 10 ("F)	50 (122)	50 (122)
Max, external pressure drop on rad. In. H ₂ O	Ò.	5	o.	5
COMBUSTION AIR REQUIREMENTS Flow at railed power 60 Hz mirroin. (cm)	31.1 (1100)	34 (1	200)
EXHAUST				
Extrausi flow at raise output 60 Hz m/rmin. (cfm)	1 12 (3 98 0)	122 (1 335)
Max, recommended back pressure Kpa (Hg)		1.5°)	5.0 (
Exhaust lamp, at reted output "F	14	70	14	
Exhaust outlet size (flange)	4.	I.D.	4.1	.D.
ENGINE				
Rated RPM 60 Hz	23	00	23	90
HP at lated KW 60 Hz		เจ้	45	
Piston speed 80 Hz m/min. (ft./min.)		2265)	590 (i	
BMEP 60 Hz	17	78	19	i3
DERATION FACTORS				
Temperature			1	
1.9% for every 10°C above - °C		0	4	
1.1% for every 10°F above - °F	10	04	10)4
Althude				
0.7% for every 100 m above · m		20	10	
2,1% for every 1000 ft, above - ft,	40	00	35	ù t i

STANDARD ENGINE & SAFETY FEATURES

SG275/SG300

- High Cottant Temperature Automatic Shutdown
- Low Coplant Level Automatic Shutdown
- 🖶 Low Oil Pressure Automatic Shutdown
- Overspeed Automatic Stutt/Dwn (Solid-state)
- Crank Limiter (Solid-state)
- Of Easin Extension
- Radiato: Crain Extension
- Factory-Installed Cool Flow Radiator
- Closed Coolant Recovery System
- UV/Ozone Resistant Hoses
- Rubber-Booted Engine Electrical Connections
- Isochronous Governor

- Fuel Lockoff Scienoid
- Secondary Fuel Regulator (N.G.)
- Steinless Steel Flexible Exhaust Connection
- Battery Charge Atternator
- Battery Cables
- Battery Tray
 Vibration is Habiton of Unit to Mounting Base
- 24 Volt, Solenoid-Activated Starter Motor.
- At Cleaner
- Fan Guard
- Control Conselle (H100)

OPTIONS

- OPTIONAL COOLING SYSTEM ACCESSORIES
 - Radiator Exet Adepter
- OPTIONAL FUEL ACCESSORIES
 - Flexible Fuel Unes
- OPTIONAL EXHAUST ACCESSORIES
 - Orlitical Exhaust Stemper
- OPTIONAL ELECTRICAL ACCESSORIES
 - Bettery, (2) 12 Vol., 135 A.H., 40LT
 Battery, (2) 12 Vol., 225 A.H., 90

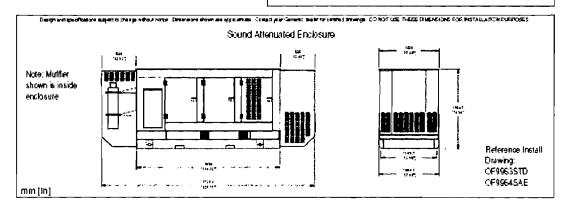
 - Bettery Heater

 - 2A Bellery Charger
 10A Dual Release Bellery Charger
- OPTIONAL ALTERNATOR ACCESSORIES
 - Atternator Strip Heater
 - Affernator Tropicalization
 - Main Line Circuit Breaker
- CONTROL CONSOLE OPTIONS
 Digital Controller H100 see specification 0172110SBY

- ADDITIONAL OPTIONAL EQUIPMENT
 - Automatic Transfer Switch (GTS or HTS).
 - 20 Light Remote Annundator
 Remote Relay Panels

 - Unil Vibration Isolators
- O Of Make-Up System
- Of Healer
 5 Year Warranties
- C Export Booling
- Di GenUnk® Communications Software
- OPTIONAL ENCLOSURES
 - Weather Protective
 - Sound Aftenuated
 - Aluminum and Stainless Steet
 - Enclosed Muller

Distributed by:			



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Attachment F

Emission Calculations

Compressor Station No. 26

Engine No. 2603 EPN: 003

NOx Emissions: (Based on Vendor Data)

1b NOx/hr = 8.52

tons NOx/yr = (lb NOx/hr)(2000 lb/1 ton)(8760 hr/1 yr)

= (8.52 lb/hr)(2000 lb/1 ton)(8760 hr/yr)

= 37.318

CO Emissions: (Based on Vendor Data)

Ib CO/hr = 8.64

tons CO/yr = (lb CO/hr)(2000 lb/1 ton)(8760 hr/1 yr)

= (8.64 lb/hr)(2000 lb/1 ton)(8760 hr/yr)

= 37.843

VOC Emissions: (Based on Vendor Data)

lb UHC/hr = 4.950

lb VOC/yr = (0.495 UHC lb/hr) * (VOC fraction of 0.1)

= 0.495

tons VOC/yr = (lb VOC/hr)(2000 lb/1 ton)(8760 hr/1 yr)

= (0.50 lb/hr)(2000 lb/1 ton)(8760 hr/yr)

= 2.168

SO2 Emissions: (Based on FERC Limits)

1b S/hr = (gr S/100 scf)(MMscf/hr)(1 lb/7000 gr)

= (10 gr S/100 scf)(0.1518 MMscf/hr)(1 lb/7000 gr)

= 2.169

lb SO2/hr = (lb S/hr)(2 lb SO2/lb S)

= (2.17 lb S/hr)(2 lb SO2/lb S)

= 4.338

tons SO2/yr = (lb SO2/hr)(hr/yr)(1 ton/2000 lb)

= (4.34 lb SO2/hr)(8760 hr/yr)(1 ton/2000 lb)

= 18.999

PM 10/2.5 Emissions: (Based on AP-42 Table 3.1-2a, 4/00)

lb PM/hr = (lb PM/MMBtu)(MMBtu/hr)

= (0.0066 lb/MMBtu)(157.89 MMBtu/hr)

= 1.042

tons PM/yr = (lb PM/hr)(hr/yr)(1 ton/2000 lb)

= (1.04 lb PM/hr)(8760 hr/yr)(1 ton/2000 lb)

= 4.564

HAPs Emissions: (Based on AP-42 Table 3.1-3, 4/00)

lb HAP/hr = (lb HAP/MMBtu)(MMBtu/hr)

≈ (0.00102700 lb/MMBtu)(157.890 MMBtu/hr)

≈ 0.162

tons $HAP/yr \approx (lb HAP/hr)(hr/yr)(1 ton/2000 lb)$

= (0.162 lb HAP/hr)(8760 hr/yr)(1 ton/2000 lb)

= 0.710

Emergency Gen. Nos. 3 & 4 EPNs:

Controlled CO tpy =

0.0145

NOx Emissions: (Based on Vendor Data) SO2 Emissions: (Based on FERC Limits) 1b NOx/hr = (g/bhp-hr)(bhp)(1 lb/453.59 g)(gr S/100 scf)(MMscf/hr)(1 lb/7000 gr) (10 gr S/100 scf)(0.0041 MMscf/hr)(1 lb/7000 (2.12 g/bhp-hr)(454 bhp)(1 lb/453.59 g) gr) 0.059 2.122 = Control Effic. = 5.7% Controlled NOx lb/hr = 2.00 lb SO2/hr = (lb S/hr)(2 lb SO2/lb S) (0.06 lb S/hr)(2 lb SO2/lb S) tons NOx/yr = (lb NOx/hr)(hr/yr)(1 ton/2000 lb) 0.117 (2.12 lb NOx/hr)(100 hr/yr)(1 ton/2000 Ξ (b) 0.1061 5.7% tons SO2/yr = (lb SO2/hr)(hr/yr)(1 ton/2000 lb) Control Effic. = (0.117 lb SO2/hr)(100 hr/yr)(1 ton/2000 lb) Controlled NOx tpy = 0.10 0.006 CO Emissions: (Based on Vendor Data) lb CO/hr = (g/bhp-hr)(bhp)(1 lb/453.59 g) (118.3 g/bhp-hr)(454 bhp)(1 lb/453.59 g) PM Emissions: (Based on AP-42 Table 3.2-3, 7/00) 118.404 lb PM/hr = (lb PM/MMBtu)(MMBtu/hr) Control Effic. = 96.6% (0.01941 MMBtu/hr)(4.26 MMBtu/hr) Controlled CO lb/hr = 4.03 0.083 (lb CO/hr)(hr/yr)(1 ton/2000 lb) tons CO/yr = (118.40 lb CO/hr)(100 hr/yr)(1 ton/2000 lb) tons PM/yr = (lb PM/hr)(hr/yr)(1 ton/2000 lb) 5.92 (0.083 lb PM/hr)(100 hr/yr)(1 ton/2000 lb) Control Effic. = 96.6% 0.0041 0.20 Controlled CO tpy = VOC Emissions: (Based on Vendor Data) HAPs Emissions: (Based on AP-42 Table 3.2-3, 7/00) lb HAP/hr = (lb HAP/MMBtu)(MMBtu/hr) lb VOC/hr = (g/bhp-hr)(bhp)(1 lb/453.59 g) (0.29 g/bhp-hr)(454 bhp)(1 lb/453.59 g) (0.0234 lb/MMBtu)(4.26 MMBtu/hr) 0.0997 0.290 Control Effic. = 0% Controlled VOC lb/hr = 0.290 tons HAP/yr = (lb HAP/hr)(hr/yr)(1 ton/2000 lb) tons VOC/yr = (lb VOC/hr)(hr/yr)(1 ton/2000 lb) (0.10 lb HAP/hr)(100 hr/yr)(1 ton/2000 lb) (0.29 lb VOC/hr)(100 hr/yr)(1 ton/2000 0.005 lb) 0.0145 = Control Effic. = 0%

TANKS 4.0.9d

Emissions Report - Summary Format Tank Indentification and Physical Characteristics

Identification

User Identification: FGT CS 26 Oily Water

City: Lecanto State: Florida

Company: Florida Gas Transmission
Type of Tank: Vertical Fixed Roof Tank

Description:

Tank Dimensions

 Shell Height (ft):
 6.00

 Diameter (ft):
 4.00

 Liquid Height (ft):
 6.00

 Avg. Liquid Height (ft):
 3.00

 Volume (gallons):
 564.02

 Turnovers:
 0.89

 Net Throughput(gal/yr):
 500.00

Is Tank Heated (y/n): N

Paint Characteristics

Shell Color/Shade: White/White Shell Condition Good Roof Color/Shade: White/White Roof Condition: Good

Roof Characteristics

Type: Cone

Height (ft) 0.00
Slope (ft/ft) (Cone Roof) 0.06
Breather Vent Settings

Vacuum Settings (psig): -0.03
Pressure Settings (psig) 0.03

Meterological Data used in Emissions Calculations: Gainesville, Florida (Avg Atmospheric Pressure = 14.75 psia)

TANKS 4.0.9d

Emissions Report - Summary Format Liquid Contents of Storage Tank

FGT CS 26 Oily Water - Vertical Fixed Roof Tank Lecanto, Florida

														
					Liquid									
		Da	ily Liquid S	iurf.	Bulk				Vapor	Liquid	Vapor			
		Tem	perature (d	eg F)	Temp	Vap	or Pressure	(psia)	Mol.	Mass	Mass	Mol.	Basis for Vapor Pressure	
Mixture/Component	Month	Avg.	Min.	Max.	(deg F)	Avg.	Min.	Max.	Weight.	Fract.	Fract.	Weight	Calculations	

Lube Oil All 70.52 64.81 76.23 68.60 0.0001 0.0000 0.0001 190.0000 190.00 Option 1: VP70 = .00006 VP80 = .00009

TANKS 4.0.9d Emissions Report - Summary Format Individual Tank Emission Totals

Emissions Report for: Annual

FGT CS 26 Oily Water - Vertical Fixed Roof Tank Lecanto, Florida

	1		Losses(lbs)	
Components		Working Loss	Breathing Loss	Total Emissions
Lube Oil		0.00	0.00	0.00

TANKS 4.0.9d

Emissions Report - Summary Format Tank Indentification and Physical Characteristics

1 -1		4 t
IGAN	tifica	TIAN
100	LIFICA	

User Identification: FGT CS 26 Condensate

City: Lecanto State: Florida

Company: Florida Gas Transmission
Type of Tank: Vertical Fixed Roof Tank

Description:

Tank Dimensions

 Shell Height (ft):
 12.00

 Diameter (ft):
 8.00

 Liquid Height (ft):
 12.00

 Avg. Liquid Height (ft):
 6.00

 Volume (gallons):
 4,512.16

 Turnovers:
 0.11

Net Throughput(gal/yr): 500.00

Is Tank Heated (y/n): N

Paint Characteristics

Shell Color/Shade: White/White
Shell Condition Good
Roof Color/Shade: White/White
Roof Condition: Good

Roof Characteristics

Type: Cone

Height (ft) 0.00
Slope (ft/ft) (Cone Roof) 0.06
Breather Vent Settings

Vacuum Settings (psig): -0.03
Pressure Settings (psig) 0.03

Meterological Data used in Emissions Calculations: Gainesville, Florida (Avg Atmospheric Pressure = 14.75 psia)

TANKS 4.0.9d Emissions Report - Summary Format Liquid Contents of Storage Tank

FGT CS 26 Condensate - Vertical Fixed Roof Tank Lecanto, Florida

			ily Liquid S perature (di		Liquid Bulk Temp	Vapo	or Pressure	(psia)	Vapor Mol.	Liquid Mass	Vapor Mass	Mol.	Basis for Vapor Pressure
Mixture/Component	Month	Avg.	Min.	Max.	(deg F)	Avg.	Min.	Мах.	Weight.	Fract.	Fract.	Weight	Calculations
Pipeline Condensate	All	70.52	64.81	76.23	68.60	0.6513	0.5658	0.7473	53.0000			53.00	Option 4: RVP=1.4

TANKS 4.0.9d Emissions Report - Summary Format Individual Tank Emission Totals

Emissions Report for: Annual

FGT CS 26 Condensate - Vertical Fixed Roof Tank Lecanto, Florida

			Losses(lbs)	
Components	1	Working Loss	Breathing Loss	Total Emissions
Pipeline Condensate		0.31	28.92	29.23

Attachment G

Fuel Analysis

BEST AVAILABLE COPY

FTWSCB1.ener			East Sys	tem Chro	matograph	01-Aug-2008 14:05:09			
	Station 15 apr	Storen 16.	Station (4)	Station 12	Jacksonville Tat	Gansyle 1910	brandy Branch	Station 21	
n-Hexanes +	0.0698	0.0706	0.0627	0.0199	0.0058	0.0638	0.0013	0.0453	
Nitrogen	0.5661	0.5581	0.5374	0.4067	0.0616	0.5267	0.0184	0.4515	
Methane	95.5536	95.5834	95.5528	95.9043	96.5431	95.6856	96.6087	95.6529	
Carbon Dioxide	0.9859	0.9896	0.9931	0.7936	0.1266	1.0224	0.0153	0.7481	
Ethane	2.2210	2.2010	2.2452	2.3074	2.6850	2.1642	2.7702	2.4459	
Propane	0.3579	0.3530	0.3637	0.3569	0.4396	0.3325	0.4590	0.4177	
Iso-Butane	0.0806	0.0796	0.0814	0.0710	0.0704	0.0728	0.0702	0.0854	
n-Butane	0.0944	0.0933	0.0947	0.0716	0.0563	0.0757	0.0515	0.0923	
Iso-Pentane	0.0406	0.0411	0.0395	0.0270	0.0076	0.0333	0.0039	0.0356	
n-Pentane	0.0301	0.0304	0.0295	0.0187	0.0038	0.0229	0.0016	0.0253	
Un-normalized Totals	100.03		99.91	99.78	100.08	٠,	99.85	99.40	
Specific Gravity	0.5869	0.5873	0.5868	0.5831	0.5759		0.5750	0.5850	
BTU / cu ft.	1030.2		1030.4	1031.8	1043.2		1045.2	1035.1	
	CR15		BRO1	CR18	CRJX	GLAB	CRBB	CR21	
Dew Point ar	Recall	Wes	st Chromatog	raphs	Eas	East On Line Chromatographs			

Attachment H List of Exempt Emissions Units

List of Exempt Emissions Units

- 1. 500 gallon Oily Water Storage Tank, vertical, 4' x 6'
- 2. 100 barrel Condensate Storage Tank, vertical, 8' x 12'
- 3. Fugitive emissions from component leaks

LIST FOR NEW APPLICATIONS

Application Facility/Site Name: Florida Gas Transmission Company - Compressor Station No. 29

U	Find out which section/Processor: Susan DeVore
	EPSAP Application: Application Number/Version:
	Box already selected to display on APDS
	Received Date: 11/26/08
	☐ Special Instructions:
	DCD 51 AL/A
	PSD-FL- N/A
	Log Project: Project Number:
	0550060-001-AC
P	Have project scanned (return to: (Sylvia) / Barbara / Elizabeth)
	☐ Document Date: <u>11 / 26 / 2008</u>
	☐ Document Type:
	Application
	Correspondence
	Notes for Scanning Staff:
	155 pgs Scanned: DFC 18 2000
	155 pgs Scanned: DEC 18 2008
	Already Scanned (look for it in APDS under air permit/project number)
	, , , , , , , , , , , , , , , , , , ,
d	Make Folder
	Send Notification e-mail
	☐ EPA (Katy gets all EPA emailed notifications)
	☐ Impact Area:
	□ NPS
	☐ FWS
	District/Local (look in ARMS for Facility Office)
	District/Local (look in Akivis for Facility Office)
1	
Y	Final Document Destination – File Sylvia Barbara Elizabeth

0550060-001 N/A

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Florida Gas Transmission Company

A Southern Union/El Paso Affiliate

5444 Westheimer Road Houston, TX 77056-5306

P.O. Box 4967 Houston, TX 77210-4967 713.989.7000

November 26, 2008

UPS Overnight -CERTIFIED MAIL - RETURN RECEIPT

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BUREAU OF AIR REGULATION

Ms. Trina Vielhauer, Chief Bureau of Air Regulation Florida Department of Environmental Protection 2600 Blairstone, MS 5500 Tallahassee, FL 32399-2400 Phone: 850-921-9504

Reference:

New Facility 0550060

Compressor Station No. 29, Highlands County

Dear Ms. Vielhauer

Application for Air Construction Permit Subject:

Florida Gas Transmission Company (FGT) is proposing to construct a new natural gas pipeline compressor station to be located in Highlands County near Okeechobee. The facility will be identified as Compressor Station No. 29 and will consist of two new 7,800 hp natural gas fired compressor turbines, two 454 natural gas fired emergency generators and supporting equipment.

After construction, the facility will be a minor source under both New Source Review and Title V definitions; therefore, a state only construction permit is required.

Enclosed is an Application with supporting documentation for an Air Construction Permit for the proposed new facility. A processing fee of \$2250.00 is attached.

If you have any questions or need additional information, please call me at (713) 989-7459.

Sincerely,

Charles Wait

Principal Engineer

CC: Arnold L. Eisenstein
Frank Diemont
Kevin McGlynn, P.E.
Duane Pierce, AQMcs, LLC
Compressor Station No. 29

Application for Air Permit to Construct

Florida Gas Transmission Company, LLC Phase VIII Expansion Project Okeechobee Compressor Station No. 29 Okeechobee, Highlands County, Florida New Facility

November 2008

AQMcs

Table of Contents

1.0	1	INTR	ODUCTION	1
2.0		PRO.	JECT DESCRIPTION	3
	2.		Proposed New Sources	3
		1.1	New Compressor Turbines	
		2.2	New Emergency Generators	
		2.3	Support Equipment	
			New Storage Tanks	
		2.5	Fugitive Emissions	
	2.2	2	Emissions Summary	.10
3.0	ı	REGI	ULATORY ANALYSIS	.12
	3.2	2	Federal Regulations Review	.12
	3.1	1.1	Classification of Ambient Air quality	. 12
	3.1	1.2	PSD Applicability	.13
	3.1		Non-attainment New Source Review (NNSR) Applicability	
	3.1	1.4	Applicability of New source Performance Standards (NSPS)	. 15
	3.1		Applicability of National Emission Standards for Hazardous Air Pollutants (NESHAPS)	.17
	3.1		Applicability of Title V	
	3.2	2	Florida State Air Quality Regulations	.18
	3.2		Rule 62-210.300 Permits Required	
	3.2		Rule 62-204.240 Ambient Air Quality Standards	
	3.2	2.3	Rule 62-296.320(2) Objectionable Odors	.18
	3.2	2.4	Rule 62-296.320(4)(b)1 General Particulate Emission Limiting Standards	.18
4.0	ı	REFE	RENCES	.19
Atta	ach	men	t A DEP Forms	
Att	ach	men		
Atta	ach	men	t C Precautions to Prevent Emissions of Unconfined Particulate Matte	r
Att	ach	men	t D Plot Plan	
Atta	ach	men	t E Vendor Information	
Atta	ach	men	t F Calculations	
Atta	ach	men	t G Fuel Analysis	
Atta	ach	men	t H Exempt Sources List	

AQMcs, LLC Page i

AQMcs

List of Tables

Table 2-1 Proposed New Turbine (2901 and 2902) Specifications and Stack Para	
Table 2-2 Proposed New Turbine (2901/2902) Compressor Engine Emissions	
Table 2-3 Proposed Emergency Generator Engines Specifications and Stack Para	ameters7
Table 2-4 Emissions from Each Proposed Generator Engine	8
Table 2-5 New Storage Tanks for Compressor Station No. 29	9
Table 2-6 VOC Fugitive Emission Calculations and Summary	
Table 2-7 Potential Annual Emissions (tpy) Summary	
Table 3-1 National and State Ambient Air Quality Standards (μg/m³)	
Table 3-2 Applicability of PSD Significant Emission Rates	
Table 3-3 Applicability of New Source Performance Standards Subpart KKKK	
Table 3-4 Applicability of New Source Performance Standards Subpart JJJJ	
,, ,	
List of Figures	
Figure 1-1 Location Map	2

AQMcs, LLC Page ii

1.0 INTRODUCTION

Florida Gas Transmission Company (FGT) is proposing to construct a new natural gas pipeline facility near Okeechobee, in Highlands County, Florida (Compressor Station No. 29). This proposed modification is part of FGT's Phase VIII Expansion Project, aimed at increasing the supply capacity of FGT's network servicing domestic suppliers, commercial, and industrial customers in Florida. The scope of work for the Phase VIII Expansion Project includes expansion through the addition of state-of-the-art compressor engines at nine existing compressor stations within the States of Florida and Alabama. Three compressor stations within Florida will receive electric driven turbine compressors and five compressor stations within Florida will receive natural gas-fired turbine compressors.

The new Compressor Station No. 29 will be located approximately 13 miles west of U.S. Highway 441 on State Highway 70. Figure 1-1 shows the location of the existing compressor station.

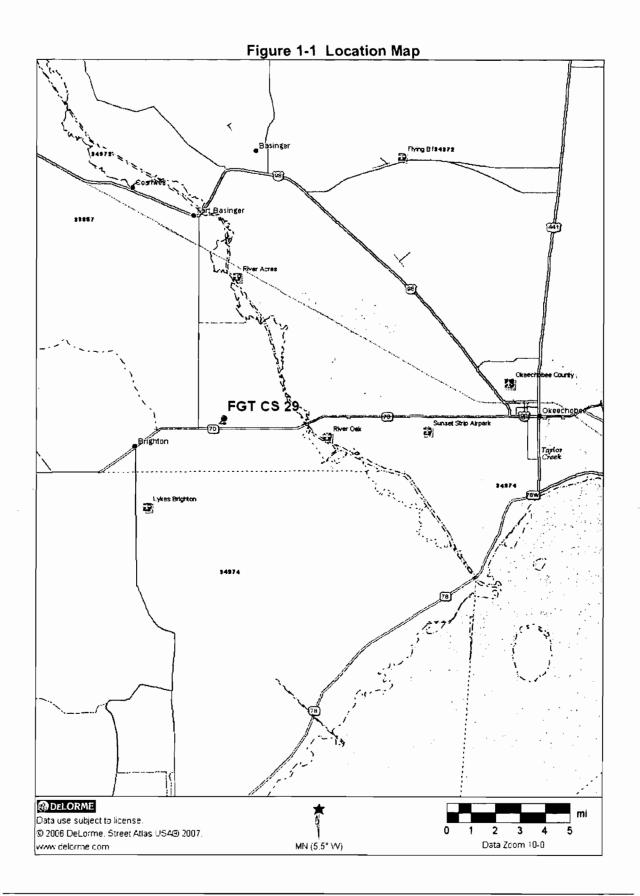
The proposed new facility will consist of two new 7,800 hp natural gas fired compressor turbines, two 454 natural gas fired emergency generators and supporting equipment. The turbines will be Solar Taurus 60-7800S units and will be used solely for transporting natural gas by pipeline for distribution to markets in Florida.

Additionally, FGT is also proposing to install two emergency generators at this facility. Each of the two new generators will be powered by a 454 bhp, gas-fired reciprocating compressor engine which will meet the new 40 CFR Subpart JJJJ standards.

Based on projected new annual emission rates, the proposed facility would have NO_X potential emissions of 53.2 tpy and CO potential emissions of 64.8 tpy; therefore, this new facility will not constitute a major new source under Prevention of Significant Deterioration (PSD) regulations. A state only construction permit is required.

This narrative contains three additional sections. Descriptions of the proposed engines and emergency generators are presented in Section 2.0. The air quality review requirements and applicability of state and federal regulations are discussed in Section 3.0. References are included in Section 4.0. FDEP permit application forms are provided in Attachment A. Attachment B contains a process flow diagram, Attachment C contains Precautions to Prevent Emissions of Unconfined Particulate Matter, Attachment D contains a plot plan of the facility and Attachment E provides vendor information a description of the sampling platform. Attachment F provides emission calculations; Attachment G has a fuel analysis and Attachment H a list of exempt sources.

AQMcs, LLC Page 1



2.0 PROJECT DESCRIPTION

A plot plan of FGT's Compressor Station No. 29, showing the location of the plant boundaries, and the location of the new turbines and generators is presented in Attachment D. The following sections provide a description of the existing operations at this location, as well as a description of the proposed project.

2.1 Proposed New Sources

FGT proposes to install two new gas-fired turbines (Compressor Engines 2901 and 2902). The new engines will be used to increase the volumetric delivery capacity by driving a gas compressor that is a part of a gas transmission line that transports natural gas from source wells in Texas and Louisiana for delivery throughout Florida. Without the proposed modifications, it would not be possible to increase the volumetric delivery capacity necessary to meet both short and long-term demands for natural gas in Florida.

In addition, as part of the project, two new emergency generators will be installed. Each will be powered by a 454 bhp, gas-fired, 4-stroke, rich burn reciprocating compressor engine equipped with emissions that will be controlled to meet the new 40 CFR Subpart JJJJ standards as required. Details of the changes are described in the following sections.

2.1.1 New Compressor Turbines

The new turbine compressor engines are Solar Titan 60 -78200S turbine compressor units rated at 7,800 bhp (ISO). Fuel will be exclusively natural gas from FGT's natural gas pipeline. Engine specifications and stack parameters for the proposed engine are presented in Table 2-1.

AOMcs, LLC Page 3

Table 2-1 Proposed New Turbine (2901 and 2902) Specifications and Stack Parameters

Parameter	Design
Compressor Engine	2901/2902
Туре	Gas Turbine
Manufacturer	Solar
Model	Taurus 60 - 7800S
Net Output (ISO with inlet and	7,277 bhp
exhaust losses of 4.0 inches	
H2O)	
Specific Heat Input (LHV) ^a	8,326 Btu/hp-hr
Specific Heat Input (HHV) ^b	9,220 Btu/hp-hr
Fuel Flow (LHV) ^a	60.59 MM Btu/hr
Fuel Flow (HHV) ^a	67.09 MM Btu/hr
Maximum Fuel Consumption ^c	0.0645 MMscf/hr
Driven Equipment Speed	13,854 rpm
Stack Parameters	
Stack Height	55 ft
Stack Diameter	6 ft
Exhaust Gas Flow	170,003 lb/h
	101,546 acfm
Exhaust Temperature	956 °F
Exhaust Gas Velocity	59.9 ft/sec

NOTE:

acfm = actual cubic feet per minute.

bhp = brake horsepower.

Btu/hp-hr = British thermal units per brake horsepower per hour.

°F = degrees Fahrenheit.

ft = feet.

ft/sec = feet per second.

MMscf/hr = million standard cubic feet per hour.

rpm = revolutions per minute.

Hourly and annual emissions of regulated pollutants from the proposed new turbines at ISO conditions with inlet and exhaust losses are presented in Table 2-2. Emissions of oxides of nitrogen (NO_X), carbon monoxide (CO) and non-methane hydrocarbons (NMHC) or volatile organic compounds (VOC) are based on the engine manufacturer's supplied data (See Attachment C). These values are based on ISO conditions. Other factors such as ambient temperature can affect these rates.

^a Based on vendor provided lower heat rate value (LVH) of 8,326 Btu/hp-hr, a lower heating value of 939.2 Btu/scf and

^b Based on natural gas with a HHV of 1040 British thermal units per standard cubic foot (Btu/scf).

c While producing 7,227 bhp and with gas having HHV of 1040 Btu/scf

Typically, turbine vendors do not provide information on particulate matter (PM), sulfur dioxide (SO2) or hazardous air pollutant (HAP) emissions; therefore, PM and HAP emissions are based upon USEPA publication AP-42 Section 3.1 (USEPA, 2000). Emissions of SO₂ are based on FGT's Federal Energy Regulatory Commission (FERC) certificate limit of 10 grains sulfur per 100 cubic feet of natural gas.

Table 2-2 Proposed New Turbine (2901/2902) Compressor Engine Emissions

Pollutant	Emission Factor	Reference	lb/hr	TPY
Nitrogen Oxides ^a	6.04 lb/hr	6.04 lb/hr Manufacturer Data		26.46
Carbon Monoxide ^a	7.35 lb/hr	Manufacturer Data	7.35	32.19
Volatile Organic ^{a,b} Compounds	0.21 lb/hr	Manufacturer Data	0.21	0.92
Particulate Matter ^c	0.0066 lb/MMBtu	AP-42, Table 3.1-2a	0.44	1.94
Sulfur Dioxide ^c	10 grains/100 scf FERC Limit		1.84	8.07
HAPS °	0.001027 lb/MMBtu	AP-42, Table 3.1-2a	0.07	0.30

^a Emissions based on vendor provided values at ISO conditions and inlet and exhaust losses at 4" of H₂O.

^b Assumes that VOCs are 10% of THC

^c Emissions based on vendor provided heat rate at higher heating value.

2.2.2 New emergency Generators

The new generators will be powered by natural gas fueled, rich burn Generac Model SG300 rated at 300 kW (454 bhp). Engine specifications and stack parameters for the proposed engines are presented in Table 2-3 and emissions are presented in Table 2-4.

2.2.3 Support Equipment

In addition to the compressor engine, some support equipment and structures will be installed at the site. They include:

- Two compressor buildings
- An auxiliary building
- A control building

The locations of the structures are shown on the facility plot plan contained in Attachment D. The compressor buildings, each housing a new turbine, have approximate dimensions of 52 feet wide by 64 feet long by 26 feet high. The approximate dimensions of the auxiliary building will be 32 feet wide by 96 feet long by 14 feet high and the approximate dimensions of the control building will be 14 feet wide by 55 feet long by 12 feet high.

2.2.4 New Storage Tanks

Two new storage tanks will be installed at Compressor Station No. 29. The tanks are a 500 gallon oily water storage tank and a 100 barrel condensate storage tank. Specifications for these tanks are listed in Table 2-5. Emissions were calculated with the U.S EPA's (USEPA) Tank 4.0 D program. Details of the calculations can be found in Attachment F. This emission unit is exempt under Rule 62-210.300(3)(b), F.A.C. These emission units are exempt under Rule 62-210.300(3)(b), F.A.C.

2.2.5 Fugitive Emissions

Potential new emissions from Compressor Station No. 29 also include fugitive emissions from the new valves and flanges that will be in gas service. These fugitive emissions have been estimated using USEPA factors for components in gas service at oil and gas facilities (EPA publication EPA-453/R-95-017, November 1995, "Protocol for Equipment Leak Emission Estimates"). Table 2-6 lists the quantities new components to be added as part of the Phase VIII Expansion Project and an estimate of the fugitive emissions from these sources.

Table 2-3 Proposed Emergency Generator Engines Specifications and Stack Parameters

	Parameter	Design
Compressor	Engine	Gen01/Gen02
Туре	_	Natural Gas, Rich Burn Reciprocating
Manu	facturer	Generac
Mode	·[SG300
Unit 9	Size	454 bhp
Heat	Input	4.26 MM Btu/hr
Fuel	Consumption ^a	0.00410 MMscf/h
Spee	d	2300 rpm
Stack Param	eters	
Stack	. Height	20 ft
Stack	Diameter	0.67 ft
Exha	ust Gas Flow	5,300 lb/hr
Exha	ust Gas Flow	2,911 acfm
Exha	ust Temperature	1490 °F
Exha	ust Gas Velocity	138.85 ft/sec
NOTE:		
acfm	= actual cubic feel per	r minute
bhp	= brake horsepower.	Timilato.
Btu/hr	= British thermal units	
°F	= degrees Fahrenheit	
ft	= feet.	
ft/sec I b/hr	= feet per second. = pound per hour	

Lb/hr

rpm scf/h

pound per hour. revolutions per minute. standard cubic feet per hour

Page 7 AQMcs, LLC

^a Based on heating value for natural gas of 1040 British thermal units per standard cubic foot (Btu/scf).

Table 2-4 Emissions from Each Proposed Generator Engine

	Uncont	rolled		Controlled			
Pollutant	Emission Factor	lb/hr ^a	TPY a.b	Emission Factor	lb/hr*	TPY a, b	Reference
Nitrogen Oxides	2.12 g/hp-hr	2.12	0.11	2.0 g/hp-hr	2.00	0.109	NSPS
Carbon Monoxide	118.3 g/hp-hr	118.41	5.92	4.0 g/hp-hr	4.03	0.20	NSPS
Volatile Organic Compounds**	0.29 g/hp-hr	0.29	0.01	0.29 g/hp-hr	0.29	0.01	NSPS
Particulate Matter	0.01941 lb/MMBtu	0.083	<0.01	0.01941 lb/MMBtu	0.083	<0.01	AP-42, Table 3.2-3
Sulfur Dioxide	10 grains/100 scf	0.117	0.01	10 grains/100 scf	0.117	0.01	FERC Limit
Hazardous Air Pollutants	0.0234 lb/MMBtu	0.10	0.01	0.0234 lb/MMBtu	0.10	0.01	AP-42, Table 3.2-3

<sup>a. The manufacturer has not finalized design at this time. Actual values may be lower.
b. Based on 454 bhp, 100 hours of operation per year
c. assumed VOC 10% of UHC/THC</sup>

Table 2-5 New Storage Tanks for Compressor Station No. 29

Tank Name	Condensate Tank	Oily Water Tank
Type of Tank	Vertical, Cone Roof	Vertical, Cone Roof
Contents	Hydrocarbon Liquids	Drain water from washings; oily water
Dimensions	8' dia x 12' high	4' dia x 6' high
Capacity	100 Barrels	500 Gallons
Paint Color	White	White
Maximum Annual Throughput	50 Gallons	100 Barrel
Pressurized	No	No
VOC Emissions (tpy)	0.01	<0.001

Table 2-6 VOC Fugitive Emission Calculations and Summary

Component	Service	Component	Emissions *	NM/NE	Emissions
		Count	Factor (ton/yr)	Fraction	(ton/yr)
Valves	Gas	86	0.0434606	0.05	0.1869
Connector	Gas	0	0.0019316	0.05	0.0000
Flanges	Gas	204	0.0037666	0.05	0.0384
Open-Ended Line	Gas	0	0.0193158	0.05	0.0000
Pumps	Gas	0	0.023179	0.05	0.0000
Other	Gas	0	0.0849895	0.05	0.0000
Valves	Light Oil	0	0.0241448	1.00	0.0000
Connector	Light Oil	0	0.0020282	1.00	0.0000
Flanges	Light Oil	0	0.0010624	1.00	0.0000
Open-Ended Line	Light Oil	0	0.0135211	1.00	0.0000
Pumps	Light Oil	0	0.1255527	1.00	0.0000
Other	Light Oil	0	0.0724343	1.00	0.0000
Valves	Heavy Oil	0	0.0000811	1.00	0.0000
Connector	Heavy Oil	0	0.0000724	1.00	0.0000
Flanges	Heavy Oil	0	0.0000038	1.00	0.0000
Open-Ended Line	Heavy Oil	0	0.0013521	1.00	0.0000
Other	Heavy Oil	0	0.0002994	1.00	0.0000
				TOTAL:	0.2253

^{*&#}x27;EPA publication EPA-453/R-95-017, November 1995, "Protocol for Equipment Leak Emission Estimates

2.2 Emissions Summary

The total changes in emissions resulting from the project are listed on Table 2-7. The calculations used to estimate these emissions are presented in Attachment D.

Table 2-7 Potential Annual Emissions (tpy) Summary

SOURCE DESCRIPTION		NO _x	со	VOC a	SO ₂	РМ	HAPs
EXISTING FACILITY							
	None	0.0	0.0	0.0	0.0	0.0	0.0
EXISTING	ANNUAL POTENTIALTOTALS:	0.0	0.0	0.0	0.0	0.0	0.0

	PROPOSED MODIFIED FACILITY									
2901	7,800 bhp Turbine Engine- New	26.5	32.2	0.9	8.1	1.9	0.3			
2903	7,800 bhp Turbine Engine – New	26.5	32.2	0.9	8.1	1.9	0.3			
GEN01	454 bhp Recip. Engine – New ^b	0.1	0.2	0.0	0.0	0.0	0.0			
GEN02 454 bhp Recip. Engine – New b		0.1	0.2	0.0	0.0	0.0	0.0			
	Other Sources: c	0.0	0.0	0.2	0.0	0.0	0.0			
Р	ROPOSED ANNUAL POTENTIAL TOTALS:	53.2	64.8	2	16.2	3.8	0.6			

NET CHANGES IN POTENTIAL EMISSIONS:	53.2	64.8	2	16.2	3.8	0.6
-------------------------------------	------	------	---	------	-----	-----

⁽a) VOC = Non-methane/non-ethane hydrocarbons

⁽b) Based on 100 hrs/yr

⁽c) Other Sources Includes ancillary equipment, storage tanks and equipment leaks

3.0 REGULATORY ANALYSIS

This section presents a review of federal and Florida State air quality regulations, which govern the operations and proposed modifications to be conducted at Compressor Station No. 29.

3.2 Federal Regulations Review

The federal regulatory programs administered by the USEPA have been developed under the authority of the Clean Air Act. The following subsections review the essential elements of the federal regulatory program and the impact they have on the operations and proposed modifications at Compressor Station No. 29.

3.1.1 Classification of Ambient Air quality

The 1970 Amendments to the CAA gave the USEPA specific authority to establish the minimum level of air quality that all states would be required to achieve. These minimum values or standards were developed in order to protect the public health (primary) and welfare (secondary). The federally promulgated standards and additional state standards are presented on Table 3-1.

Areas of the country that have air quality equal to or better than these standards (i.e., ambient concentrations less than a standard) are designated as "Attainment Areas", while those where monitoring indicates air quality is worse than the standards are known as "Non-attainment Areas." The designation of an area has particular importance for a proposed project as it determines the type of permit review to which the application will be subject.

Major new sources or major modifications to existing major sources located in attainment areas are required to obtain a PSD permit before initiation of construction. Similar sources located in areas designated as non-attainment or that adversely impact such areas undergo more stringent Non-attainment New Source Review (NNSR). In either case, it is necessary, as a first step, to determine the air quality classification of a project site.

All areas of all states are classified as either attainment, non-attainment or unclassifiable for each criteria pollutant. Highlands County in designated as unclassifiable or attainment for all criteria pollutants. These designations were obtained from 40 CFR 81.310, and 62-204.340 F.A.C.

Table 3-1 National and State Ambient Air Quality Standards (μg/m³)

POLLUTANT	AVERAGING PERIOD		ANDARDS SECONDARY	FLORIDA STANDARDS
PM ₁₀	24-hour ¹	150	150	150
	Annual ²	50	50	50
SO ₂	3-hour ¹	~	1,300	1,300
	24-hour ¹	365		260
	Annual ²	80	~	60
CO	1-hour ¹		40,000	40,000
	8-hour ¹	10,000		10,000
NO ₂	Annual ²	100	100	100
O ₃	1-hour ³	235	235	235

- 1. Not to be exceeded more than once per year.
- 2. Never to be exceeded.
- 3. Not to be exceeded on more than 3 days over 3 years.

Sources: 40 CFR 50; 36FR22384; Chap. 17-2.300.

The designation of Unclassifiable indicates that there is insufficient monitoring data to prove that the area has attained the federal standards; however, the limited data available indicate that the standard has been achieved. Areas with this classification are treated as attainment areas for permitting purposes. Since Highlands County is considered in attainment for all pollutants, the proposed new emissions are potentially subject to PSD review and not non-attainment review.

3.1.2 PSD Applicability

The 1977 CAA Amendments added Part C: Prevention of Significant Deterioration to the Act. This part required proposed new major stationary sources or existing sources planning a major modification in an area that has attained the National AAQS, to conduct a preconstruction review that includes a detailed analysis of the impacts from the source's emissions.

Federal air quality permitting regulations for attainment areas are codified in the Code of Federal Regulations (CFR), Title 40- Protection of the Environment, Part 52.21 - Prevention of Significant Deterioration (40 CFR 52.21). Major revisions to the rules were finalized on December 31, 2002, and became effective on March 3, 2003. State of Florida requirements are located at 62-212.400 F.A.C.

For the PSD regulations to apply to a given project, the project's potential to emit must constitute a new major stationary source or a major modification to an existing major stationary source. A major stationary source is defined as any of the 28 sources identified in 40 CFR 52.21 that has a potential to emit 100 tons or more per year of any regulated pollutant, or any other stationary source that has the potential to emit 250 tons or more per year of a regulated pollutant. "Potential to emit" is determined on an annual basis after the application of air pollution control equipment, or any other federally enforceable restriction.

"Significant" emission rates are defined as amounts equal to or greater than the emission rates given in Table 3-2.

Table 3-2 Applicability of PSD Significant Emission Rates

Pollutant	Emission Rate Tons/Year					
Carbon Monoxide	100					
Nitrogen Oxides	40					
Sulfur Dioxide	40					
Particulate Matter (PM/PM ₁₀)	25/15					
Ozone (VOC)	40					
Lead	0.6					
Fluorides	3					
Reduced Sulfur including Hydrogen Sulfide	10					
Total Reduced Sulfur including Hydrogen Sulfide	10					
Sulfuric Acid Mist	7					
Lead	0.6					
Mercury	0.1					
VOC = Volatile Organic Compounds Sources:40 CFR 52.21(b)(23); Table 212.400-2 62-212 F.A.C.						

Proposed project increases for modified sources are determined for each pollutant and are equal to the actual emissions (average of the actual emissions over any 24 month of the ten years immediately prior to the proposed project) subtracted from the proposed future actual emissions. For new sources the emission increase is equal to the potential to emit (PTE) of the source. Fugitive emissions are only included in the potential to emit if the source is one of the 28 named source categories in 40 CFR 52.21(b)(1) or belongs to a stationary source category that is subject to an NSPS proposed prior to August 7, 1980 or that is subject to an NESHAPS promulgated prior to August 7, 1980.

Netting is only required for each regulated pollutant for which the proposed project increases

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(decreases are not considered yet) result in a significant increase in emissions. Netting is performed by identifying both the creditable and contemporaneous increases and the reductions in emissions. The contemporaneous period is defined as the period of time from five years prior to the estimated start of construction through estimated start of operation. Since this project does not result in a significant increase, netting is not required.

To summarize, since Compressor Station No. 29 is not one of the 28 named source categories, and the proposed new emissions are not major in themselves, it is not considered a major source or major new source; therefore, the compressor station is not subject to PSD preconstruction review.

3.1.3 Non-attainment New Source Review (NNSR) Applicability

Based on the current non-attainment provisions, all new major stationary sources, or major modifications to such sources, located in a non-attainment area must undergo non-attainment New Source Review, if they have the potential to emit above an NSR significant threshold. For major new sources or major modifications in an attainment or unclassifiable area, the non-attainment provisions apply if the source or modification is located within the area of influence of a non-attainment area. The area of influence is defined as an area, which is outside the boundary of a non-attainment area, but within the locus of all points that are 50 kilometers outside the non-attainment area.

Compressor Station No. 29 is located in an area that is designated as either attainment or not classifiable for all criteria pollutants and is not located in an area of influence outside a non-attainment area. Additionally, Compressor Station No. 29 is not a major source; therefore, this compressor station is not subject to federal non-attainment New Source Review.

3.1.4 Applicability of New source Performance Standards (NSPS)

Standards of Performance for New Sources are published in 40 CFR 60. All Standards apply to all new sources within a given category, regardless of geographic location or ambient air quality at the location.

40 CFR 60 Subpart KKKK

The new turbine to be installed at Compressor Station No. 29 is subject to Subpart KKKK (40 CFR 60.4300), Standards of Performance for Stationary Combustion Turbines, because it will have a maximum heat input at peak load of >10.7 gigajoules/hour (10 MMBtu/hr) based on the higher heating value of the natural gas fuel and because construction will commence after 18

February 2005. This regulation establishes emission limits for NO_X and SO₂ and requires performance testing and monitoring of fuel sulfur.

The NO_x emission limit for Subpart KKKK is based on Table 1 of 40 CFR 60 Subpart KKKK. The limit for new turbines firing natural gas and with a heat input at peak load greater than 50 MMBtu/h but not more than 850 MMBtu/h is 25 ppm at 15% O_2 . SO_2 emissions are limited to 0.060 lb SO_2 /MMBtu heat input. For this turbine the limit will be 4.03 lb/hr.

Table 3-3 summarizes the NSPS applicability for the proposed gas engines. FGT will also be required to comply with all recordkeeping and monitoring requirements of this regulation.

The turbine will meet the NSPS for NO_X of 25 ppmv (i.e., manufacturer's estimation of 25 ppmv), and for SO_2 of 4.03 lb/nr (estimated for this turbine to be 1.84 lb/hr).

40 CFR 60 Subpart JJJJ

The new emergency generator engines are subject to 40 CFR Subpart 60 Subpart JJJJ Standards of Performance for Stationary Spark Ignition Internal Combustion Engines. Owners and operators of stationary spark ignition internal combustion engines with maximum engine power greater than or equal to 100 hp must comply with the standards for NO_X, CO and VOC established in Table 1 of Subpart JJJJ. The manufacturer of the proposed generator engines has not provided final emissions data. FGT will only install units that will comply with the applicable standards. FGT will also be required to comply with all recordkeeping and monitoring requirements of this regulation.

Table 3-4 summarizes the NSPS applicability for the proposed gas-fired emergency generator engines.

Table 3-3 Applicability of New Source Performance Standards Subpart KKKK

	NSPS Regulations	Fuel	Pollutant	Heat Input Applicability	Equipment Design Maximum	NSPS Emission Limits	Equipment Emissions
-	60.4320(a)	Gas	NO _x	>50 MM Btu/hr	67 MM Btu/hr	25 ppm _v	25 ppm _v
[60.4330(a)(2)	Gas	SO ₂	>50 MM Btu/hr	67 MM Btu/hr	4.03 lb/hr	1.84 lb/hr

Table 3-4 Applicability of New Source Performance Standards Subpart JJJJ

NESHAP Regulations	Fuel	Pollutant	Equipment Design Maximum	NSPS Emission Limits (g/hp-hr)	Equipment Emissions (G/hp-hr)
60.4230 Table 1	Gas	NO ₂	100 hp and higher	2.0	2.00
60.4230 Table 1	Gas	СО	100 hp and higher	4.0	4.00
60.4230 Table 1	Gas	VOC	100 hp and higher	1.0	0.29

3.1.5 Applicability of National Emission Standards for Hazardous Air Pollutants (NESHAPS)

Section 112 of the Clean Air Act required the USEPA to list categories and subcategories of major sources and area sources of hazardous air pollutants (HAP) and to establish NESHAPS for the listed source categories and subcategories. NESHAPS require all major sources to meet HAP emission standards reflecting the application of the maximum achievable control technology (MACT). Compressor Station 29 is not a major source of HAPS and is, therefore, not subject to any applicable NESHAPS.

3.1.6 Applicability of Title V

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In 1990, Congress established an operating permit program under Title V of the Clean Air Act Amendments. This operating permit program streamlines the way federal, state, tribal, and local authorities regulate air pollution by consolidating all air pollution control requirements into a single, comprehensive "operating permit" that covers all aspects of a source's year-to-year air pollution activities.

All "major" stationary sources emitting certain air pollutants are required to obtain operating permits. Generally, major sources include those stationary facilities that emit 100 tons or more per year of a regulated air pollutant. Smaller sources are considered "major" in areas that are not meeting the national air quality standards for a particular pollutant. Also, sources of toxic air pollutants (i.e., any source that emits more than 10 tons per year of an individual toxic air pollutant or more than 25 tons per year of any combination of toxic air pollutants) are considered major.

Currently CS 29 will not be a major source under Title V definitions; therefore, CS 29 will not be required to obtain a Title V operating permit.

Attachment A

DEP Forms

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3.2 Florida state air Quality Regulations

Compressor Station No. 29 is currently operating under Permit No.0041004-014-OA and is subject to the provisions of that permit. Rule 62, F.A.C., contains the air quality rules and regulations for the State of Florida. The primary federal regulations that affect Compressor Station No. 29 have been incorporated into or are referenced by these rules. The significant state regulations that are applicable to the new emission units are briefly listed below.

3.2.1 Rule 62-210.300 Permits Required

FGT is required to obtain a construction permit prior to modification of an emission unit. This requirement is being met by the submittal of this application. After the modification, FGT will be required to modify the state operating permit to incorporate the new sources.

3.2.2 Rule 62-204.240 Ambient Air Quality Standards

FGT must not violate any of the ambient air quality standards listed under this rule. The proposed new emissions will not violate any air quality standards. .

3.2.3 Rule 62-296.320(2) Objectionable Odors

This rule prohibits the discharge of pollutants that will cause or contribute to an objectionable odor. There will be no odors from the proposed changes.

3.2.4 Rule 62-296.320(4)(b)1 General Particulate Emission Limiting Standards

FGT is prohibited from allowing the new compressor engine to discharge into the atmosphere the emissions of air pollutants, the density of which is equal to or greater than that designated as Number 1 on the Ringelmann Chart (20 percent opacity). The new engines will not violate this standard.

. 10

4.0 REFERENCES

- U.S. Environmental Protection Agency (USEPA). 1980. PSD Workshop Manual. Research Triangle Park, NC.
- U.S. Environmental Protection Agency (USEPA). 1985. Protocol for Equipment Leak Emission Estimates, EPA-453/R-95-017
- U.S. Environmental Protection Agency (USEPA). 2000. Compilation of Air Pollutant Emission Factors, Volume I: Stationary Point and Area Sources (5th Ed.) AP-42. Supplement E, Research Triangle Park, NC.



Department of Environmental Protection RECEIVEL

Division of Air Resource Management APPLICATION FOR AIR PERMIT - LONG FORM

NOV 26 2008

BUREAU OF AIR REGULATION

I. APPLICATION INFORMATION

Air Construction Permit – Use this form to apply for an air construction permit:

- For any required purpose at a facility operating under a federally enforceable state air operation permit (FESOP) or Title V air operation permit;
- For a proposed project subject to prevention of significant deterioration (PSD) review, nonattainment new source review, or maximum achievable control technology (MACT);
- To assume a restriction on the potential emissions of one or more pollutants to escape a requirement such as PSD review, nonattainment new source review, MACT, or Title V; or
- To establish, revise, or renew a plantwide applicability limit (PAL).

Air Operation Permit – Use this form to apply for:

- An initial federally enforceable state air operation permit (FESOP); or
- An initial, revised, or renewal Title V air operation permit.

To ensure accuracy, please see form instructions.

100	entification of Facility					
1.	. Facility Owner/Company Name: Florida Gas Transmission Company, LLC					
2.	Site Name: Compressor Station No. 29					
3.	Facility Identification Number: unknown -	0550	060			
4.	Facility Location					
	Street Address or Other Locator: 13 miles w	vest of US 441	on SH 70			
	City: Okeechobee County: H	ighlands	Zip Code: 34974			
5.	Relocatable Facility?		Title V Permitted Facility?			
	☐ Yes ☒ No	Ye	s 🛚 No			
Ap	oplication Contact					
1.	Application Contact Name: Charles Wait					
2.	Application Contact Mailing Address					
	Organization/Firm: Florida Gas Transmissi	on Company,	LLC			
	Street Address: 5444 Westheimer					
	City: Houston Sta	ite: TX	Zip Code: 77056			
3.	Application Contact Telephone Numbers					
	Telephone: (713) 989 - 7459 ext.	Fax: (713	3) 989 - 1135			
4.	4. Application Contact E-mail Address: charles.wait@SUG.com					
Ap	Application Processing Information (DEP Use)					
1.	1. Date of Receipt of Application: \[\begin{align*} \sqrt{-08} & 3. PSD Number (if applicable): \]					

Siting Number (if applicable):

2. Project Number(s): 055006

Purpose of Application

1 ut post of Application
This application for air permit is being submitted to obtain: (Check one)
Air Construction Permit
Air construction permit.
Air construction permit to establish, revise, or renew a plantwide applicability limit (PAL).
Air construction permit to establish, revise, or renew a plantwide applicability limit (PAL), and separate air construction permit to authorize construction or modification of one or more emissions units covered by the PAL.
Air Operation Permit
Initial Title V air operation permit.
Title V air operation permit revision.
Title V air operation permit renewal.
Initial federally enforceable state air operation permit (FESOP) where professional engineer (PE) certification is required.
Initial federally enforceable state air operation permit (FESOP) where professional engineer (PE) certification is not required.
Air Construction Permit and Revised/Renewal Title V Air Operation Permit (Concurrent Processing)
Air construction permit and Title V permit revision, incorporating the proposed project.
Air construction permit and Title V permit renewal, incorporating the proposed project.
Note: By checking one of the above two boxes, you, the applicant, are requesting concurrent processing pursuant to Rule 62-213.405, F.A.C. In such case, you must also check the following box:
I hereby request that the department waive the processing time requirements of the air construction permit to accommodate the processing time frames of the Title V air operation permit.
Application Comment

Florida Gas Transmission Company is proposing to construct a new compressor station and install two new 7,800 bhp gas-fire compressor turbines and two new 454 bhp gas-fired SI ICE 4-stroke rich-burn emergency generator engines.

These proposed modifications are part of FGT's Phase VIII Expansion project, aimed at increasing the supply capacity of FGT's network servicing domestic, commercial, and industrial customers in Florida.

Scope of Application

Emissions Unit ID Number	Description of Emissions Unit	Air Permit Type	Air Permit Processing Fee
001	Turbine Compressor Engine No. 2901, 7,800 bhp ISO, Natural Gas Fired	AC1D	\$2000
002	Turbine Compressor Engine No. 2902, 7,800 bhp ISO, Natural Gas Fired	ACID	Similar Unit \$0
003	Emergency Generator Engine No. GEN05, 454 bhp, 4-stroke, rich-burn natural gas fired	ACID	\$250
003	Emergency Generator Engine No. GEN04, 454 bhp, 4-stroke, rich-burn natural gas fired	AC1D	Similar Unit \$0
			
-			

 Processing Fee Attached - Amount: \$ 2.250.00	☐ Not App	licable

Owner/Authorized Representative Statement

Complete if applying for an air construction permit or an initial FESOP.

1. Owner/Authorized Representative Name:

David Shellhouse, Vice President, Southeastern Operations

2. Owner/Authorized Representative Mailing Address

Organization/Firm: Florida Gas Transmission Company, LLC

Street Address: 2405 Lucien Way, Suite 200

City: Maitland

State: FL

Zip Code: 32751

3. Owner/Authorized Representative Telephone Numbers...

Telephone: (407)838-7122

ext. Fax: (407)838-7151

4. Owner/Authorized Representative E-mail Address: dave.shellhouse@SUG.com

5. Owner/Authorized Representative Statement:

I, the undersigned, am the owner or authorized representative of the corporation, partnership, or other legal entity submitting this air permit application. To the best of my knowledge, the statements made in this application are true, accurate and complete, and any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. I understand that a permit, if granted by the department, cannot be transferred without authorization from the department.

A-4

Signature on behalf of David Shellhouse Date

DEP Form No. 62-210.900(1) - Form

Effective: 3/16/08

Application Responsible Official Certification

Complete if applying for an initial, revised, or renewal Title V air operation permit or concurrent processing of an air construction permit and revised or renewal Title V air operation permit. If there are multiple responsible officials, the "application responsible official" need not be the "primary responsible official."

1.	Application Responsible Official Name: NA				
2.	Application Responsible Official Qualification (Check one or more of the following options, as applicable):				
	For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under Chapter 62-213, F.A.C.				
	For a partnership or sole proprietorship, a general partner or the proprietor, respectively.				
	For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official.				
	The designated representative at an Acid Rain source, CAIR source, or Hg Budget source.				
3.	Application Responsible Official Mailing Address Organization/Firm:				
	Street Address:				
	City: State: Zip Code:				
4.	Application Responsible Official Telephone Numbers Telephone: () - ext. Fax: () -				
5.	Application Responsible Official E-mail Address:				
6.	Application Responsible Official Certification:				
	I, the undersigned, am a responsible official of the Title V source addressed in this air permit application. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof and all other applicable requirements identified in this application to which the Title V source is subject. I understand that a permit, if granted by the department, cannot be transferred without authorization from the department, and I will promptly notify the department upon sale or legal transfer of the facility or any permitted emissions unit. Finally, I certify that the facility and each emissions unit are in compliance with all applicable requirements to which they are subject, except as identified in compliance plan(s) submitted with this application.				
	Signature Date				

APPLICATION INFORMATION

P	ro	fes	sio	nal	En	ginee	r Ce	rtifi	cation

oresolonal Engineer Certification
Professional Engineer Name: Kevin J. McGlynn
Registration Number: 50908
Professional Engineer Mailing Address.
Organization/Firm: Trow Engineering consultants, Inc.
Street Address: 1200 Metropolitan Blvd. Ste. 200
City: Tallahassee State: FL Zip Code: 32308
Professional Engineer Telephone Numbers.
Telephone: (850) 385 - 5441 ext. 314 Fax: (850) 385 - 5523
Professional Engineer E-mail Address: Kevin.mcglynn@trow.com
Professional Engineer Statement:
I, the undersigned, hereby certify, except as particularly noted herein*, that:
(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this application for air permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and
(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.
(3) If the purpose of this application is to obtain a Title V air operation permit (check here so), I further certify that each emissions unit described in this application for air permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance plan and schedule is submitted with this application.
(4) If the purpose of this application is to obtain an air construction permit (check here \boxtimes , if so) or concurrently process and obtain an air construction permit and a Title V air operation permit revision or renewal for one or more proposed new or modified emissions units (check here \square , if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.
(5) If the purpose of this application is to obtain an initial air operation permit or operation permit revision or renewal for one or more newly constructed or modified emissions units (check level). If further certify that, with the exception of any changes detailed as part of this application, each with emissions unit has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all production for air construction permit. Stenature Vov. (8, 2008) Date

^{*} Attach any exception to certification statement.

II. FACILITY INFORMATION A. GENERAL FACILITY INFORMATION

Facility Location	on and Type						
	A Coordinates		2. Facility Latitude/Longitude				
Zone 17	` '		Latitude (DD/MM/SS)				
	North (km) 3012.		Longitude (DD/MM/SS)				
3. Government	, ,	tatus 5.	Facility Major	6. Facility SIC(s):			
Facility Code	e: Code:		Group SIC Code: 49	4922			
7. Facility (1722			
7. Tacinty	comment.						
Compressor	Station No. 29 will b	e a new natura	al gas pipeline comp	ressor station with two			
compressor t	urbines.						
Facility Contac			-				
1. Facility Con	tact Name: : Unkno	wn at this time					
_	tact Mailing Address:						
Organization		n at this time					
Street A							
2 F : 114 - C :::	City: Okeechobee		FL Zip	Code: 34974			
	tact Telephone Numb (***) *** - ****	ers: ext. Fax:	(***) *** -	****			
-	tact E-mail Address:	*****	*****				
Facility Primary Responsible Official							
	Complete if an "application responsible official" is identified in Section I that is not the						
	y responsible officia						
1. Facility Prim	nary Responsible Office	cial Name:					
NA							
2. Facility Prim	nary Responsible Offic	cial Mailing A	.ddress				
Organization		3					
Street Ac	ldress:						
	City:	State:	Zip	Code:			
3. Facility Prim	ary Responsible Offic	cial Telephone	Numbers				
Telephone:	() -	ext. Fax:	() -				
4. Facility Prim	4. Facility Primary Responsible Official E-mail Address:						

Facility Regulatory Classifications

Check all that would apply *following* completion of all projects and implementation of all other changes proposed in this application for air permit. Refer to instructions to distinguish between a "major source" and a "synthetic minor source."

1.	Small Business Stationary Source Unknown
2.	Synthetic Non-Title V Source
3.	Title V Source
4.	Major Source of Air Pollutants, Other than Hazardous Air Pollutants (HAPs)
5.	Synthetic Minor Source of Air Pollutants, Other than HAPs
6.	Major Source of Hazardous Air Pollutants (HAPs)
7.	Synthetic Minor Source of HAPs
8.	One or More Emissions Units Subject to NSPS (40 CFR Part 60)
9.	One or More Emissions Units Subject to Emission Guidelines (40 CFR Part 60)
10.	One or More Emissions Units Subject to NESHAP (40 CFR Part 61 or Part 63)
11.	Title V Source Solely by EPA Designation (40 CFR 70.3(a)(5))
Faci New 60, S New	lity Regulatory Classifications Comment: lity will be a major source of Air Pollutants after these modifications. gas-fired compressor turbines (No. 2901/2902) are subject to (NSPS) 40 CFR Part Subpart KKKK gas-fired reciprocating internal combustion emergency generator engines are subject NSPS) 40 CFR 60 Subpart JJJJ.

List of Pollutants Emitted by Facility

1. Pollutant Emitted	2. Pollutant Classification	3. Emissions Cap [Y or N]?
NOX	В	N
СО	В	N
voc	В	N
SO2	В	N
PM	В	N
НАР	В	N

B. EMISSIONS CAPS

Facility-Wide or Multi-Unit Emissions Caps

1. Pollutant Subject to Emissions Cap	2. Facility- Wide Cap [Y or N]? (all units)	3. Emissions Unit 1D's Under Cap (if not all units)	4. Hourly Cap (lb/hr)	5. Annual Cap (ton/yr)	6. Basis for Emissions Cap
NA					
7 F 31' XV	N. 1.1. T. 1.1.		<u> </u>		
/. Facility-w	ide or Multi-Unit	Emissions Cap Con	nment:		

C. FACILITY ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

1.	revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) Attached, Document ID: <u>Attach. D</u> Previously Submitted, Date:
2.	Process Flow Diagram(s): (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) Attached, Document ID: <u>Attach. B</u> Previously Submitted, Date:
3.	Precautions to Prevent Emissions of Unconfined Particulate Matter: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) Attached, Document ID <u>Attach. C</u> Previously Submitted, Date:
Ac	Iditional Requirements for Air Construction Permit Applications
1.	Area Map Showing Facility Location: Attached, Document ID: <i>Narr. Fig. 1-1</i> Not Applicable (existing permitted facility)
2.	Description of Proposed Construction, Modification, or Plantwide Applicability Limit
	(PAL): ☑ Attached, Document ID: <i>Narr.Sect 2.0</i>
3.	Rule Applicability Analysis: Attached, Document ID: <i>Narr. Sect 3.0</i>
4.	List of Exempt Emissions Units: Attached, Document ID: <u>Attach. H</u> Not Applicable (no exempt units at facility)
5.	Fugitive Emissions Identification: Attached, Document ID: Narr. Sect 2.2.5 Not Applicable
6.	Air Quality Analysis (Rule 62-212.400(7), F.A.C.): Attached, Document ID: Not Applicable
7.	Source Impact Analysis (Rule 62-212.400(5), F.A.C.): Attached, Document ID: Not Applicable
8.	Air Quality Impact since 1977 (Rule 62-212.400(4)(e), F.A.C.): Attached, Document ID: Not Applicable
9.	Attached, Document ID: Not Applicable
10	. Alternative Analysis Requirement (Rule 62-212.500(4)(g), F.A.C.): Attached, Document ID: Not Applicable

C. FACILITY ADDITIONAL INFORMATION (CONTINUED)

Additional Requirements for FESOP Applications

1.	List of Exempt Emissions Units:
	Attached, Document ID: NA Not Applicable (no exempt units at facility)
<u>Ac</u>	Iditional Requirements for Title V Air Operation Permit Applications
1.	List of Insignificant Activities: (Required for initial/renewal applications only) Attached, Document ID: NA Not Applicable (revision application)
2.	Identification of Applicable Requirements: (Required for initial/renewal applications, and for revision applications if this information would be changed as a result of the revision being sought) Attached, Document ID: NA
	Not Applicable (revision application with no change in applicable requirements)
3.	Compliance Report and Plan: (Required for all initial/revision/renewal applications) Attached, Document ID: NA
	Note: A compliance plan must be submitted for each emissions unit that is not in compliance with all applicable requirements at the time of application and/or at any time during application processing. The department must be notified of any changes in compliance status during application processing.
4.	List of Equipment/Activities Regulated under Title VI: (If applicable, required for initial/renewal applications only) Attached, Document ID: NA
	Equipment/Activities Onsite but Not Required to be Individually ListedNot Applicable
5.	Verification of Risk Management Plan Submission to EPA: (If applicable, required for initial/renewal applications only) Attached, Document ID: NA
6.	Requested Changes to Current Title V Air Operation Permit: Attached, Document ID: NA Not Applicable

C. FACILITY ADDITIONAL INFORMATION (CONTINUED)

Additional Requirements for Facilities Subject to Acid Rain, CAIR, or Hg Budget Program

1.	Acid Rain Program Forms: NA
	Acid Rain Part Application (DEP Form No. 62-210.900(1)(a)):
	Attached, Document ID: Previously Submitted, Date:
	Not Applicable (not an Acid Rain source)
	Phase II NO _X Averaging Plan (DEP Form No. 62-210.900(1)(a)1.):
	Attached, Document ID: Previously Submitted, Date:
	Not Applicable
	New Unit Exemption (DEP Form No. 62-210.900(1)(a)2.):
	Attached, Document ID: Previously Submitted, Date:
	Not Applicable
2.	CAIR Part (DEP Form No. 62-210.900(1)(b)): NA
	Attached, Document ID: Previously Submitted, Date:
	Not Applicable (not a CAIR source)
3.	Hg Budget Part (DEP Form No. 62-210.900(1)(c)): NA
	Attached, Document ID: Previously Submitted, Date:
	Not Applicable (not a Hg Budget unit)
Add	ditional Requirements Comment
Atta	achment B provides a Process Flow Diagram
	achment C presents Precautions to Prevent Emissions of Unconfined Particulate Matter
1	achment D contains a plot plan.
	achment E has vendor supplied information.
	achment F has supporting calculations.
	achment G contains a fuel analysis achment H contains a list of Exempt Emission Units
Atto	aciment if contains a list of Exempt Ellission Offics

Section [1]

of [4]

A. GENERAL EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Emissions Unit Classification

1.	Regulated or Unregulated Emissions Unit? (Check one, if applying for an initial, revised or renewal Title V air operation permit. Skip this item if applying for an air construction permit or FESOP only.) NA							
	The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.							
	The emissions	unit addressed in this I	Emissions Unit Informa	ation Section is an				
	unregulated ei	nissions unit.						
En	nissions Unit Desci	ription and Status						
1.	Type of Emissions	Unit Addressed in this	Section: (Check one)					
	This Emission	s Unit Information Sect	ion addresses, as a sing	gle emissions unit, a				
	• .	or production unit, or a	-					
		which has at least one of	•					
	-	s Unit Information Sect	•					
	•	ss or production units a (stack or vent) but may						
	-	•						
	-		-	gle emissions unit, one or e fugitive emissions only.				
	2. Description of	Emissions Unit Addres	sed in this Section:					
	7,800 bhp (ISO) n	atural gas fired turbine	compressor unit, FGT l	Engine No. 2901				
3.	Emissions Unit Ide	entification Number: 00)1					
4.	Emissions Unit	5. Commence	6. Initial Startup	7. Emissions Unit				
	Status Code:	Construction	Date:	Major Group				
	С	Date:	NA	SIC Code: 49				
8.		YYY Applicability: (Check al	<u> </u>	4)				
0.	Acid Rain Uni	• •	i that apply)					
	CAIR Unit							
	Hg Budget Un	iit						
9.	Package Unit:							
	Manufacturer: So	lar	Model Number:	Taurus 60 - 7800S				
10.	10. Generator Nameplate Rating: MW							
11. Emissions Unit Comment:								
Fuel will be exclusively natural gas from the FGT's gas pipeline. The proposed engine will incorporate dry, low NO_X combustion technology. 7,277 bhp with inlet and exhaust losses of 4.0 inches H2O.								

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Effective: 3/16/08 A-14

Section [1] of [4]

Emissions	Unit	Control	Equipm	ent/Method:	Control 1	of 1

1. Control Equipment/Method Description:
The proposed engine will incorporate dry, low NO _X combustion technology.
2. Control Device or Method Code: 99
Emissions Unit Control Equipment/Method: Control of
1. Control Equipment/Method Description:
2. Control Device or Method Code:
Emissions Unit Control Equipment/Method: Control of
1. Control Equipment/Method Description:
2. Control Device or Method Code:
2. Control Device or Method Code: Emissions Unit Control Equipment/Method: Control of
Emissions Unit Control Equipment/Method: Control of
Emissions Unit Control Equipment/Method: Control of

Section [1]

of [4]

B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

1. Maximum Process or Throughput Rate: NA

2. Maximum Production Rate: NA

3. Maximum Heat Input Rate: 67.09 million Btu/hr HHV

4. Maximum Incineration Rate: pounds/hr NA

tons/day

5. Requested Maximum Operating Schedule:

24 hours/day

7 days/week

52 weeks/year

8760 hours/year

6. Operating Capacity/Schedule Comment:

Heat input is 67.09 MM Btu/hr Higher heating value (HHV). This is based on a vendor provided bhp of 7,277 bhp, a specific heat rate of 8,326 Btu/hp-hr, a lower heating value (LHV) of 939.2 Btu/scf and a higher heating value (HHV) of 1040 Btu/scf.

DEP Form No. 62-210.900(1) - Form

Effective: 3/16/08

A-16

Section [1] of [4]

C. EMISSION POINT (STACK/VENT) INFORMATION

(Optional for unregulated emissions units.)

Emission Point Description and Type

1.	Identification of Point on Flow Diagram: 2901	Plot Plan or	2. Emission Point 7	Гуре Code:	
3.	Descriptions of Emission	Points Comprising	g this Emissions Unit	for VE Tracking:	
	NA				
4.	ID Numbers or Descriptio	ns of Emission U	nits with this Emission	n Point in Common:	
	NA				
5.	Discharge Type Code: V	6. Stack Height 55 Feet	:	7. Exit Diameter: 6.0 feet	
8.	Exit Temperature: 956 °F	9. Actual Volumetric Flow Rate: 101,546 acfin		10. Water Vapor: NA %	
11.	. Maximum Dry Standard F NA dscfm	low Rate:	12. Nonstack Emission Point Height: NA feet		
13.	Emission Point UTM Coo Zone: 17 East (km):	rdinates 494.3	14. Emission Point I Latitude (DD/M	Latitude/Longitude M/SS)	
	North (km)	: 3012.4	Longitude (DD/I	MM/SS)	
15.	Emission Point Comment:	:			
	None				
	, 				

Section [1] of

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 1

1. Segment Description (Process/Fuel Type):							
Natural gas fired turbine engine driving a natural gas compressor, operating full time.							
2. Source Classification Cod	e (SCC):	3. SCC Units:					
2-02-002-01	(000).	1		n cubic feet burned			
4. Maximum Hourly Rate: 5. Maximum Annual Rate: 6. Estimated Annual Activity 565.10 Factor: NA							
7. Maximum % Sulfur: NA	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1						
10. Segment Comment:							
None							
				<u> </u>			
Segment Description and Ra		of					
1. Segment Description (Pro-	cess/Fuel Type):						
2. Source Classification Code (SCC): 3. SCC Units:							
4. Maximum Hourly Rate:	5. Maximum	Annual Rate:	6.	Estimated Annual Activity Factor:			
7. Maximum % Sulfur:	8. Maximum 9	% Ash:	9.	Million Btu per SCC Unit:			
10. Segment Comment:	10. Segment Comment:						

Section [1] of [4]

E. EMISSIONS UNIT POLLUTANTS

List of Pollutants Emitted by Emissions Unit

1. Pollutant Emitted	2. Primary Control	3. Secondary Control	4. Pollutant
	Device Code	Device Code	Regulatory Code
VOC			NS
SO ₂			EL
PM2.5			NS
NO _X	99		EL
СО			NS
PM10			NS
HAPs			NS

EMISSIONS UNIT INFORMATION Section [1] of [4]

POLLUTANT DETAIL INFORMATION
Page | 1 | of | 6 |

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Pollutant Emitted: NOX	2. Total Percent Efficie	ency of Control:
3. Potential Emissions:	4. Synth	netically Limited?
	l ————	es No
5. Range of Estimated Fugitive Emissions	(as applicable): NA	
to tons/year		
6. Emission Factor: 6.04 lb/hr		7. Emissions
		Method Code:
Reference: Vendor data		5
8.a. Baseline Actual Emissions (if required):	8.b. Baseline 24-month	Period:
NA tons/year	From:	To:
9.a. Projected Actual Emissions (if required):	9.b. Projected Monitori	ng Period:
NA tons/year	5 years	10 years
10. Calculation of Emissions:		}
(6.04 lb/hr)(1 ton/2000 lb)(8760hr/1 yr) = 26	6.46 tons/year	
11. Potential, Fugitive, and Actual Emissions Co	omment:	
Vendor's data based on ISO conditions with inle	et and exhaust losses of 4	" of H2O
. Chaor o data outed on 150 conditions with his	ot and omidable looses of T	0,1120.

EMISSIONS UNIT INFORMATION Section [1] of [4]

POLLUTANT DETAIL INFORMATION Page [1] of [6]

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

to a numerical emissions limitation.	
Allowable Emissions 1	of <u>l</u>
Basis for Allowable Emissions Code: RULE	Future Effective Date of Allowable Emissions: NA
3. Allowable Emissions and Units: 25 ppmvd @ 15% O2	4. Equivalent Allowable Emissions: 6.04 lb/hour 26.46 tons/year
5. Method of Compliance: Initial performance test	
6. Allowable Emissions Comment (Description	of Operating Method):
40 CFR 60.4320(a) limits NOX emissions to	25 ppmv.
Allowable Emissions Allowable Emissions	of
Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description	of Operating Method):
Allowable Emissions Allowable Emissions	of
Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour
5. Method of Compliance:	
6. Allowable Emissions Comment (Description	of Operating Method):

7

POLLUTANT DETAIL INFORMATION
Page [2] of [6]

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1 otentian Estimated 1 ugitive; and Dusenite of	Z TO CETEG TETEGET ZIM	, <u>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</u>
Pollutant Emitted: CO	2. Total Percent Efficie	ency of Control:
3. Potential Emissions:	4. Synth	netically Limited?
	tons/year Y	es No
5. Range of Estimated Fugitive Emissions	(as applicable): NA	
to tons/year		
6. Emission Factor: 7.35 lb/hr		7. Emissions
o. Emission ractor, 7.33 lo/m		Method Code:
Reference: Vendor data		5
8.a. Baseline Actual Emissions (if required):	8.b. Baseline 24-month	Period:
NA tons/year	From:	Γo:
9.a. Projected Actual Emissions (if required):	9.b. Projected Monitori	ng Period:
NA tons/year] ,	
,	5 years	☐ 10 years
10. Calculation of Emissions:		
(7.35 lb/hr)(1 ton/2000 lb)(8760hr/1 yr) = 32	2.19 tons/year	
	•	
11. Potential, Fugitive, and Actual Emissions Co		
11. I otential, I ugitive, and Actual Ethissions Co	ommetic.	
Vendor's data based on ISO conditions with inle	et and exhauet locces of A	" of H2O
Vendor's data based on 150 conditions with fill	er and exhaust 1055c5 01 4	011140.

EMISSIONS UNIT INFORMATION Section [1] [4] of

POLLUTANT DETAIL INFORMATION Page [2] of [6]

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -**ALLOWABLE EMISSIONS**

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable	Emissions	Allowable	Emiss	sions	NA	of

$\underline{\mathbf{A}}$	lowable Emissions Allowable Emissions NA	<u>1</u> 01	•
1.	Basis for Allowable Emissions Code:	2.	Future Effective Date of Allowable Emissions: NA
3.	Allowable Emissions and Units:	4.	Equivalent Allowable Emissions: lb/hour tons/year
5.	Method of Compliance:		
	Allowable Emissions Comment (Description		Operating Method):
Al	lowable Emissions Allowable Emissions	of_	_
1.	Basis for Allowable Emissions Code:	2.	Future Effective Date of Allowable Emissions:
3.	Allowable Emissions and Units:	4.	Equivalent Allowable Emissions: lb/hour tons/year
	Method of Compliance: Allowable Emissions Comment (Description	of(Operating Method):
Al	owable Emissions Allowable Emissions	of_	<u>_</u>
1.	Basis for Allowable Emissions Code:	2.	Future Effective Date of Allowable Emissions:
3.	Allowable Emissions and Units:	4.	Equivalent Allowable Emissions: lb/hour
5.	Method of Compliance:		
6.	Allowable Emissions Comment (Description	of (Operating Method):

EMISSIONS UNIT INFORMATION Section [1] of [4]

POLLUTANT DETAIL INFORMATION
Page [3] of [6]

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Totellian Estimated Tughtive, and Buseline of	TIO CECCO MECCAMI EMIS	<u> </u>
Pollutant Emitted: VOC	2. Total Percent Efficient	ency of Control:
3. Potential Emissions:	4. Synth	netically Limited?
		es No
		es 🖂 No
5. Range of Estimated Fugitive Emissions	(as applicable): NA	
to tons/year		
6. Emission Factor: 0.21 lb/hr		7. Emissions
		Method Code:
Reference: Vendor data		5
	8.b. Baseline 24-month	
8.a. Baseline Actual Emissions (if required):		
NA tons/year	From:	Co:
9.a. Projected Actual Emissions (if required):	9.b. Projected Monitori	ng Period:
NA tons/year	5 years	10 years
10. Calculation of Emissions:		
UHC = 2.11 lb/hr, assume VOC = 10% UHC (0.21 lb/hr)(1 ton/2000 lb)(8760hr/1 yr) = 0.	92 tons/year	
11. Potential, Fugitive, and Actual Emissions Co	omment:	
Vendor's data based on ISO conditions with inle	et and exhaust losses of 4	" of H2O.

EMISSIONS UNIT INFORMATION Section [1] of [4]

POLLUTANT DETAIL INFORMATION Page [3] of [6]

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -**ALLOWABLE EMISSIONS**

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions	Allowable Emission	s NA of

<u>A1</u>	lowable Emissions Allowable Emissions N	<u>A</u> 01
1.	Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3.	Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5.	Method of Compliance:	
	Allowable Emissions Comment (Description	· · · · · · · · · · · · · · · · · · ·
<u>Al</u>	lowable Emissions Allowable Emissions	of
1.	Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3.	Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
	Method of Compliance: Allowable Emissions Comment (Description	n of Operating Method):
	lowable Emissions Allowable Emissions	of
1.	Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3.	Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5.	Method of Compliance:	
6.	Allowable Emissions Comment (Description	n of Operating Method):

POLLUTANT DETAIL INFORMATION
Page [4] of [6]

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Pollutant Emitted: SO2	2. Total Percent Efficient	ency of Control:
3. Potential Emissions: 1.84 lb/hour 8.07		hetically Limited? Yes 🔲 No
to tons/year	(as applicable): NA	
6. Emission Factor: 10 grain/100 scf Reference: FERC limit		7. Emissions Method Code: 2
8.a. Baseline Actual Emissions (if required): NA tons/year	8.b. Baseline 24-month From:	Period: Γο:
9.a. Projected Actual Emissions (if required): NA tons/year	9.b. Projected Monitori 5 years	ing Period: 10 years
10. Calculation of Emissions: (10 gr S/100 scf)(64,500 scf/hr)(1 lb/7000 gr) = 0.92 (0.921 lb S/hr)(2 lb SO2/lb S) = 1.843 lb SO2/hr (1.843 lb SO2/hr)(8760 hr/yr)(1 ton/2000 lb) = 8.073	s ton/yr	
11. Potential, Fugitive, and Actual Emissions Co	omment:	
Vendor's data based on ISO conditions with inle	et and exhaust losses of 4	of H2O.

EMISSIONS UNIT INFORMATION Section [1] of [4]

POLLUTANT DETAIL INFORMATION Page | 4 | of | 6 |

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

to a numerical emissions limitation.	
Allowable Emissions 1	of <u>1</u>
Basis for Allowable Emissions Code: RULE	Future Effective Date of Allowable Emissions: NA
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: 1.84 lb/hour 8.07 tons/year
5. Method of Compliance: Initial performance test	
6. Allowable Emissions Comment (Description	n of Operating Method):
40 CFR 60.4330(a)(2) limitsSO2 emissions	to 4.03 lb/hr.
Allowable Emissions	of
1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description	of Operating Method):
Allowable Emissions Allowable Emissions	of
1. Basis for Allowable Emissions Code:	Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description	n of Operating Method):

EMISSIONS UNIT INFORMATION Section [1] of [4]

POLLUTANT DETAIL INFORMATION
Page [5] of [6]

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Pollutant Emitted: PM	2. Total Percent Efficien	ncy of Control:
3. Potential Emissions: 0.44 lb/hour 1.94		etically Limited? es No
to tons/year	(as applicable): NA	
6. Emission Factor: 0.0066 lb/MM Btu		7. Emissions Method Code:
Reference: Table 3.1-2a, AP-42 4/00		3
8.a. Baseline Actual Emissions (if required):	8.b. Baseline 24-month	
NA tons/year		0:
9.a. Projected Actual Emissions (if required):	9.b. Projected Monitorin	~~ I
NA tons/year 10. Calculation of Emissions:	5 years	10 years
(0.0066 lb/MM Btu)(64.50 MM Btu/hr) = 0 (0.443 lb/hr)(8760 hr/yr)(1 ton/2000 lb) = 1.	939 ton/y	
11. Potential, Fugitive, and Actual Emissions Co Based on vendor's heat input data at ISO condit H2O and fuel higher heat value of 1040 Btu/scf	ions with inlet and exhaus	et losses of 4" of

EMISSIONS UNIT INFORMATION Section [1] of [4]

POLLUTANT DETAIL INFORMATION of [6] Page [5]

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -**ALLOWABLE EMISSIONS**

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions NA	ot
--	----

All	lowable Emissions Allowable Emissions NA	<u>A</u> 01				
1.	Basis for Allowable Emissions Code:	Future Effective Date of Allowable Emissions: NA				
3.	Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year				
5.	Method of Compliance:					
	6. Allowable Emissions Comment (Description of Operating Method):					
All	lowable Emissions Allowable Emissions	_ of				
l.	Basis for Allowable Emissions Code:	Future Effective Date of Allowable Emissions:				
3.	Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year				
5.	Method of Compliance:					
6.	6. Allowable Emissions Comment (Description of Operating Method):					
All	lowable Emissions Allowable Emissions	_of				
1.	Basis for Allowable Emissions Code:	Future Effective Date of Allowable Emissions:				
3.	Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year				
5.	Method of Compliance:					
6.	Allowable Emissions Comment (Description	n of Operating Method):				

EMISSIONS UNIT INFORMATION Section [1] of [4]

POLLUTANT DETAIL INFORMATION
Page [6] of [6]

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Totential, Estimated Tugitive, and Dasenne & Trojected Actual Emissions					
Pollutant Emitted: HAPS	2. Total Percent Efficie	ency of Control:			
3. Potential Emissions:	4. Synth	etically Limited?			
		es No			
0.07 10/11041 0.30	o tons/ year	es 🖂 No			
5. Range of Estimated Fugitive Emissions	(as applicable): NA				
to tons/year					
		7 5			
6. Emission Factor: 0.001027 lb/MM Btu		7. Emissions			
		Method Code:			
Reference: AP-42, Table 3.1-2a		3			
8.a. Baseline Actual Emissions (if required):	8.b. Baseline 24-month	Period:			
NA tons/year	From: T	o:			
9.a. Projected Actual Emissions (if required):	9.b. Projected Monitoria	ag Dariad:			
l , , , , , , , , , , , , , , , , , , ,		ilg Feriod.			
NA tons/year	5 years	」10 years			
10. Calculation of Emissions:					
(0.001027 lb/MM Btu)(64.50 MM Btu/hr) = 0.069 lb/hr (0.069 lb/hr)(8760 hr/yr)(1 ton/2000 lb) = 0.302 ton/y					
11. Potential, Fugitive, and Actual Emissions Comment:					
Based on vendor's heat input data at ISO conditions with inlet and exhaust losses of 4" of H2O and fuel higher heat value of 1040 Btu/scf					

EMISSIONS UNIT INFORMATION Section [1] of [4]

POLLUTANT DETAIL INFORMATION Page [6] of [6]

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

All	Allowable Emissions NA of						
1.	Basis for Allowable Emissions Code: 2. Future Effective Date of Allowable Emissions: NA						
3.	Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year					
5.	Method of Compliance:						
	6. Allowable Emissions Comment (Description of Operating Method):						
All	owable Emissions Allowable Emissions	of_					
1.	Basis for Allowable Emissions Code:	2.	Future Effective Date of Allowable Emissions:				
3.	Allowable Emissions and Units:	4.	Equivalent Allowable Emissions: lb/hour tons/year				
All	owable Emissions Allowable Emissions	of_	_				
1.	Basis for Allowable Emissions Code:	2.	Future Effective Date of Allowable Emissions:				
3.	Allowable Emissions and Units:	4.	Equivalent Allowable Emissions: lb/hour tons/year				
5.	5. Method of Compliance:						
6.	6. Allowable Emissions Comment (Description of Operating Method):						

Section [1] **of** [4]

G. VISIBLE EMISSIONS INFORMATION

Complete Subsection G if this emissions unit is or would be subject to a unit-specific visible emissions limitation.

<u>Visible Emissions Limitation:</u> Visible Emissions Limitation <u>1</u> of <u>1</u>

F; 141 ;

1.	Visible Emissions Subtype: VE10	2. Basis for Allowable C Rule	Opacity: Other
3.	1 2	sceptional Conditions: ed:	% min/hour
	3. Method of Compliance: Annual testing with Method 9		
	4. Visible Emissions Comment: Subject to 62-296-320(4)(b) General Visible	e Emissions Standards.	
Vi	sible Emissions Limitation: Visible Emiss	ions Limitation of	
1.	Visible Emissions Subtype:	2. Basis for Allowable C Rule	Opacity: Other
3.	Allowable Opacity: Normal Conditions: % Ex Maximum Period of Excess Opacity Allow	cceptional Conditions:	% min/hour
4.	Method of Compliance:		
5.	Visible Emissions Comment:		

Section [1] of [4]

H. CONTINUOUS MONITOR INFORMATION

Complete Subsection H if this emissions unit is or would be subject to continuous monitoring.

Continuous Monitoring System: Continuous Monitor NA of ____ 1. Parameter Code: 2. Pollutant(s): 3. CMS Requirement: Rule Other 4. Monitor Information... Manufacturer: Model Number: Serial Number: 5. Installation Date: 6. Performance Specification Test Date: 7. Continuous Monitor Comment: Continuous Monitoring System: Continuous Monitor ___ of ___ 1. Parameter Code: 2. Pollutant(s): 3. CMS Requirement: Rule Other 4. Monitor Information... Manufacturer: Model Number: Serial Number: 6. Performance Specification Test Date: 5. Installation Date: 7. Continuous Monitor Comment:

Section [1] of [4]

I. EMISSIONS UNIT ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

1.	Process Flow Diagram: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) Attached, Document ID: Attach. B Previously Submitted, Date
2.	Fuel Analysis or Specification: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) Attached, Document ID: <u>Attach. G</u> Previously Submitted, Date
3.	Detailed Description of Control Equipment: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) Attached, Document ID: NA Previously Submitted, Date
4.	Procedures for Startup and Shutdown: (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
	Attached, Document ID: Previously Submitted, Date Not Applicable (construction application)
5.	Operation and Maintenance Plan: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) Attached, Document ID:
6.	Compliance Demonstration Reports/Records:
	Attached, Document ID:
	Test Date(s)/Pollutant(s) Tested:
	Previously Submitted, Date:
	Test Date(s)/Pollutant(s) Tested:
	To be Submitted, Date (if known):
	Test Date(s)/Pollutant(s) Tested:
	Not Applicable
	Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.
7.	Other Information Required by Rule or Statute: Attached, Document ID: Not Applicable

Section [1] **of** [4]

I. EMISSIONS UNIT ADDITIONAL INFORMATION (CONTINUED)

Additional Requirements for Air Construction Permit Applications

1. Control Technology Review and Analysis (Rules 62-212.400(10) and 62-212.500(7),				
F.A.C.; 40 CFR 63.43(d) and (e)):				
Attached, Document ID: <u>Narr. Sec. 3.0</u> Not Applicable				
2. Good Engineering Practice Stack Height Analysis (Rules 62-212.400(4)(d) and 62-				
212.500(4)(f), F.A.C.):				
Attached, Document ID: Not Applicable				
3. Description of Stack Sampling Facilities: (Required for proposed new stack sampling facilities only)				
Attached, Document ID: <u>See Note Below</u> Not Applicable				
Additional Requirements for Title V Air Operation Permit Applications				
1. Identification of Applicable Requirements:				
Attached, Document ID: NA				
2. Compliance Assurance Monitoring:				
Attached, Document ID: Not Applicable				
3. Alternative Methods of Operation:				
Attached, Document ID: Not Applicable				
4. Alternative Modes of Operation (Emissions Trading):				
Attached, Document ID: Not Applicable				
Additional Requirements Comment				
Supplemental information is provided in the narrative description accompanying these forms.				
Specifications for the engine silencers/stacks have not been completed at this time. Final				
specifications will comply with USEPA and FDEP regulatory requirements.				

Section [2]

of [4]

A. GENERAL EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Emissions Unit Classification

1.	. Regulated or Unregulated Emissions Unit? (Check one, if applying for an initial, revised or renewal Title V air operation permit. Skip this item if applying for an air construction permit or FESOP only.) NA					
	The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.					
	The emissions	unit addressed in this E	Emissions Unit Informat	tion Section is an		
	unregulated et	nissions unit.				
En	nissions Unit Desci	ription and Status				
1.	Type of Emissions	Unit Addressed in this	Section: (Check one)			
	This Emission	s Unit Information Sect	ion addresses, as a sing	le emissions unit, a		
	— •	or production unit, or ac	•			
	pollutants and	which has at least one d	efinable emission point	(stack or vent).		
		s Unit Information Sect		•		
	~	ss or production units an (stack or vent) but may				
	•	•				
				le emissions unit, one or e fugitive emissions only.		
	1. Description of	Emissions Unit Address	sed in this Section:			
	7 900 1.1 (190)	-A1 1 A1 i	······································			
	7,800 onp (180) n	atural gas fired turbine o	compressor unit, FG1 E	ngine No. 2902		
3.	Emissions Unit Ide	entification Number: 00)2			
4.	Emissions Unit	5. Commence	6. Initial Startup	7. Emissions Unit		
	Status Code:	Construction	Date:	Major Group		
	С	Date: NA	NA	SIC Code:		
0		pplicability: (Check al		49		
8.			i that apply)			
	Acid Rain Uni	ι				
	CAIR Unit					
	☐ Hg Budget Un	it	· · · · · · · · · · · · · · · · · · ·			
9.	Package Unit:	l	Madal Normalisan	T (0 70000		
10	Manufacturer: So		Model Number:	Taurus 60 - 7800S		
	Generator Namepl					
11.	11. Emissions Unit Comment:					
Fue	Fuel will be exclusively natural gas from the FGT's gas pipeline. The proposed engine will					
	incorporate dry, low NO _X combustion technology.					

Section [2] **of** [4]

Emissions Unit Control Equipment/Method: Control 1 of 1

1. Control Equipment/Method Description:					
The proposed engine will incorporate dry, low NO _X combustion technology.					
2. Control Device or Method Code: 99					
Emissions Unit Control Equipment/Method: Control of					
1. Control Equipment/Method Description:					
2. Control Device or Method Code:					
Emissions Unit Control Equipment/Method: Control of					
1. Control Equipment/Method Description:					
2. Control Device or Method Code:					
Emissions Unit Control Equipment/Method: Control of					
1. Control Equipment/Method Description:					
2. Control Device or Method Code:					

Section [2]

of [4]

B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

1.	Maximum Process or Throughput Rate: NA			
2.	. Maximum Production Rate: NA			
3.	3. Maximum Heat Input Rate: 67.09 million Btu/hr HHV			
4.	. Maximum Incineration Rate: pounds/hr NA			
	tons/day			
5.	5. Requested Maximum Operating Schedule:			
	24 hours/day	7 days/week		
	52 weeks/year	8760 hours/year		

6. Operating Capacity/Schedule Comment:

Heat input is 56.09 MM Btu/hr Higher heating value (HHV). This is based on a vendor provided bhp of 7,277 bhp, a specific heat rate of 8,326 Btu/hp-hr, a lower heating value (LHV) of 939.2 Btu/scf and a higher heating value (HHV) of 1040 Btu/scf.

Section [2]

of [4]

C. EMISSION POINT (STACK/VENT) INFORMATION

(Optional for unregulated emissions units.)

Emission Point Description and Type

1.	Identification of Point on Flow Diagram: 2902	Plot Plan or	2.	Emission Point 7	Гуре Code:	
3.	Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking:				for VE Tracking:	
	NA					
4.	ID Numbers or Descriptio	ns of Emission Ur	its v	vith this Emission	Point in Common:	
	NA					
5.	Discharge Type Code: V	6. Stack Height 55 Feet	:		7. Exit Diameter: 6.0 feet	
8.	Exit Temperature: 956 °F	9. Actual Volum 101,546 acfm		c Flow Rate:	10. Water Vapor: NA %	
11. Maximum Dry Standard Flow Rate: NA dscfm			12. Nonstack Emission Point Height: NA feet			
13.	Emission Point UTM Coo Zone: 17 East (km):	rdinates 494.3	14. Emission Point Latitude/Longitude Latitude (DD/MM/SS)			
	North (km)	: 3012.4	Longitude (DD/MM/SS)			
15.	Emission Point Comment:					
	None					
	· 					

Section [2]

of [4]

D. SEGMENT (PROCESS/FUEL) INFORMATION

Natural gas fired turbine engine driving a natural gas compressor, operating full time.

Segment Description and Rate: Segment 1 of 1

1. Segment Description (Process/Fuel Type):

2. Source Classification Code	3. SCC Units:					
2-02-002-01		m	11110	n cubic feet burned		
4. Maximum Hourly Rate: 0.0645	5. Maximum Annual Rate: 565.10		6.	Estimated Annual Activity Factor: NA		
7. Maximum % Sulfur: NA	8. Maximum N	% Ash: A	9.	Million Btu per SCC Unit: 1040		
10. Segment Comment:			-			
None				·		
Segment Description and Ra	ite: Segment	of_				
1. Segment Description (Process/Fuel Type):						
2. Source Classification Code	2. Source Classification Code (SCC): 3. SCC Units:					
4. Maximum Hourly Rate:	. Maximum Hourly Rate: 5. Maximum Annual Rate:			Estimated Annual Activity Factor:		
7. Maximum % Sulfur:	8. Maximum % Ash:		9.	Million Btu per SCC Unit:		
10. Segment Comment:						

DEP Form No. 62-210.900(1) – Form Effective: 3/16/08

A-40

Section [2] **of** [4]

E. EMISSIONS UNIT POLLUTANTS

List of Pollutants Emitted by Emissions Unit

1. Pollutant Emitted	Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
VOC			NS
SO ₂			EL
PM2.5			NS
NO _X	99		EL
СО			NS
PM10			NS
HAPs			NS

EMISSIONS UNIT INFORMATION Section [2] of [4]

POLLUTANT DETAIL INFORMATION
Page [1] of [6]

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Pollutant Emitted: NOX	2. Total Percent Efficiency of Control:
3. Potential Emissions: 6.04 lb/hour 26.46	4. Synthetically Limited? Stons/year Yes No
5. Range of Estimated Fugitive Emissions to tons/year	(as applicable): NA
6. Emission Factor: 6.04 lb/hr Reference: Vendor data	7. Emissions Method Code: 5
8.a. Baseline Actual Emissions (if required):	8.b. Baseline 24-month Period:
NA tons/year	From: To:
9.a. Projected Actual Emissions (if required):	9.b. Projected Monitoring Period:
NA tons/year	5 years 10 years
10. Calculation of Emissions:	
(6.04 lb/hr)(1 ton/2000 lb)(8760hr/1 yr) = 20	
11. Potential, Fugitive, and Actual Emissions Co	omment:
Vendor's data based on ISO conditions with inle	et and exhaust losses of 4" of H2O.

EMISSIONS UNIT INFORMATION Section [2] of [4]

POLLUTANT DETAIL INFORMATION
Page [1] of [6]

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

to a numerical emissions limitation.					
Allowable Emissions 1 of 1					
Basis for Allowable Emissions Code: RULE	Future Effective Date of Allowable Emissions: NA				
3. Allowable Emissions and Units: 25 ppmvd @ 15% O2	4. Equivalent Allowable Emissions: 6.04 lb/hour 26.46 tons/year				
5. Method of Compliance: Initial performance test					
6. Allowable Emissions Comment (Description of Operating Method):40 CFR 60.4320(a) limits NOX emissions to 25 ppmv.					
Allowable Emissions of					
1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:				

AI	iowable Emissions Allowable Emissions	01 _	_	
1.	Basis for Allowable Emissions Code:	2.	Future Effective Da Emissions:	te of Allowable
3.	Allowable Emissions and Units:	4.	Equivalent Allowab lb/hour	ole Emissions: tons/year
5.	Method of Compliance:			
6.	Allowable Emissions Comment (Description	of (Operating Method):	

Allowable Emissions __ of ___

1.	Basis for Allowable Emissions Code:	2.	Future Effective Date Emissions:	te of Allowable
3.	Allowable Emissions and Units:	4.	Equivalent Allowab lb/hour	le Emissions: tons/year
5.	Method of Compliance:			
6.	Allowable Emissions Comment (Description	of (Operating Method):	

DEP Form No. 62-210.900(1) – Form Effective: 3/16/08

A-43

POLLUTANT DETAIL INFORMATION
Page | 2 | of | 6 |

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Pollutant Emitted: CO	2. Total Percent Efficiency of Control:
3. Potential Emissions: 7.35 lb/hour 32.19	4. Synthetically Limited? Yes No
to tons/year	(as applicable): NA
6. Emission Factor: 7.35 lb/hr Reference: Vendor data	7. Emissions Method Code: 5
8.a. Baseline Actual Emissions (if required): NA tons/year	8.b. Baseline 24-month Period: From: To:
9.a. Projected Actual Emissions (if required): NA tons/year	9.b. Projected Monitoring Period: 5 years 10 years
10. Calculation of Emissions:	
(7.35 lb/hr)(1 ton/2000 lb)(8760hr/1 yr) = 32	2.19 tons/year
11. Potential, Fugitive, and Actual Emissions Co	omment:
Vendor's data based on ISO conditions with inle	et and exhaust losses of 4" of H2O.

POLLUTANT DETAIL INFORMATION Page [2] of [6]

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable I	Emissions	Allowable	F missions	NA	of
Allowable 1	_ 11113310113	A VIIIO W abic	LIMOSIUMS	11/1/1	· · · ·

1.	Basis for Allowable Emissions Code:	Future Effective Date of Allowable Emissions: NA
3.	Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5.	Method of Compliance:	
6.	Allowable Emissions Comment (Description	of Operating Method):
All	owable Emissions Allowable Emissions	of
1.	Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3.	Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5.	Method of Compliance:	
6.	Allowable Emissions Comment (Description	of Operating Method):
All	owable Emissions Allowable Emissions	of
1.	Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3.	Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5.	Method of Compliance:	'
6.	Allowable Emissions Comment (Description	of Operating Method):

POLLUTANT DETAIL INFORMATION
Page | 3 | of | 6 |

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Pollutant Emitted: VOC	2. Total Percent Efficiency of Control:				
3. Potential Emissions: 0.21 lb/hour 0.92	4. Synthetically Limited? Yes No				
5. Range of Estimated Fugitive Emissions to tons/year	(as applicable): NA				
6. Emission Factor: 0.21 lb/hr Reference: Vendor data	7. Emissions Method Code: 5				
8.a. Baseline Actual Emissions (if required):	8.b. Baseline 24-month Period:				
NA tons/year	From: To:				
9.a. Projected Actual Emissions (if required):	9.b. Projected Monitoring Period:				
NA tons/year	5 years 10 years				
10. Calculation of Emissions: UHC = 2.11 lb/hr, assume VOC = 10% UHC (0.21 lb/hr)(1 ton/2000 lb)(8760hr/1 yr) = 0.					
11. Potential, Fugitive, and Actual Emissions Comment:					
Vendor's data based on ISO conditions with inle	Vendor's data based on ISO conditions with inlet and exhaust losses of 4" of H2O.				

EMISSIONS UNIT INFORMATION Section [2] of [4]

POLLUTANT DETAIL INFORMATION Page [3] of [6]

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions NA of

1.	Basis for Allowable Emissions Code:	2.	Future Effective Date of Allowable Emissions:
3.	Allowable Emissions and Units:	4.	Equivalent Allowable Emissions: lb/hour tons/year
5.	Method of Compliance:		
6.	Allowable Emissions Comment (Description	of	Operating Method):
Al	lowable Emissions Allowable Emissions	of_	_
1.	Basis for Allowable Emissions Code:	2.	Future Effective Date of Allowable Emissions:
3.	Allowable Emissions and Units:	4.	Equivalent Allowable Emissions: lb/hour tons/year
5.	Method of Compliance:		
6.	Allowable Emissions Comment (Description	of (Operating Method):
<u>A</u> l	lowable Emissions Allowable Emissions	of_	_
1.	Basis for Allowable Emissions Code:	2.	Future Effective Date of Allowable Emissions:
3.	Allowable Emissions and Units:	4.	Equivalent Allowable Emissions: lb/hour tons/year
5.	Method of Compliance:		
6.	Allowable Emissions Comment (Description	of (Operating Method):

EMISSIONS UNIT INFORMATION Section [2] of [4]

POLLUTANT DETAIL INFORMATION
Page [4] of [6]

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: SO2	2. Total Percent Efficient	ency of Control:			
3. Potential Emissions: 1.84 lb/hour 8.07		hetically Limited? Yes 🛛 No			
5. Range of Estimated Fugitive Emissions to tons/year	(as applicable): NA				
6. Emission Factor: 10 grain/100 scf Reference: FERC limit		7. Emissions Method Code: 2			
8.a. Baseline Actual Emissions (if required): NA tons/year	8.b. Baseline 24-month From:	Period:			
9.a. Projected Actual Emissions (if required): NA tons/year	9.b. Projected Monitori 5 years	ng Period: 10 years			
10. Calculation of Emissions: (10 gr S/100 scf)(64,500 scf/hr)(1 lb/7000 gr) = 0.921 lb S/hr (0.921 lb S/hr)(2 lb SO2/lb S) = 1.843 lb SO2/hr (1.843 lb SO2/hr)(8760 hr/yr)(1 ton/2000 lb) = 8.073 ton/yr					
11. Potential, Fugitive, and Actual Emissions Co	omment:				
Vendor's data based on ISO conditions with inle	et and exhaust losses of 4	" of H2O.			

EMISSIONS UNIT INFORMATION Section [2] of [4]

POLLUTANT DETAIL INFORMATION Page [4] of [6]

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -**ALLOWABLE EMISSIONS**

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of	Allowable	Emissions	Allowable	Emissions	1	of	1
--	-----------	------------------	-----------	------------------	---	----	---

1.	Basis for Allowable Emissions Code: RULE	2.	Future Effective Date o Emissions: NA	f Allowable
3.	Allowable Emissions and Units:	4.	Equivalent Allowable E 1.84 lb/hour	Emissions: 8.07 tons/year
5.	Method of Compliance: Initial performance test		·	
6.	Allowable Emissions Comment (Description	of	Operating Method):	
	40 CFR 60.4330(a)(2) limitsSO2 emissions t	to 4.	03 lb/hr.	
Al	lowable Emissions Allowable Emissions	of_		
1.	Basis for Allowable Emissions Code:	2.	Future Effective Date o Emissions:	f Allowable
3.	Allowable Emissions and Units:	4.	Equivalent Allowable E	
_	Mahada 60 and Kanan		lb/hour	tons/year
5.	Method of Compliance:			
6.	Allowable Emissions Comment (Description	of	Operating Method):	
Al	lowable Emissions Allowable Emissions	of_	_	
1.	Basis for Allowable Emissions Code:	2.	Future Effective Date o Emissions:	f Allowable
3.	Allowable Emissions and Units:	4.	Equivalent Allowable E lb/hour	Emissions: tons/year
5.	Method of Compliance:			
6.	Allowable Emissions Comment (Description	of	Operating Method):	

Section [2] of [4]

POLLUTANT DETAIL INFORMATION

Page [5] of [6]

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Pollutant Emitted: PM	2. Total Percent Efficiency of Control:
3. Potential Emissions: 0.44 lb/hour 1.94	4. Synthetically Limited? Yes No
to tons/year	(as applicable): NA
6. Emission Factor: 0.0066 lb/MM Btu Reference: Table 3.1-2a, AP-42 4/00	7. Emissions Method Code:
8.a. Baseline Actual Emissions (if required): NA tons/year	8.b. Baseline 24-month Period: From: To:
9.a. Projected Actual Emissions (if required): NA tons/year	9.b. Projected Monitoring Period: 5 years 10 years
10. Calculation of Emissions:	
(0.0066 lb/MM Btu)(64.50 MM Btu/hr) = 0.443 lb/hr (0.443 lb/hr)(8760 hr/yr)(1 ton/2000 lb) = 1.939 ton/y	
11. Potential, Fugitive, and Actual Emissions Comment:	
Based on vendor's heat input data at ISO conditions with inlet and exhaust losses of 4" of H2O and fuel higher heat value of 1040 Btu/scf	

EMISSIONS UNIT INFORMATION Section [2] of [4]

POLLUTANT DETAIL INFORMATION Page [5] of [6]

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions	Allowable Emissions NA	of

Allowable Emissions NA of			
1.	Basis for Allowable Emissions Code:	Future Effective Date of Allowable Emissions: NA	
3.	Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year	
5.	Method of Compliance:		
6.	Allowable Emissions Comment (Description	n of Operating Method):	
Allowable Emissions Allowable Emissions of			
1.	Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:	
3.	Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour	
5.	Method of Compliance:		
6.	Allowable Emissions Comment (Description	n of Operating Method):	
Allowable Emissions of			
1.	Basis for Allowable Emissions Code:	Future Effective Date of Allowable Emissions:	
3.	Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year	
5.	Method of Compliance:		
6.	Allowable Emissions Comment (Description	n of Operating Method):	

POLLUTANT DETAIL INFORMATION
Page | 6 | of | 6 |

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Pollutant Emitted: HAPS	2. Total Percent Efficient	ency of Control:
3. Potential Emissions:		hetically Limited?
0.07 lb/hour 0.30	tons/year Y	res 🛛 No
	(as applicable): NA	
to tons/year		
6. Emission Factor: 0.001027 lb/MM Btu		7. Emissions
		Method Code:
Reference: AP-42, Table 3.1-2a		3
8.a. Baseline Actual Emissions (if required):	8.b. Baseline 24-month	Period:
NA tons/year	From:	Го:
9.a. Projected Actual Emissions (if required):	9.b. Projected Monitori	ng Period:
NA tons/year	5 years	10 years
10 Calculation of Emissions:		
10. Calculation of Emissions: (0.001027 lb/MM Btu)(64.50 MM Btu/hr) = 0.069 lb/hr (0.069 lb/hr)(8760 hr/yr)(1 ton/2000 lb) = 0.302 ton/y		
11. Potential, Fugitive, and Actual Emissions Comment:		
Based on vendor's heat input data at ISO conditions with inlet and exhaust losses of 4" of H2O and fuel higher heat value of 1040 Btu/scf		

EMISSIONS UNIT INFORMATION Section [2] of [4]

POLLUTANT DETAIL INFORMATION
Page [6] of [6]

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions NA of

	7 THO WASTE EMISSIONS 14	- -
1.	Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions: NA
3.	Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5.	Method of Compliance:	
	Allowable Emissions Comment (Description	
Al	lowable Emissions Allowable Emissions	10
1.	Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3.	Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
	Method of Compliance:	
	Allowable Emissions Comment (Description	
AI	lowable Emissions Allowable Emissions	. 01
1.	Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3.	Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5.	Method of Compliance:	
6.	Allowable Emissions Comment (Description	n of Operating Method):

Section [2]

of [4]

G. VISIBLE EMISSIONS INFORMATION

Complete Subsection G if this emissions unit is or would be subject to a unit-specific visible emissions limitation.

Visible Emissions Limitation: Visible Emissions Limitation 1 of 1 1. Visible Emissions Subtype: 2. Basis for Allowable Opacity: **VE10** X Rule Other 3. Allowable Opacity: Normal Conditions: 10% **Exceptional Conditions:** % Maximum Period of Excess Opacity Allowed: min/hour 2. Method of Compliance: Annual testing with Method 9 3. Visible Emissions Comment: Subject to 62-296-320(4)(b) General Visible Emissions Standards. Visible Emissions Limitation: Visible Emissions Limitation __ of __ Basis for Allowable Opacity: 1. Visible Emissions Subtype: Rule Other 3. Allowable Opacity: Normal Conditions: **% Exceptional Conditions:** % Maximum Period of Excess Opacity Allowed: min/hour 4. Method of Compliance: 5. Visible Emissions Comment:

Section [2]

of [4]

H. CONTINUOUS MONITOR INFORMATION

Complete Subsection H if this emissions unit is or would be subject to continuous monitoring.

Continuous Monitoring System: Continuous Monitor NA of ___

1.	Parameter Code:	2. Pollutant(s):
3.	CMS Requirement:	Rule Other
4.	Monitor Information Manufacturer:	
	Model Number:	Serial Number:
5.	Installation Date:	6. Performance Specification Test Date:
7.	Continuous Monitor Comment:	
<u>Co</u>	ntinuous Monitoring System: Continuous	Monitor of
1.	Parameter Code:	2. Pollutant(s):
3.	CMS Requirement:	Rule Other
4.	Monitor Information Manufacturer:	
	Model Number:	Serial Number:
5.	Installation Date:	6. Performance Specification Test Date:
7.	Continuous Monitor Comment:	

EMISSIONS UNIT INFORMATION Section | 2 | of | 4 |

I. EMISSIONS UNIT ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

1.	Process Flow Diagram: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) Attached, Document ID: Attach. B Previously Submitted, Date
2.	Fuel Analysis or Specification: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) Attached, Document ID: Attach.G Previously Submitted, Date
3.	Detailed Description of Control Equipment: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) Attached, Document ID: NA Previously Submitted, Date
4.	Procedures for Startup and Shutdown: (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
	Attached, Document ID: Previously Submitted, Date Not Applicable (construction application)
_	
5.	Operation and Maintenance Plan: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) Attached, Document ID: Previously Submitted, Date
	Not Applicable
6.	Compliance Demonstration Reports/Records:
	Attached, Document ID:
	Test Date(s)/Pollutant(s) Tested:
	Previously Submitted, Date:
	Test Date(s)/Pollutant(s) Tested:
	To be Submitted, Date (if known):
	Test Date(s)/Pollutant(s) Tested:
	Not Applicable
	Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.
7.	Other Information Required by Rule or Statute:
	Attached, Document ID: Not Applicable

Section | 2| of

I. EMISSIONS UNIT ADDITIONAL INFORMATION (CONTINUED)

Additional Requirements for Air Construction Permit Applications

[4]

1. Control Technology Review and Analysis (Rules 62-212.400(10) and 62-212.500(7),			
F.A.C.; 40 CFR 63.43(d) and (e)): Attached, Document ID: <u>Narr. Sec. 3.0</u> Not Applicable			
2. Good Engineering Practice Stack Height Analysis (Rules 62-212.400(4)(d) and 62-			
212.500(4)(f), F.A.C.): Attached, Document ID: Not Applicable			
3. Description of Stack Sampling Facilities: (Required for proposed new stack sampling facilities only)			
Attached, Document ID: <u>See Note Below</u> Not Applicable			
Additional Requirements for Title V Air Operation Permit Applications			
Identification of Applicable Requirements: Attached, Document ID: NA			
Compliance Assurance Monitoring: Attached, Document ID:			
3. Alternative Methods of Operation: Attached, Document ID: Not Applicable			
4. Alternative Modes of Operation (Emissions Trading): Attached, Document ID: Not Applicable			
Additional Requirements Comment			
Supplemental information is provided in the narrative description accompanying these forms.			
Specifications for the engine silencers/stacks have not been completed at this time. Final specifications will comply with USEPA and FDEP regulatory requirements.			

Section [3]

of [4]

A. GENERAL EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Emissions Unit Classification

	1.	Regulated or Unregulated Emissions Unit? (Check one, if applying for an initial, revised or renewal Title V air operation permit. Skip this item if applying for an air construction permit or FESOP only.) NA				
		The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.				
			unit addressed in this E	missions Unit Informa	tion Section is an	
ĺ		unregulated er	missions unit.			
_	En	nissions Unit Descr	iption and Status			
	1.	Type of Emissions	Unit Addressed in this	Section: (Check one)		
		single process	s Unit Information Section or production unit, or act which has at least one d	tivity, which produces	one or more air	
		group of proce	s Unit Information Sections or production units are (stack or vent) but may	nd activities which has	at least one definable	
1					le emissions unit, one or e fugitive emissions only.	
		1. Description of	Emissions Unit Address	sed in this Section:		
	em		s fired, spark ignition, 4 engine, FGT Engine No.	•	ernal combustion	
	3.		entification Number: 00			
r	4.	Emissions Unit	5. Commence	6. Initial Startup	7. Emissions Unit	
		Status Code:	Construction	Date:	Major Group	
		0	Date:	NT A	SIC Code:	
L		C	NA NA	NA	49	
1	8.		applicability: (Check all	that apply)		
		Acid Rain Uni	t			
		CAIR Unit				
		Hg Budget Un	it			
	9.	Package Unit:		34 1 1 37 1	0.000	
L	Manufacturer: Generac Model Number: SG300					
L	10. Generator Nameplate Rating: 0.3 MW					
	11. Emissions Unit Comment:					
	Fuel will be exclusively natural gas from the FGT's gas pipeline.					
\perp						

DEP Form No. 62-210.900(1) - Form

Effective: 3/16/08

Section	[3]	ot	[4]	

1. Control Equipment/Method Description:
2. Control Device or Method Code:
Emissions Unit Control Equipment/Method: Control of
1. Control Equipment/Method Description:
2. Control Device or Method Code:
Emissions Unit Control Equipment/Method: Control of
1. Control Equipment/Method Description:
1. Control Equipment/Method Description:
1. Control Equipment/Method Description:
Control Equipment/Method Description: Control Device or Method Code:
2. Control Device or Method Code:
2. Control Device or Method Code: Emissions Unit Control Equipment/Method: Control of
2. Control Device or Method Code: Emissions Unit Control Equipment/Method: Control of

DEP Form No. 62-210.900(1) – Form Effective: 3/16/08

A-59

Section [3] of

B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

[4]

1. Maximum Process	or Throughput Rate: NA	
2. Maximum Product	on Rate: NA	
3. Maximum Heat Inp	out Rate: 4.26 million Btu/hr	
4. Maximum Incinera	tion Rate: pounds/hr NA	_
	tons/day	
5. Requested Maximu	m Operating Schedule:	
	hours/day	days/week
	weeks/year	100 hours/year
6. Operating Capacity	/Schedule Comment:	
	SEPA defined emergency generator usage (40 CFR 60.4243(d)). This does not in	. ,

Section [3]

of [4]

C. EMISSION POINT (STACK/VENT) INFORMATION

(Optional for unregulated emissions units.)

Emission Point Description and Type

1.	Identification of Point on Flow Diagram: GEN01	Plot Plan or	2. Emission Point	Гуре Code: 1
3.	Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking:			for VE Tracking:
	NA			
4.	ID Numbers or Descriptio	ns of Emission Ur	nits with this Emission	n Point in Common:
	NA			
5.	Discharge Type Code: V	6. Stack Height 7.0 Feet		7. Exit Diameter: 0.33 feet
8.	Exit Temperature: 1490 °F	9. Actual Volum 4335 acfm	netric Flow Rate:	10. Water Vapor: NA %
11.	Maximum Dry Standard F NA dscfm	low Rate:	12. Nonstack Emissi NA feet	on Point Height:
13.	Emission Point UTM Coo Zone: 17 East (km):	rdinates 494.3	14. Emission Point Latitude/Longitude Latitude (DD/MM/SS)	
	North (km)	: 3012.4	Longitude (DD/I	MM/SS)
15.	Emission Point Comment:			

Section [3]

of [4]

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 1

1. Segment Description (Prod	Segment Description (Process/Fuel Type):					
Natural gas fired 4-stroke	Natural gas fired 4-stroke, rich-burn engine driving an emergency generator.					
2. Source Classification Code	e (SCC):	3. SCC Units:				
2-02-002-53		m:	illion cubic feet burned			
4. Maximum Hourly Rate:	5. Maximum A	Annual Rate:	6. Estimated Annual Activity			
0.0041	0.4	41	Factor: NA			
7. Maximum % Sulfur:	8. Maximum 9	% Ash:	9. Million Btu per SCC Unit:			
NA	N	Α	1040			
10. Segment Comment:						
Annual usage based on 10	0 hours per year	operation.				
Segment Description and Rate: Segment _ of _						
1. Segment Description (Prod	cess/Fuel Type):					
•						

1. Segment Description (Pro	cess/Fuel Type):		
2. Source Classification Cod	e (SCC):	3. SCC Units	s:
4. Maximum Hourly Rate:	5. Maximum	Annual Rate:	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum	% Ash:	9. Million Btu per SCC Unit:
10. Segment Comment:			

Section [3] **of** [4]

E. EMISSIONS UNIT POLLUTANTS

List of Pollutants Emitted by Emissions Unit

1. Pollutant Emitted	Primary Control Device Code	Secondary Control Device Code	4. Pollutant Regulatory Code
VOC	203		EL
SO ₂			NS
PM			NS
NO _X	203		EL
СО	203		EL
PM ₁₀			NS
НАР			NS

Section [3] of [4]

POLLUTANT DETAIL INFORMATION Page | 1 | of | 6 |

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Pollutant Emitted: NOX	2. Total Percent Efficients 5.7	ency of Control:	
3. Potential Emissions: 2.00 lb/hour 1.00		netically Limited? Yes No	
to tons/year	(as applicable): NA		
6. Emission Factor: 2.00 g/hp-hr at 5.7% cont Reference: Vendor data	rol	7. Emissions Method Code:	
Reference: Vendor data		5	
8.a. Baseline Actual Emissions (if required):	8.b. Baseline 24-month	Period:	
NA tons/year	From:	Го:	
9.a. Projected Actual Emissions (if required):	9.b. Projected Monitori	ng Period:	
NA tons/year	5 years	10 years	
NA tons/year 5 years 10 years 10. Calculation of Emissions: ((2.00 g/hp-hr)(454 bhp)(11b/454 g) = 2.00 lb/hr (2.00 lb/hr)(100 hr/yr)(1 ton/2000 lb) = 0.10 ton/yr			
11. Potential, Fugitive, and Actual Emissions Comment:			
Calculations based on emergency generator usage of 100 hours per year and minimum control efficiency.			

DEP Form No. 62-210.900(1) – Form Effective: 3/16/08

A-64

POLLUTANT DETAIL INFORMATION
Page [1] of [6]

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions 1 of 1					
	is for Allowable Emissions Code: LE	2.	Future Effective Date of Allowable Emissions: NA		
	owable Emissions and Units: O g/hp-hr.	4.	Equivalent Allowable Emissions: 2.00 lb/hour 0.10 tons/year		
	thod of Compliance: onitor hours of operation				
6. Allo	owable Emissions Comment (Description	of	Operating Method):		
60.4	4230 Table Himits NOX emissions to 2 g	g/hhp	o-hr.		
Allowa	ble Emissions Allowable Emissions	of_			
1. Bas	is for Allowable Emissions Code:	2.	Future Effective Date of Allowable Emissions:		
3. Allo	owable Emissions and Units:	4.	Equivalent Allowable Emissions: lb/hour tons/year		
5. Me	thod of Compliance:				
6. Allo	owable Emissions Comment (Description	of	Operating Method):		
Allowa	ble Emissions Allowable Emissions	of_			
1. Bas	is for Allowable Emissions Code:	2.	Future Effective Date of Allowable Emissions:		
3. Allo	owable Emissions and Units:	4.	Equivalent Allowable Emissions: lb/hour tons/year		
5. Me	thod of Compliance:	•			
6. Alk	owable Emissions Comment (Description	of	Operating Method):		

EMISSIONS UNIT INFORMATION Section | 3 | of | 4 |

POLLUTANT DETAIL INFORMATION
Page | 2 | of | 6 |

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Pollutant Emitted: CO	2. Total Percent Effici 96.6	ency of Control:	
3. Potential Emissions: 4.0 lb/hour 0.40			
to tons/year	(as applicable): NA		
6. Emission Factor: 4.0 g/hp-hr at 96.6% cont Reference: Vendor data	rol	7. Emissions Method Code: 5	
8.a. Baseline Actual Emissions (if required): NA tons/year		Го:	
9.a. Projected Actual Emissions (if required): NA tons/year	9.b. Projected Monitor 5 years	ing Period: 10 years	
10. Calculation of Emissions: (4.00 g/hp-hr)(454 bhp)(1lb/454 g) = 4.00 lb/hr (4.00 lb/hr)(100 hr/yr)(1 ton/2000 lb) = 0.40 ton/yr			
11. Potential, Fugitive, and Actual Emissions Comment:			
Calculations based on emergency generator usage of 100 hours per year and minimum control efficiency.			

POLLUTANT DETAIL INFORMATION
Page [2] of [6]

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1			
Basis for Allowable Emissions Code: RULE	2. Future Effective Date of Allowable Emissions: NA		
3. Allowable Emissions and Units: 4.00 g/hp-hr.	4. Equivalent Allowable Emissions: 4.00 lb/hour 0.20 tons/year		
5. Method of Compliance: Monitor hours of operation			
6. Allowable Emissions Comment (Description	of Operating Method):		
60.4230 Table 1 limits CO emissions to 4 g/h	nhp-hr.		
Allowable Emissions Allowable Emissions	of		
Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:		
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year		
5. Method of Compliance:			
6. Allowable Emissions Comment (Description of Operating Method):			
Allowable Emissions Allowable Emissions	of		
Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:		
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year		
5. Method of Compliance:			
6. Allowable Emissions Comment (Description	of Operating Method):		

POLLUTANT DETAIL INFORMATION
Page [3] of [6]

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Pollutant Emitted: VOC	2. Total Percent Efficie 0	ency of Control:	
3. Potential Emissions: 0.29 lb/hour 0.01		netically Limited? Yes No	
5. Range of Estimated Fugitive Emissions to tons/year	(as applicable): NA		
6. Emission Factor: 2.91 g/hp-hr THC Reference: Vendor data		7. Emissions Method Code: 5	
8.a. Baseline Actual Emissions (if required):	8.b. Baseline 24-month		
NA tons/year	From: T	o:	
9.a. Projected Actual Emissions (if required):	9.b. Projected Monitori	ng Period:	
NA tons/year	5 years	10 years	
10. Calculation of Emissions: Assume VOC 10% of THC = 0.29 g/hp-hr (0.29 g/hp-hr)(454 bhp)(1 lb/453.6 g) = 0.29 lb/hr			
(0.29 lb/hr)(100 hr/yr)(1 ton/2000 lb) = 0.01			
11. Potential, Fugitive, and Actual Emissions Co	omment:		
Calculations based on emergency generator usage of 100 hours per year.			

Section [3] of [4]

POLLUTANT DETAIL INFORMATION Page [3] of [6]

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -**ALLOWABLE EMISSIONS**

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions 1 of 1				
1.	Basis for Allowable Emissions Code: RULE	2.	Future Effective Date Emissions: NA	e of Allowable
3.	Allowable Emissions and Units: 0.29 g/hhp-hr.	4.	Equivalent Allowable 0.29 lb/hour	Emissions: 0.01 tons/year
5.	5. Method of Compliance: Monitor hours of operation			
6. Allowable Emissions Comment (Description of Operating Method): 60.4230 Table Ulimits VOC emissions to 1 a/bbp br				
60.4230 Table Himits VOC emissions to 1 g/hhp-hr.				

Allowable Emissions of				
Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:			
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour			
5. Method of Compliance:				
6. Allowable Emissions Comment (Description of Operating Method):				
Allowable Emissions of				
Basis for Allowable Emissions Code:	Future Effective Date of Allowable Emissions:			
2 411 11 5 : : 111 6				

l.	Basis for Allowable Emissions Code:	2.	Future Effective Date Emissions:	e of Allowable
3.	Allowable Emissions and Units:	4.	Equivalent Allowabl	e Emissions:
			lb/hour	tons/year
5.	Method of Compliance:			
6.	Allowable Emissions Comment (Description	of (perating Method):	

POLLUTANT DETAIL INFORMATION
Page | 4 | of | 6 |

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: SO2	2. Total Percent Efficiency of Control:	
3. Potential Emissions: 0.117 lb/hour 0.006	4. Synthetically Limited? Stons/year Yes No	
to tons/year	(as applicable): NA	
6. Emission Factor: 10 grains / 100 scf Reference: FERC limit	7. Emissions Method Code: 2	
8.a. Baseline Actual Emissions (if required): NA tons/year	8.b. Baseline 24-month Period: From: To:	
9.a. Projected Actual Emissions (if required): NA tons/year	9.b. Projected Monitoring Period: 5 years 10 years	
10. Calculation of Emissions: (10 gr S/100 scf)(4100 scf/hr)(1 lb/7000 gr) = 0.059 lb S/hr (0.059 lb S/hr)(2 lb SO2/lb S) = 0.117 lb SO2/hr (0.117 lb SO2/hr)(100 hr/yr)(1 ton/2000 lb) = 0.006 ton/yr		
11. Potential, Fugitive, and Actual Emissions Comment:		
Calculations based on emergency generator usage of 100 hours per year.		

POLLUTANT DETAIL INFORMATION Page | 4 | of [6]

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -**ALLOWABLE EMISSIONS**

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions	Allowable	Emissions	NA	of
----------------------------	-----------	------------------	----	----

<u> </u>	iowable Emissions Allowable Emissions N	<u>n</u> 01		
1.	Basis for Allowable Emissions Code:	Future Effective Date of Allowable Emissions: NA		
3.	Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year		
5.	Method of Compliance:			
6. Allowable Emissions Comment (Description of Operating Method):				
$\mathbf{A}\mathbf{I}$	lowable Emissions Allowable Emissions	of		
1.	Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:		
3.	Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year		
5.	5. Method of Compliance:			
6. Allowable Emissions Comment (Description of Operating Method):				
Al	lowable Emissions Allowable Emissions	of		
1.	Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:		
3.	Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year		
5.	Method of Compliance:			
6.	Allowable Emissions Comment (Description	n of Operating Method):		

DEP Form No. 62-210.900(1) - Form Effective: 3/16/08

A-71

POLLUTANT DETAIL INFORMATION
Page | 5 | of | 6 |

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

4.50

1. Pollutant Emitted: PM	2. Total Percent Efficiency of Control:		
3. Potential Emissions:	4. Synthetically Limited?		
0.083 lb/hour 0.004	tons/year Yes No		
	(as applicable): NA		
to tons/year			
6. Emission Factor: 0.01941 lb/MM Btu	7. Emissions		
	Method Code:		
Reference: Table 3.2-3, AP-42 7/00	3		
8.a. Baseline Actual Emissions (if required):	8.b. Baseline 24-month Period:		
NA tons/year	From: To:		
9.a. Projected Actual Emissions (if required):	9.b. Projected Monitoring Period:		
NA tons/year	5 years 10 years		
10. Calculation of Emissions:			
10. Calculation of Emissions: (0.01941 lb/MM Btu)(4.26 MM Btu/hr) = 0.083 lb/hr (0.083 lb/hr)(100 hr/yr)(1 ton/2000 lb) = 0.004 ton/y			
11. Potential, Fugitive, and Actual Emissions Co	omment:		
Calculations based on emergency generator usage of 100 hours per year.			

POLLUTANT DETAIL INFORMATION
Page [5] of [6]

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable	Fmissions	Allowable Emissions	NA	of
Anowable	CHIISSIUHS	Anowable Linissions	INA	Οī

- 11	iowable Ellissions Allowable Ellissions INA	<u> </u>		
1.	Basis for Allowable Emissions Code:	Future Effective Date of Allowable Emissions: NA		
3.	Allowable Emissions and Units:	4. Equivalent Allowable Emissions:		
		lb/hour tons/year		
5.	Method of Compliance:			
6. Allowable Emissions Comment (Description of Operating Method):				
<u>Al</u>	lowable Emissions Allowable Emissions	of		
1.	Basis for Allowable Emissions Code:	Future Effective Date of Allowable Emissions:		
3.	Allowable Emissions and Units:	4. Equivalent Allowable Emissions:		
		lb/hour tons/year		
5.	5. Method of Compliance:			
6. Allowable Emissions Comment (Description of Operating Method):				
Al	lowable Emissions Allowable Emissions	of		
1.	Basis for Allowable Emissions Code:	Future Effective Date of Allowable Emissions:		
3.	Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year		
5. Method of Compliance:				
6.	Allowable Emissions Comment (Description	of Operating Method):		

POLLUTANT DETAIL INFORMATION
Page | 6 | of | 6 |

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Pollutant Emitted: HAPS	2. Total Percent Efficiency of Control:
3. Potential Emissions: 0.10 lb/hour 0.005	4. Synthetically Limited? Stons/year Yes No
to tons/year	(as applicable): NA
6. Emission Factor: 0.0234 lb/MM Btu Reference: AP-42, Table 3.2-3	7. Emissions Method Code: 3
8.a. Baseline Actual Emissions (if required): NA tons/year	8.b. Baseline 24-month Period: From: To:
9.a. Projected Actual Emissions (if required): NA tons/year	9.b. Projected Monitoring Period: 5 years 10 years
10. Calculation of Emissions: (0.0234 lb/MM Btu)(4.26 MM Btu/hr) = 0.1 (0.10 lb/hr)(8760 hr/yr)(1 ton/2000 lb) = 0.0	05 ton/y
11. Potential, Fugitive, and Actual Emissions Co Calculations based on emergency generator usage	

EMISSIONS UNIT INFORMATION Section | 3 of | 4 | Page

POLLUTANT DETAIL INFORMATION [6] of [6]

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions NA of

	Thowave Emissions 11				
1.	Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions: NA			
3.	Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year			
5.	Method of Compliance:				
	Allowable Emissions Comment (Description				
<u>A</u> I	lowable Emissions Allowable Emissions	of			
1.	Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:			
3.	Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year			
	Method of Compliance:				
6. Allowable Emissions Comment (Description of Operating Method):					
Al	lowable Emissions Allowable Emissions	of			
1.	Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:			
3.	Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour			
5.	Method of Compliance:				
6.	Allowable Emissions Comment (Description	n of Operating Method):			

Section [3]

of [4]

G. VISIBLE EMISSIONS INFORMATION

Complete Subsection G if this emissions unit is or would be subject to a unit-specific visible emissions limitation.

Visible Emissions Limitation: Visible Emissions Limitation NA of

<u> </u>	· lotore Emission	, 115 2 111 0 1	
1.	Visible Emissions Subtype:	2. Basis for Allowable C Rule	pacity: Other
3.	Allowable Opacity:		<u>_</u>
		ceptional Conditions:	%
	Maximum Period of Excess Opacity Allowe	d:	min/hour
	2. Method of Compliance:		
	•		•
	3. Visible Emissions Comment:		
Vi	sible Emissions Limitation: Visible Emission	ons Limitation of	
1.	Visible Emissions Subtype:	2. Basis for Allowable C	Ppacity:
		Rule	Other
3.	Allowable Opacity:		
	• • •	ceptional Conditions:	%
	Maximum Period of Excess Opacity Allowe	d:	min/hour
4.	Method of Compliance:		
			-
5.	Visible Emissions Comment:	•	

Section [3]

of | 4|

H. CONTINUOUS MONITOR INFORMATION

Complete Subsection H if this emissions unit is or would be subject to continuous monitoring.

Continuous Monitoring System: Continuous Monitor NA of

1.	Parameter Code:	2.	. Pollutant(s):		
3.	CMS Requirement:		Rule	Other	
4.	Monitor Information Manufacturer: Model Number:		Somial Niv	umb ou	
	Installation Date:	· ·	Serial Number: 6. Performance Specification Test Date:		
		0.	Performance	Specification Test Date:	
7.	Continuous Monitor Comment:				
			•		
Co	ntinuous Monitoring System: Continuous	Mor	nitor of	_	
1.	Parameter Code:		2. Pollutante	(s):	
3.	CMS Requirement:		Rule	Other	
4.	Monitor Information Manufacturer:				
	Model Number:		Serial Nu	mber:	
5.	Installation Date:		6. Performa	nce Specification Test Date:	
7.	Continuous Monitor Comment:				

Section [3] of

I. EMISSIONS UNIT ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

1.	Process Flow Diagram: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) Attached, Document ID: Attached , Document ID: Attached , Document.new.org/attached
2.	Fuel Analysis or Specification: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) Attached, Document ID: Attach. G Previously Submitted, Date
3.	Detailed Description of Control Equipment: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) Attached, Document ID: <u>See note below</u> Previously Submitted, Date
4.	Procedures for Startup and Shutdown: (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
	Attached, Document ID: Previously Submitted, Date Not Applicable (construction application)
5.	Operation and Maintenance Plan: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) Attached, Document ID: Previously Submitted, Date Not Applicable
6.	Compliance Demonstration Reports/Records: Attached, Document ID:
	Test Date(s)/Pollutant(s) Tested:
	Previously Submitted, Date: Test Date(s)/Pollutant(s) Tested:
	To be Submitted, Date (if known): Test Date(s)/Pollutant(s) Tested:
	Not Applicable
	Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.
7.	Other Information Required by Rule or Statute: Attached, Document ID: Not Applicable

Section [3]

of [4]

I. EMISSIONS UNIT ADDITIONAL INFORMATION (CONTINUED)

Additional Requirements for Air Construction Permit Applications

1. Control Technology Review and Analysis (Rules 62-212.400(10) and 62-212.500(7),					
F.A.C.; 40 CFR 63.43(d) and (e)):					
Attached, Document 1D: <u>Narr. Sec. 3.0</u> Not Applicable					
2. Good Engineering Practice Stack Height Analysis (Rules 62-212.400(4)(d) and 62-					
212.500(4)(f), F.A.C.):					
Attached, Document ID: Not Applicable					
3. Description of Stack Sampling Facilities: (Required for proposed new stack sampling facilities only)					
Attached, Document ID: <u>See note below</u> Not Applicable					
Additional Requirements for Title V Air Operation Permit Applications					
1. Identification of Applicable Requirements:					
Attached, Document ID: <u>NA</u>					
2. Compliance Assurance Monitoring:					
Attached, Document ID: Not Applicable					
3. Alternative Methods of Operation:					
Attached, Document ID: Not Applicable					
4. Alternative Modes of Operation (Emissions Trading):					
Attached, Document ID: Not Applicable					
Additional Requirements Comment					
Supplemental information is provided in the narrative description accompanying these forms.					
The manufacturer has not completed design specifications and has not provided final emission rates at this time. Emissions will comply with applicable 40 CFR Subpart JJJJ requirements.					
Specifications for the sampling facilities have not been completed at this time. Final specifications will comply with USEPA and FDEP regulatory requirements.					

Section [4]

of [4]

A. GENERAL EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Emissions Unit Classification

. Regulated or Unregulated Emissions Unit? (Check one, if applying for an initial, revised or renewal Title V air operation permit. Skip this item if applying for an air construction permit or FESOP only.) NA					
The emissions unit add emissions unit.	The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.				
The emissions unit add	ressed in this Emis	sions Unit Informati	on Section is an		
unregulated emissions	unit.				
Emissions Unit Description a	nd Status	_			
1. Type of Emissions Unit Ad	dressed in this Sec	tion: (Check one)			
This Emissions Unit Insingle process or produce pollutants and which ha	ction unit, or activit	ty, which produces o	ne or more air		
This Emissions Unit Ingroup of process or procemission point (stack or	duction units and a	ctivities which has at	least one definable		
This Emissions Unit Inmore process or product			-		
Description of Emission	ns Unit Addressed	in this Section:			
454 bhp natural gas fired, spark ignition, 4-stroke, rich-burn, internal combustion emergency generator engine, FGT Engine No. GEN02					
			nal combustion		
emergency generator engine, Formula 3. Emissions Unit Identification	GT Engine No. GE		nal combustion		
 emergency generator engine, Fe 3. Emissions Unit Identification 4. Emissions Unit 5. Cor 	GT Engine No. GE on Number: 004 mmence 6.	Initial Startup	7. Emissions Unit		
 emergency generator engine, Fe 3. Emissions Unit Identification 4. Emissions Unit Status Code: Cor 	GT Engine No. GE on Number: 004 mmence 6.	N02	7. Emissions Unit Major Group		
 emergency generator engine, Fe 3. Emissions Unit Identification 4. Emissions Unit 5. Cor 	GT Engine No. GE on Number: 004 mmence 6.	Initial Startup	7. Emissions Unit		
emergency generator engine, Formula 2. Emissions Unit Identification 4. Emissions Unit 5. Corn Status Code: Corn Dat	on Number: 004 mmence 6. nstruction te: NA	Initial Startup Date: NA	7. Emissions Unit Major Group SIC Code:		
emergency generator engine, Formula 3. Emissions Unit Identification 4. Emissions Unit Status Code: Compatible C	on Number: 004 mmence 6. nstruction te: NA	Initial Startup Date: NA	7. Emissions Unit Major Group SIC Code:		
emergency generator engine, Formula 3. Emissions Unit Identification 4. Emissions Unit Status Code: Compart C C C Compart C C C C C C C C C C C C C C C C C C C	on Number: 004 mmence 6. nstruction te: NA	Initial Startup Date: NA	7. Emissions Unit Major Group SIC Code:		
emergency generator engine, Formula 3. Emissions Unit Identification 4. Emissions Unit Status Code: Compatible C Status Code: Compatible C Acid Rain Unit	on Number: 004 mmence 6. nstruction te: NA	Initial Startup Date: NA	7. Emissions Unit Major Group SIC Code:		
emergency generator engine, Fe 3. Emissions Unit Identification 4. Emissions Unit	GT Engine No. GE on Number: 004 mmence 6. nstruction re: NA lity: (Check all that	Initial Startup Date: NA	7. Emissions Unit Major Group SIC Code: 49		
emergency generator engine, Fe 3. Emissions Unit Identification 4. Emissions Unit 5. Cornormod 6. Cornormod 6	GT Engine No. GE on Number: 004 mmence 6. nstruction re: NA lity: (Check all that	Initial Startup Date: NA It apply)	7. Emissions Unit Major Group SIC Code: 49		
emergency generator engine, Fe 3. Emissions Unit Identification 4. Emissions Unit	GT Engine No. GE on Number: 004 mmence 6. nstruction re: NA lity: (Check all that	Initial Startup Date: NA It apply)	7. Emissions Unit Major Group SIC Code: 49		

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Effective: 3/16/08

Emissions Unit Control Equipment/Method: Control NA of

1. Control Equipment/Method Description:
2. Control Device or Method Code:
Emissions Unit Control Equipment/Method: Control of
1. Control Equipment/Method Description:
2. Control Device or Method Code:
Emissions Unit Control Equipment/Method: Control of
1. Control Equipment/Method Description:
2. Control Device or Method Code:
Emissions Unit Control Equipment/Method: Control of
1. Control Equipment/Method Description:
2. Control Device or Method Code:

Section [4]

of [4]

B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

Maximum Process or Throughput Rate: NA					
2. Maximum Production Rate: NA					
3. Maximum Heat Input Rate: 4.26 million Btu/hr					
4. Maximum Incineration Rate: pounds/hr NA					
tons/day					
5. Requested Maximum Operating Schedule:					
hours/day	days/week				
weeks/year	100 hours/year				
6. Operating Capacity/Schedule Comment:					
Schedule is based on USEPA defined emergency generator usage maintenance and testing (40 CFR 60.4243(d)). This does not income					

Section [4]

of [4]

C. EMISSION POINT (STACK/VENT) INFORMATION

(Optional for unregulated emissions units.)

Emission Point Description and Type

1.	Identification of Point on Flow Diagram: GEN02	Plot Plan or	2. Emission Point	Гуре Code: 1	
3.	Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking:				
	NA				
4.	ID Numbers or Descriptio	ns of Emission Ui	nits with this Emission	n Point in Common:	
	NA				
5.	Discharge Type Code: V	6. Stack Height 7.0 Feet	::	7. Exit Diameter: 0.33 feet	
8.	Exit Temperature: 1490 °F	9. Actual Volum 4335 acfm	metric Flow Rate:	10. Water Vapor: NA %	
11.	Maximum Dry Standard F NA dscfm	low Rate:	12. Nonstack Emission Point Height: NA feet		
13.	Emission Point UTM Coo Zone: 17 East (km):	rdinates 494.3	14. Emission Point I Latitude (DD/M	Latitude/Longitude M/SS)	
	North (km)	: 3012.4	Longitude (DD/	MM/SS)	
15.	Emission Point Comment:				

Section [4]

of [4]

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 1

<u>50</u>	Segment Description and Nate: Segment 1 of 1						
1.	. Segment Description (Process/Fuel Type):						
Natural gas fired 4-stroke, rich-burn engine driving an emergency generator.							
2.	2. Source Classification Code (SCC): 2-02-002-53 3. SCC Units: million cubic feet burned						
	2-02-002-33		11				
4.	Maximum Hourly Rate: 0.0041	5. Maximum Annual Rate: 0.41		6. Estimated Annual Activity Factor: NA			
7.	Maximum % Sulfur: NA	8. Maximum % Ash: NA		9. Million Btu per SCC Unit: 1040			
10. Segment Comment: Annual usage based on 100 hours per year operation.							

Segment Description and Rate: Segment _ of _

1. Segment Des	cription (Proces	s/Fuel Type):			
2. Source Classi	ification Code (S	SCC):	3. SCC Units:		
4. Maximum Ho	ourly Rate: 5	. Maximum A	Annual Rate:	6.	Estimated Annual Activity Factor:
7. Maximum %	Sulfur: 8	. Maximum ^c	% Ash:	9.	Million Btu per SCC Unit:
10. Segment Con	nment:				

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Section [4] of

of [4]

E. EMISSIONS UNIT POLLUTANTS

List of Pollutants Emitted by Emissions Unit

1. Pollutant Emitted	Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
VOC			EL
SO ₂			NS
PM			NS
NO _X			EL
СО			EL
PM ₁₀			NS
HAPs			NS
	-		
	_		
		_	
		_	

DEP Form No. 62-210.900(1) - Form -

Effective: 3/16/08

POLLUTANT DETAIL INFORMATION
Page [1] of [6]

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: NOX	Total Percent Efficiency of Control: 5.7				
3. Potential Emissions: 2.00 lb/hour 0.20	· · · · · · · · · · · · · · · · · · ·	netically Limited? 'es 🛛 No			
5. Range of Estimated Fugitive to tons/year Emissions (as applicable): NA					
6. Emission Factor: 2.00 g/hp-hr at 5.7% cont Reference: Vendor data	rol	7. Emissions Method Code: 5			
8.a. Baseline Actual Emissions (if required): NA tons/year	8.b. Baseline 24-month From:	_			
9.a. Projected Actual Emissions (if required): NA tons/year	ng Period: 10 years				
10. Calculation of Emissions: (2.00 g/hp-hr)(454 bhp)(1 lb/454 g) = 2.00 lb/hr (2.00 lb/hr)(100 hr/yr)(1 ton/2000 lb) = 0.10 ton/yr					
11. Potential, Fugitive, and Actual Emissions Comment:					
Calculations based on emergency generator usage of 100 hours per year and minimum control efficiency.					

POLLUTANT DETAIL INFORMATION Page [1] of [6]

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable			
RULE	Emissions: NA			
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions:			
2.0 g/hp-hr.	2.00 lb/hour 0.10 tons/year			
5. Method of Compliance:	<u> </u>			
Monitor hours of operation				
Monitor hours of operation				
6. Allowable Emissions Comment (Description	6. Allowable Emissions Comment (Description of Operating Method):			
60.4230 Table 1 limits NOX emissions to 2 g	g/hhp-hr.			
Allowable Emissions Allowable Emissions	of			
1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable			
	Emissions:			
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions:			
5. Allowable Emissions and Onits.	lb/hour tons/year			
	tons/year			
5. Method of Compliance:				
6. Allowable Emissions Comment (Description	of Operating Method):			
Allowable Emissions	of			
Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable			
	Emissions:			
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions:			
5. Milowable Emissions and Omes.	lb/hour tons/year			
5 Mala 1 (C) 11	tons/year			
5. Method of Compliance:				
6. Allowable Emissions Comment (Description of Operating Method):				

POLLUTANT DETAIL INFORMATION Page [2] of [6]

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Pollutant Emitted: CO	2. Total Percent Efficie 96.6	ency of Control:			
3. Potential Emissions: 4.00 lb/hour 0.20	b/hour 0.20 tons/year 4. Synth				
5. Range of Estimated Fugitive to tons/year Emissions (as applicable): NA					
6. Emission Factor: 4.0 g/hp-hr at 96.6% cont	7. Emissions Method Code:				
Reference: Vendor data		5			
8.a. Baseline Actual Emissions (if required):	8.b. Baseline 24-month	Period:			
NA tons/year	From: To:				
9.a. Projected Actual Emissions (if required):	9.b. Projected Monitoring Period:				
NA tons/year	5 years 10 years				
10. Calculation of Emissions:					
4.00 g/hp-hr)(454 bhp)(1lb/454 g) = 4.00 lb/hr (4.00 lb/hr)(100 hr/yr)(1 ton/2000 lb) = 0.40 ton/yr					
11. Potential, Fugitive, and Actual Emissions Comment:					
Calculations based on emergency generator usage of 100 hours per year and minimum control efficiency.					

A-88

Allowable Emissions Allowable Emissions 1 of 1

POLLUTANT DETAIL INFORMATION Page | 2 | of | 6 |

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

1.	Basis for Allowable Emissions Code: RULE	Future Effective Date of Allowable Emissions: NA	
3.	Allowable Emissions and Units: 4.00 g/hp-hr.	4.	Equivalent Allowable Emissions: 4.00 lb/hour 0.20 tons/year
5.	Method of Compliance: Monitor hours of operation		
6.	Allowable Emissions Comment (Description	of C	Operating Method):
	60.4230 Table 1 limits CO emissions to 4 g/h	hp-h	r.
<u>AI</u>	lowable Emissions Allowable Emissions	of_	<u>.</u>
1.	Basis for Allowable Emissions Code:	2.	Future Effective Date of Allowable Emissions:
3.	Allowable Emissions and Units:	4.	Equivalent Allowable Emissions: lb/hour tons/year
5.	Method of Compliance:		
	All II F : C C C	C	
6.	Allowable Emissions Comment (Description	01(operating Method):
Al	lowable Emissions Allowable Emissions	of_	_
1.	Basis for Allowable Emissions Code:	2.	Future Effective Date of Allowable Emissions:
3.	Allowable Emissions and Units:	4.	Equivalent Allowable Emissions:

DEP Form No. 62-210.900(1) – Form Effective: 3/16/08

5. Method of Compliance:

6. Allowable Emissions Comment (Description of Operating Method):

lb/hour

tons/year

POLLUTANT DETAIL INFORMATION
Page | 3 | of | 6 |

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Pollutant Emitted: VOC	2. Total Percent Efficiency of Control:				
3. Potential Emissions: 0.29 lb/hour 0.01	ı <u>–</u>	netically Limited? 'es No			
5. Range of Estimated Fugitive Emissions to tons/year	(as applicable): NA				
6. Emission Factor: 2.91 g/hp-hr THC		7. Emissions Method Code:			
Reference: Vendor data		5			
8.a. Baseline Actual Emissions (if required):	8.b. Baseline 24-month	Period:			
NA tons/year	From:	To:			
9.a. Projected Actual Emissions (if required):	9.b. Projected Monitori	ng Period:			
NA tons/year	5 years	10 years			
10. Calculation of Emissions:					
Assume VOC 10% of THC = 0.29 g/hp-hr (0.29 g/hp-hr)(454 bhp)(1 lb/453.6 g) = 0.29 lb/hr (0.29 lb/hr)(100 hr/yr)(1 ton/2000 lb) = 0.01 ton/yr					
11. Potential, Fugitive, and Actual Emissions Comment:					
Calculations based on emergency generator usage of 100 hours per year.					

DEP Form No. 62-210.900(1) – Form Effective: 3/16/08

A-90

POLLUTANT DETAIL INFORMATION Page | 3 | of | 6 |

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions 1 of 1

1.	Basis for Allowable Emissions Code: RULE	Future Effective Date of Allowable Emissions: NA		
3.	Allowable Emissions and Units: 0.29 g/hhp-hr.			missions: 0.01 tons/year
5.	Method of Compliance: Monitor hours of operation			
6.	Allowable Emissions Comment (Description	of	Operating Method):	
	60.4230 Table 1 limits VOC emissions to 1 g	/hhp	-hr.	
Al	lowable Emissions Allowable Emissions	of_		
1.	Basis for Allowable Emissions Code:	2.	Future Effective Date of Emissions:	fAllowable
3.	Allowable Emissions and Units:	4.	Equivalent Allowable E lb/hour	missions: tons/year
5.	Method of Compliance:	•		
6.	6. Allowable Emissions Comment (Description of Operating Method):			
Al	lowable Emissions Allowable Emissions	of_	_	
1.	Basis for Allowable Emissions Code:	2.	Future Effective Date of Emissions:	f Allowable
3.	Allowable Emissions and Units:	4.	Equivalent Allowable E lb/hour	missions: tons/year
5.	Method of Compliance:			
6.	Allowable Emissions Comment (Description	of	Operating Method):	

DEP Form No. 62-210.900(1) - Form

Effective: 3/16/08 A-91

EMISSIONS UNIT INFORMATION Section | 4 | of | 4 |

POLLUTANT DETAIL INFORMATION
Page [4] of [6]

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: SO2	2. Total Percent Efficie	ency of Control:
3. Potential Emissions: 0.117 lb/hour 0.006		netically Limited? 'es No
to tons/year	(as applicable): NA	
6. Emission Factor: 10 grains / 100 scf Reference: FERC limit		7. Emissions Method Code: 2
8.a. Baseline Actual Emissions (if required): NA tons/year	8.b. Baseline 24-month From:	Period: o:
9.a. Projected Actual Emissions (if required): NA tons/year	9.b. Projected Monitori 5 years	ng Period:] 10 years
10. Calculation of Emissions: (10 gr S/100 scf)(4100 scf/hr)(1 lb/7000 gr) = 0.059 (0.059 lb S/hr)(2 lb SO2/lb S) = 0.117 lb SO2/hr (0.117 lb SO2/hr)(100 hr/yr)(1 ton/2000 lb) = 0.006	ton/yr	
11. Potential, Fugitive, and Actual Emissions Co	omment:	
Calculations based on emergency generator usage	ge of 100 hours per year.	

EMISSIONS UNIT INFORMATION Section [4] of [4]

POLLUTANT DETAIL INFORMATION Page [4] of [6]

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions NA of

Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions: NA		
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year		
5. Method of Compliance:			
6. Allowable Emissions Comment (Descript)			
Allowable Emissions Allowable Emissions	of		
Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:		
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year		
5. Method of Compliance:			
6. Allowable Emissions Comment (Description)			
Allowable Emissions Allowable Emissions	of		
Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:		
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year		
5. Method of Compliance:	'		
6. Allowable Emissions Comment (Description	ion of Operating Method):		

EMISSIONS UNIT INFORMATION Section | 4 | of | 4 |

POLLUTANT DETAIL INFORMATION
Page [5] of [6]

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Pollutant Emitted: PM	2. Total Percent Efficie	ency of Control:
3. Potential Emissions: 0.083 lb/hour 0.004	4. Synth \(\sum \) Y	netically Limited? 'es No
to tons/year	(as applicable): NA	
6. Emission Factor: 0.01941 lb/MM Btu Reference: Table 3.2-3, AP-42 7/00		7. Emissions Method Code: 3
8.a. Baseline Actual Emissions (if required): NA tons/year	8.b. Baseline 24-month From:	Period: o:
9.a. Projected Actual Emissions (if required): NA tons/year	9.b. Projected Monitori 5 years	ng Period:] 10 years
10. Calculation of Emissions: (0.01941 lb/MM Btu)(4.26 MM Btu/hr) = 0.0 (0.083 lb/hr)(100 hr/yr)(1 ton/2000 lb) = 0.0		
11. Potential, Fugitive, and Actual Emissions Co	omment:	
Calculations based on emergency generator usage	ge of 100 hours per year.	

EMISSIONS UNIT INFORMATION Section | 4 | of | 4 |

POLLUTANT DETAIL INFORMATION
Page | 5 | of | 6 |

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions NA of

<u> </u>	Mable Emissions Anomable Emissions INA	<u>1</u> 0	ı		
1.	Basis for Allowable Emissions Code:	2.	Future Effective Date of Allowable Emissions: NA		
3.	Allowable Emissions and Units:	4.	Equivalent Allowable Emissions:		
			lb/hour tons/year		
5.	Method of Compliance:				
	Allowable Emissions Comment (Description		Operating Method):		
$\mathbf{A}\mathbf{I}$	lowable Emissions Allowable Emissions	of_	_		
1.	Basis for Allowable Emissions Code:	2.	Future Effective Date of Allowable Emissions:		
3.	Allowable Emissions and Units:	4.	Equivalent Allowable Emissions:		
			lb/hour tons/year		
5.	Method of Compliance:				
6.	Allowable Emissions Comment (Description	of (Operating Method):		
Al	lowable Emissions Allowable Emissions	of_	_ _		
1.	Basis for Allowable Emissions Code:	2.	Future Effective Date of Allowable Emissions:		
3.	Allowable Emissions and Units:	4.	Equivalent Allowable Emissions: lb/hour tons/year		
5.	Method of Compliance:				
6.	Allowable Emissions Comment (Description	of (Operating Method):		

DEP Form No. 62-210.900(1) ~ Form

Effective: 3/16/08 A-95

EMISSIONS UNIT INFORMATION

Section [4] of [4]

POLLUTANT DETAIL INFORMATION Page [6] of [6]

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Complete a Subsection F1 for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V operation permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

1. Pollutant Emitted: HAPS	2. Total Percent Efficiency of Control:
3. Potential Emissions: 0.10 lb/hour 0.005	4. Synthetically Limited? Stons/year Yes No
5. Range of Estimated Fugitive Emissions to tons/year	(as applicable): NA
6. Emission Factor: 0.0234 lb/MM Btu Reference: AP-42, Table 3.2-3	7. Emissions Method Code: 3
8.a. Baseline Actual Emissions (if required): NA tons/year	8.b. Baseline 24-month Period: From: To:
9.a. Projected Actual Emissions (if required): NA tons/year	9.b. Projected Monitoring Period: 5 years 10 years
10. Calculation of Emissions: (0.0234 lb/MM Btu)(4.26 MM Btu/hr) = 0.1 (0.10 lb/hr)(8760 hr/yr)(1 ton/2000 lb) = 0.0	
11. Potential, Fugitive, and Actual Emissions Co	omment:
Calculations based on emergency generator usage	ge of 100 hours per year.

DEP Form No. 62-210.900(1) – Form Effective: 3/16/08

A-96

EMISSIONS UNIT INFORMATION Section [4] of [4]

POLLUTANT DETAIL INFORMATION Page [6] of [6]

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete Subsection F2 if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions NA of

	IOWADIE EMISSIONS ANOWADIC EMISSIONS IN	
1.	Basis for Allowable Emissions Code:	Future Effective Date of Allowable Emissions: NA
3.	Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5.	Method of Compliance:	
	Allowable Emissions Comment (Description	
Al	lowable Emissions Allowable Emissions	of
1.	Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3.	Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
	Method of Compliance: Allowable Emissions Comment (Description	a of Operating Mathed):
0.	Anowable Emissions Comment (Description	To TOperating Internoo):
Al	lowable Emissions Allowable Emissions	of
1.	Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3.	Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5.	Method of Compliance:	
6.	Allowable Emissions Comment (Description	of Operating Method):

EMISSIONS UNIT INFORMATION

Section [4] **of** [4]

G. VISIBLE EMISSIONS INFORMATION

Complete Subsection G if this emissions unit is or would be subject to a unit-specific visible emissions limitation.

Visible Emissions Limitation: Visible Emissions Limitation NA of

<u>V1</u>	sible Emissions Limitation: Visible Emissi	ons Limitation <u>NA</u> of	
1.	Visible Emissions Subtype:	2. Basis for Allowable Op. Rule	acity: Other
3.	Allowable Opacity: Normal Conditions: % Ex Maximum Period of Excess Opacity Allow 2. Method of Compliance:	sceptional Conditions:	% min/hour
	3. Visible Emissions Comment:		
Vi	sible Emissions Limitation: Visible Emissi	ons Limitation of	
1.	Visible Emissions Subtype:	2. Basis for Allowable Op. Rule	acity: Other
3.	Allowable Opacity: Normal Conditions: % Ex Maximum Period of Excess Opacity Allower	sceptional Conditions:	% min/hour
4.	Method of Compliance:		
5.	Visible Emissions Comment:		

EMISSIONS UNIT INFORMATION

Section [4] of [4]

H. CONTINUOUS MONITOR INFORMATION

Complete Subsection H if this emissions unit is or would be subject to continuous monitoring.

Continuous Monitoring System: Continuous Monitor NA of ___ 1. Parameter Code: 2. Pollutant(s): 3. CMS Requirement: Rule Other 4. Monitor Information... Manufacturer: Model Number: Serial Number: 5. Installation Date: 6. Performance Specification Test Date: 7. Continuous Monitor Comment: **Continuous Monitoring System:** Continuous Monitor ___ of ___ 1. Parameter Code: 2. Pollutant(s): 3. CMS Requirement: Rule Other 4. Monitor Information... Manufacturer: Model Number: Serial Number: 5. Installation Date: 6. Performance Specification Test Date: 7. Continuous Monitor Comment:

EMISSIONS UNIT INFORMATION Section [4] of [4]

I. EMISSIONS UNIT ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

1.	Process Flow Diagram: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) Attached, Document ID: <u>Attach. B</u> Previously Submitted, Date
2.	Fuel Analysis or Specification: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) Attached, Document ID: <u>Attach. G</u> Previously Submitted, Date
3.	Detailed Description of Control Equipment: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) Attached, Document ID: <u>See note below</u> Previously Submitted, Date
4.	Procedures for Startup and Shutdown: (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) Attached, Document ID: Previously Submitted, Date
	Not Applicable (construction application)
5.	Operation and Maintenance Plan: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) Attached, Document ID: Previously Submitted, Date Not Applicable
6.	Compliance Demonstration Reports/Records:
0.	Attached, Document ID:
	Test Date(s)/Pollutant(s) Tested:
	rest Date(s)/10/10/10/10/10/10/10/10/10/10/10/10/10/
	Previously Submitted, Date:
	Test Date(s)/Pollutant(s) Tested:
	To be Submitted, Date (if known):
	Test Date(s)/Pollutant(s) Tested:
	Not Applicable
	Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.
7.	Other Information Required by Rule or Statute: Attached, Document ID: Not Applicable

EMISSIONS UNIT INFORMATION

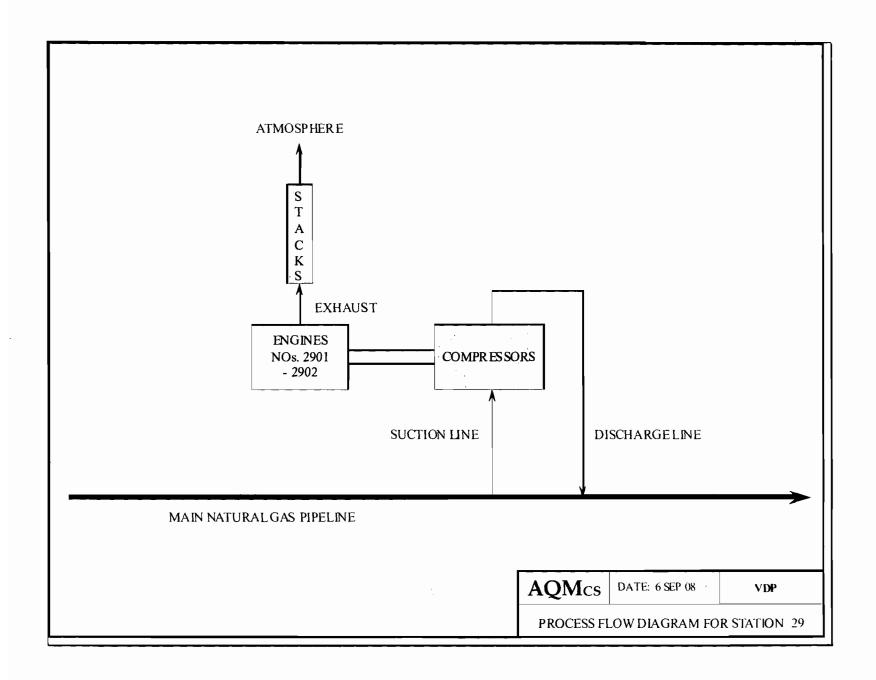
Section [4] of [4]

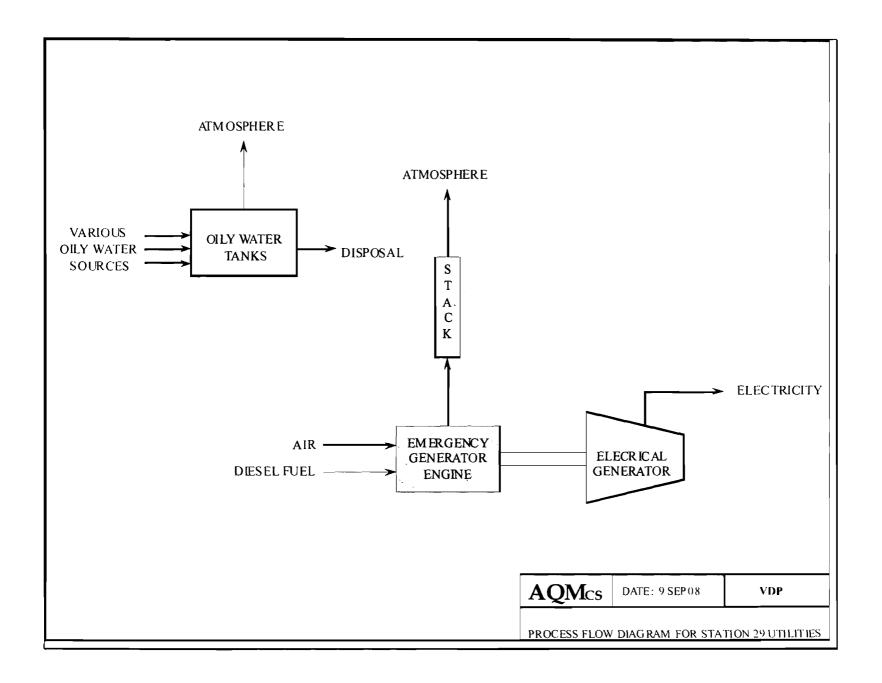
I. EMISSIONS UNIT ADDITIONAL INFORMATION (CONTINUED)

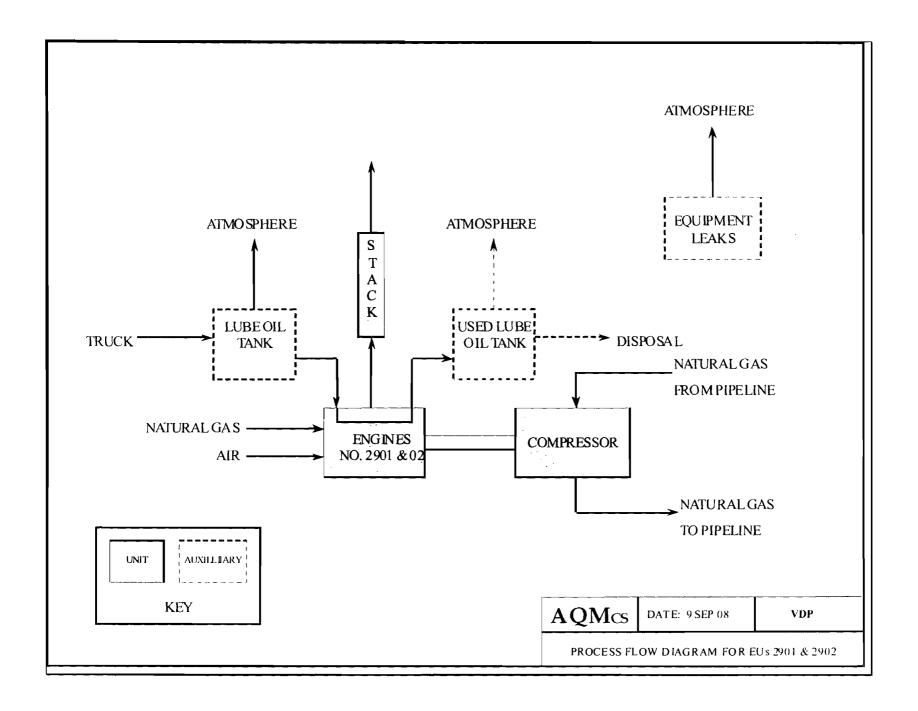
Additional Requirements for Air Construction Permit Applications

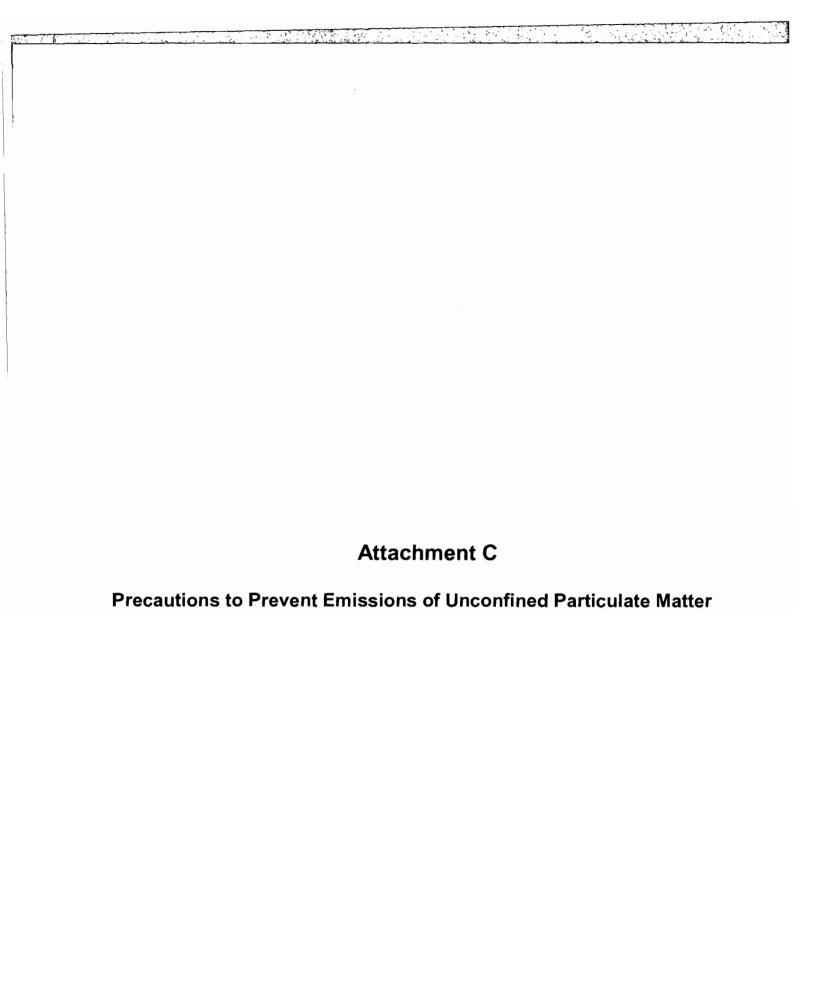
	ontrol Technology Review and Analysis (Rules 62-212.400(10) and 62-212.500(7), A.C.; 40 CFR 63.43(d) and (e)):		
_	Attached, Document ID: <u>Narr. Sec. 3.0</u> Not Applicable		
	ood Engineering Practice Stack Height Analysis (Rules 62-212.400(4)(d) and 62-		
	2.500(4)(f), F.A.C.): Attached, Document ID: Not Applicable		
	escription of Stack Sampling Facilities: (Required for proposed new stack sampling cilities only)		
	Attached, Document ID: <u>See note below</u> Not Applicable		
Addit	ional Requirements for Title V Air Operation Permit Applications		
1. Ide	entification of Applicable Requirements: Attached, Document ID: NA		
2. Co	mpliance Assurance Monitoring: Attached, Document ID: Not Applicable		
3. Alt	ternative Methods of Operation: Attached, Document ID: Not Applicable		
4. Al	ternative Modes of Operation (Emissions Trading): Attached, Document ID: Not Applicable		
Additi	ional Requirements Comment		
Supple	emental information is provided in the narrative description accompanying these forms.		
The manufacturer has not completed design specifications and has not provided final emission rates at this time. Emissions will comply with applicable 40 CFR Subpart JJJJ requirements.			
	ications for the sampling facilities have not been completed at this time. Final cations will comply with USEPA and FDEP regulatory requirements.		

Attachment B
Process Flow Diagram









Precautions to Prevent Emissions of Unconfined Particulate Matter

Precautions that will be taken to prevent unconfined emissions of unconfined particulate matter include:

- a) Chemical or water application to unpaved roads and unpaved yard areas;
- b) Paving and maintenance of roads, parking areas and yards; Landscaping or planting of vegetation;
- d) Other techniques, as necessary.

Attachment D

Plot Plan

PLOT PLAN NEEDED

Attachment E

Vendor Information

Solar Model Taurus T-7800S Turbine Generac SG300

Solar Model Taurus T-7800S Turbine

Solar Turbines

A Caterpillar Company

PREDICTED EMISSION PERFORMANCE

COEMISSIONS

Customer FGT		Engine Voca
Jac ID		CS/MD
HO08-0024		
roury Number		Fuel Type
		SD NAT
Run By	Cate Run	Engine Emis
James Belmont	10-Jul-08	REV. 0.1

NOX EMISSIONS

TAURUS 60-7800S CS/MD 59F MATCH	
Fuel Type	Water Tjection
SD NATURAL GAS	Ю
Engine Emissions Data	
REV. 0.1	

UHC EMISSIONS

1 7277 Hp 100	.0% Load Elev.	0 ft	Rel. Humidity	60.0%	Temperature	59.0 Deg. F
PPMvd at 15% O2	25.00		50.00		2!	5.00
ton/yr	26.44		32.20			0.22
Ibm/MMBtu (Fuel LHV)	0.100		0.121		0.035	
Ibm/(MW-hr)	1.11		1.35			.39
(gas turbine shaft pwr) (boybr	6.04		7.35		7 - 3	.11

Notes

- For short-term emission limits such as lbs/hr., Solar recommends using "worst case" anticipated operating conditions specific to the application and the site conditions. Worst case for one pollutant is not necessarily the same for another.
- Solar's typical SoLoNOx warranty, for ppm values, is available for greater than 0 deg F, and between 50% and 100% load for gas fuel, and between 65% and 100% load for liquid fuel (except for the Centaur 40). An emission warranty for non-SoLoNOx equipment is available for greater than 0 deg F and between 80% and 100% load.
- Fuel must meet Solar standard fuel specification ES 9-98. Emissions are based on the attached fuel composition, or, San Diego natural gas or equivalent.
- 4. If needed, Solar can provide Product Information Letters to address turbine operation outside typical warranty ranges, as well as non-warranted emissions of SO2, PM10/2.5, VOC, and formaldehyde.
- Solar can provide factory testing in San Diego to ensure the actual unit(s) meet the above values within the to/erances quoted. Pricing and schedule impact will be provided upon request.
- Any emissions warranty is applicable only for steady-state conditions and does not apply during start-up, shut-down, malfunction, or transient event.

Solar Turbines

A Caterpillar Company

PREDICTED ENGINE PERFORMANCE

Duam riet		
FGT		
Jab IC HO08-0024		
Run By	Cate Run	
James Belmont	10-Jul-08	
Engine Performance Code	Engine Performance Cata	
REV. 3,40	REV. 0.7	

TAURUS 60-7800S	
Fachage Type CS/MD	
59F MATCH	
Fuel 2; stem	
SD NATURAL GAS	

DATA FOR MINIMUM PERFORMANCE

Elevation Inlet Loss Exhaust Loss Accessory on GP Shaft	feet in H20 in H20 HP	4.0 4.0 14.0
Engine Inlet Temperature Relative Humidity	deg F %	59.0 60.0
Driven Equipment Speed	RPM	13854
Specified Load Net Output Power Fuel Flow Heat Rate Therm Eff	HP HP mmBtu/hr Btu/HP-hr %	FULL 7277 60.59 8326 30.561
Engine Exhaust Flow Exhaust Temperature	lbm/hr deg F	170003 956

Fuel Gas Composition (Volume Percent)

١	Methane (CH4)	92.79
1	Ethane (C2H6)	4.16
	Propane (C3H8)	0.84
	N-Butane (C4H10)	0.18
	N-Pentane (C5H12)	0.04
	Hexane (C6H14)	0.04
	Carbon Dioxide (CO2)	0.44
	Hydrogen Sulfide (H2S)	0.0001
	Nitrogen (N2)	1.51

Fuel Gas Properties

LHV (Btu/Scf)	939.2	Specific Gravity	y 0.5970	Wobbe Index at 60F	1215.6

This performance was calculated with a basic inlet and exhaust system. Special equipment such as low noise silencers, special filters, heat recovery systems or cooling devices will affect engine performance. Performance shown is "Expected" performance at the pressure drops stated, not guaranteed.





STATEMENT OF EXHAUST EMISSIONS NAT GAS FUELED GENERATOR

The measured emission values provided here are proprietary to General and its authorized dealers. This information may only be disseminated upon request, to regulatory governmental bodies for emissions permitting purposes or to specifying organizations as submittal data when expressly required by project specifications, and shall remain confidential and not open to public viewing. This information is not intended for compilation or sales purposes and may not be used as such, nor may it be reproduced without the expressed written permission of Generac Power Systems, Inc. The data provided shall not be meant to include information made public by Generac.

Generator Type: SG300

kWe Rating: 300

Engine Size:

13.3 Liter

Maximum BHP: 454

Engine Family:

Generac 13.3 Liter 6 Cylinder

Aspiration:

Turbocharged-aftercooled

Speed (RFM):

2350 RPM

Emissions Test 5 mode

Additional Equipment Description: Commercial Natural Gas

Engine Certification: No Catalyst

Measured Emissions (grams/brake horsepower-hour) based on parent engine @ 454 bhp

<u>co</u>	NOx	HC	THC + NO _x
118.3	2.12	2.91	5.03

- The stated values are actual exhaust emission test measurements obtained from a unit representative of the generator type and engine described above.
- Values based on 5-mode testing are official data of record as submitted to regulatory agencies for certification purposes. Testing was conducted in accordance with prevailing EPA & CARB protocols, which are typically accepted by SCAOMD and other regional authorities.
- Values based on full load testing are provided for reference only due to 5-mode test data being unavailable. Data may be based on testing performed by either the engine supplier or Generac Power Systems.
- No emission values provided above are to be construed as guarantees of emission levels for any given Generac generator unit.
- Generac Power Systems reserves the right to revise this information without prior notice.
- Consult state and local regulatory agencies for specific permitting requirements.
- The emission performance data supplied by the equipment manufacturer is only one element required toward completion of the permitting and installation process. State and local regulations may vary on a case-by-case basis and must be consulted by the permit applicant/equipment owner prior to equipment purchase or installation. The data supplied herein by Generac Power Systems cannot be construed as a guarantee of installability of the generating set.

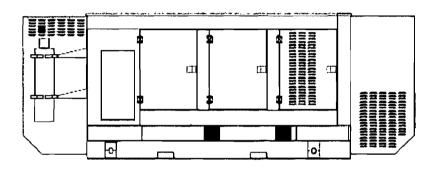
INDUSTRIAL SALES P.O. BOX 8 • WAUKESHA, WI 53187 • 262-544-4800 • FAX 262-544-4854

SSD, E6297W Rev Date 8-28-06

SG275 SG300

Liquid Cooled Gas Engine Generator Sets

Standby Power Rating 275 KW 60 Hz / 275 KVA 50 Hz 300 KW 60 Hz / 300 KVA 50 Hz





FEATURES

- INNOVATIVE DESIGN & PROTOTYPE TESTING are New components of GENERAC'S succession IMPROVING POWER BY DESIGN." But it doesn't stop there. To let commitment to component testing, relability testing, environmental lesting, destruction and ife testing, plus testing to applicable CSA, NEMA, EGSA, and other standards, allows you to choose GENERAC POWER SYSTEMS with the confidence that these systems will provide superior performance.
- TEST CRITERIA:
 - ✓ PROTOTYPETESTED
 - ✓ SYSTEM TORSIONAL TESTED
 - ELECTRO-MAGNETIC INTERFERENCE
 - ✓ NEMA MG1 EVALUATION.
 - MOTOR STARTING ABILITY
 - SHORT CIRCUIT TESTING
 - UL2200 COMPLIANCE AVAILABLE

- SOLID-STATE, FREQUENCY COMPENSATED DIGITAL VOLTAGE REGULATION. This state-of-the-ent power maximizing regulation. system is standard on all General models. It provides optimized FAST RESPONSE to changing bed conditions and MAXIMUM MOTOR STARTING CAPABILITY by electronically torque-metalling the surge leads to the engine.
- SINGLE SOURCE SERVICE RESPONSE from Generad's dealer network provides parts and service know-how for the entire unit, from the engine to the smallest electronic component. You are never on your own when you own a GENERAC POWER SYSTEM.
- GENERAC TRANSFER SWITCHES, SWITCHGEAR AND ACCESSORIES. Long life and reliability is synonymous with GENERAC POWER SYSTEMS. One leason for this confidence is that the GENERAC product line includes its own transfer systems, accessories, switchgeer and controls for total system. compatibility.



APPLICATION & ENGINEERING DATA

SG275/SG300

GENERATOR SPEC	CIFICATIONS	ENGINE SPECIFIC	ATIONS
TYPE	Four-role, revolving field	MAKE	GENERAC
ROTOR INSULATION		MCOEL	
STATOR INSULATION		CYUNDERS	
TOTAL HARMONIC DISTORTION		DISPLACEMENT	
TELEPHONE INFLUENCE FACTOR		BORE	
ALTERNATOR		STROKE	
BEARINGS (PRE-LUBED & SEALEI		COMPRESSION RATIO	
COUPLING	,	INTAKE AIR	
LCIAD CAPACITY (STANEBY)		NUMBER OF MAIN BEARINGS	
core oversit i (orange);		CONNECTING ROOS	
NOTE: Generator rating and perior	miance in accordance with	CYLINDER HEAD	
ISO8528-5. BS5514, SAE J1349, IS		CYUNDER UNERS	
		KINITION	
EXCITATION SYSTEM		PISTONS	
PERMANENT MAGNET PILOT EXC	TEO Fluidado roda avoltar /	CRANKSHAFT Induction-I	, ,
	• •	J. F. T.	in as lest the league of the street
'	Magnetically coupled DC current /	VALVE TRAIN	
1.4	Nighthead rillem to bisection bearing	LIFTER TYPE	Sold
REGULATION		INTAKÉ VALVE MATERIAL	
	•	EXHAUST VALVE MATERIAL	
3	Phase Sensing, ± 1% regulation /	HARDENED VALVE SEATS	, , ,
GENERATOR FEAT	THDEC	FUANT AMIERNAS	
GENERATOR FEAT	IUNES	ELECTRONIC	Chadaid
Revolving field heavy duty generator			
□ Directly connected to the engine			LOAD TO FULL LOADIsochronous
□ Cparating temperature rise 120 °C above		STEADY STATE REGULATION	<u>+</u> 0.25%
☐ Insulation is Class Hiraled at 150 °C itse			
⊇ All prolotype models have passed firee. ⊇ PMG	buses alou group leaning	LUBRICATION SYSTEM	* · · · • • · · · · ·
_ PMG		TYPE OF OIL PUMP	
CONTROL PANEL	EE ATHDEC	OIL FILTER.	
CONTROL PANEL	real unes	CRANKCASE CAPACITY	27 Liters (7.13 gal.)
☐ TWO FOUR LINE LCD DISPLAYS I	READ:	COOLING SYOTEM	
 Voltage (all phases) 	 Current (all phases) 	COOLING SYSTEM	B
Power factor	•kW	TYPE OF SYSTEM	
• KVAR	 Transfer switch status 	WATER PUMP	
• Engine speed	 Low fuel pressure 	TYPE OF FAN	
• Run hours	• Service reminders	NUMBER OF FAN BLADES	
• Fault history	• Ol pressure	DIAMETER OF FAN	
 Coolant temperature Low of pressure shutdown 	 Time and date High coolant temperature shuidown 	COOLANT HEATER	240V, 2000 W
Overvorlage	• Overseed		
Low coolant level	Low codant level	FUEL SYSTEM	
 Not in auto position (flashing light) 	Exercise speed	FUEL	
• ATS selection		D Netural Gas	Standerd
☐ INTERNAL FUNCTIONS:		CARBUAETOR	
 FT function for afternator protection from 	make to neutral and line to the short drouts	SECONDARY FUEL REGULATOR.	Net Gas
 Emergency stop 		AUTOMATIC FUEL LOCKOFF SOL	ENCID Standerd
 Programmable auto crank function 		OPERATING FUEL PRESSURE SY	
• 2 whre slast for any transfer switch	O town by match		
 Communicates with the Generac HT Butti-in 7 day exerciser 	2 Harisher Switch	ELECTRICAL SYSTEM	
 Butt-in r day exerciser Adjustable engine speed at exercise 		BATTERY CHARGE ALTERNATOR	20 Amps at 24 V
RS232 port for Gentink* control		STARTER MOTOR	•
RS485 port remote communication		RECOMMENDED BATTERY	
Carbus addressable		GROUND POLARITY	
	and interest part of the first are detailed		
 Governor controller and workers near 			

 Governor controller and voltage regulator are built into the master control board
 Temperature range -4.0 °C to 70 °C Sating paintings - Standay Applicable for supplying emergency power for the duration of the visity power durate. No overload capability is available for this rating, in accordance with ESSS14, ISO1046 and CINECTRY. Prime power is the maximum power available as scandarded and CINECTRY. Prime power is the maximum power available as scandarded and CINECTRY.

See The Control of the CINECTRY of the control of the



SG275/SG300

GENERATOR OUTPUT VOLTAGE KW-69htz	OPERATING DATA	SG	275	SG	300
100/2609, 3-philes 0.0 pt sorts: consulyour 275 964 300 1041 100/2409, 3-philes 0.0 pt 902 277/4809, 3-philes 0.0 pt 902 275 331 300 361 MOTOR STARTING	GENERATOR OUTPUT VOLTAGE/KW-60Hz				
120/2409, 3-phase, 0.9 pt 275 927 300 902 902 977/4809, 3.9 pt 3280rd vitages 275 413 300 451 800 300 361 800 300 361 800 300 361 800 300 361 800 300 361 800 300 361 800 300 361 800 300 361 800 300 361 800 300 361 800 300 361 800 300 361 800 300 361 800 300 361 800 300 361 800 300 361 800 300 361 800 300	120/209V, 3-thase, 0.9 pt Note: Consulvour				
MOTOR STARTING	120/240V, 3-tithese, 0.9 pt General sealer for	275	827	200	902
MOTOR STARTING Modification at 35% international sector—60 Hz with standard alternator—60 Hz with standard alternator—60 Hz 1000 KVA 1060 KVA 1	277/480V, 3-prass, 0.8 pr				
Meximum at 35% Instantaneous witage dip with standard alternator—69 Hz with standard alternator—69 Hz 1000 KVA 1060 KV	600V, 3-phase, 0.9 pf	275	391	300	361
Modification of 35% Instantaneous victage dip with standard alternator—60 Hz 208/240Y 360 KVA 1060 KVA	MOTOR STARTING				
Military Military	Maximum at 95% Instantaneous voltage dip	208/240V	480V	208/240V	480V
FUEL Fuel consumption—60 Hz—100% Load in thin. No Load 906 906 906 906 906 906 907 907 908 908 908 908 908 908 908 908 908 909 908 908					
Fireflorinsumption—60 Hz—100/s Load ft in. No Load 906 906 25% 1557 1671 50% 2253 2376 75% 3000 3199 190% 3792 4100 COOLING 50% 190% 3792 4100 COOLING 50% 190% 3792 4100 COOLING 50% 190% 50% 50% 190% 50% 50% 190% 50% 50% 50% 50% 50% 50% 50% 50% 50% 5	with optional alternator—60 Hz	1000 KVA	1350 KWA	1000 KVA	1350 KVA
Fuel consumption—60 Hz—100/s. Loadft in. No Load	FLIFL	N	G	N.	<u> </u>
No Load 25% 1567 1671		111	<u></u>	11	<u> </u>
25% 50% 2253 2376 2376 3199 3199 3199 3199 3119 31		90	96	90	6
75% 3000 3199 4100		15	57	16	71
COOLING				23	76
COOLING Cholant capacity System Ill. (US gal.) Coolant flow/min. 80 Hz US gal. 138 139) Heat rejection to content BTUhr. 1,046,600 1,048,250 Institut 60 Hz (cfm) 19,200 19,200 Max. operating all temps unto radiator 10 (F) 60 (140) 60 (140) Max. operating ambient temp. 10 (F) 50 (122) 50 (122) Max. external pressure drop on rad. In HyG 0,5 0.5 COMBUSTION AIR REQUIREMENTS Flow at rated power 60 Hz memin. (cfm) 31.1 (1106) 34 (1200) EXHAUST Exhaust flow at rated output 60 Hz memin. (cfm) 50 (1.5°) 5.0 (1.5°) Exhaust stemp at rated output 9° F 1470 1490 Exhaust stemp at rated output 9° F 1470 1490 Exhaust output 80 Hz (flenge) 4° 1.0. 4° 1.0. ENGINE Rated RPM 60 Hz 2000 2000 Hz memin. (cfmin) 454 HP at rated KW 60 Hz 419 454 Platon speed 60 Hz memin. (cfmin) 690 (2265) 590 (2265)					
Coolant capacity Systam (it. (US gal.) 56.9 (15) 56.9 (15) 138 139) 139 13	100%	97	92	410)0
138	COOLING				
Heel rejection to cooken! BTUTIN, 1,046,600 1,048,250 1,049,200 1,048,250 1,		56.9	(15)	56.9	(15)
Initial arr					
Max. operating all temp, cnto radiator* ∩C (°F) 60 (140) 60 (140) Max. operating amount temp.* ∩C (°F) 50 (122) 50 (122) Max. external pressure drop on red. n. H₂O 0.5 0.5 COMBUSTION AIR REQUIREMENTS 7. (cm) 31.1 (1100) 34 (1200) EXHAUST 2. (cm) 2. (cm) 2. (cm) 2. (cm) Exhaust flow at rated output 60 Hz m/min. (cm) 112 (3990) 122 (4335) 2. (cm) Exhaust lamp, at rated output °F 1470 1490 1490 2. (fenge) 4° (.0.) 4° (.0.) 4° (.0.) 4° (.0.) 4° (.0.) 4° (.0.) 4° (.0.) 4° (.0.) 4° (.0.) 2. (cm) 4° (.0.) 4° (.0.) 4° (.0.) 4° (.0.) 4° (.0.) 4° (.0.) 4° (.0.) 4° (.0.) 4° (.0.) 4° (.0.) 4° (.0.) 4° (.0.) 4° (.0.) 4° (.0.) 4° (.0.) 4° (.0.) 4° (.0.) 4° (.0.) 4° (.0.) <					
Max. operating ambient temp.* □C(F) 50(122) 50(122) Max. external pressure drop on rad. In. H₂O 0.5 0.5 COMBUSTION AIR REQUIREMENTS 31.1 (1100) 34 (1200) EXHAUST 31.1 (1100) 34 (1200) EXHAUST Exhaust flow at rated output = 60 Hz m/min. (cmm) 112 (3980) 122 (4335) Max. recommended back pressure Kpe (Hg) 5.0 (1.5°) 5.0 (1.5°) Exhaust temp, at rated output = 7				,-	
Max. external pressure drop on red. in. Hyō 0.5 0.5 COMBUSTION AIR REQUIREMENTS Flow at rated power 31.1 (1190) 34 (1200) EXHAUST Exhaust flow at rated output 60 Hz m/min. (cmr) 112 (3990) 122 (4335) Max. recommended back pressure Kpa (Hg) 5.0 (1.5°) 5.0 (1.5°) Exhaust temp, at rated output °F 1470 1490 Exhaust outlet size (flenge) 4° I.D. 4° I.D. ENGINE Rated RPM HP at rated KW 60 Hz 60 Hz 2900 419 2900 454 454 419 2900 454 454 Piston speed 60 Hz m/min. (ft.min.) 690 (2265) 690 (2265)					
COMBUSTION AIR REQUIREMENTS Flow at raised power 65 Hz mirmin. (cmm) EXHAUST Exhaust flow at raised output 65 Hz mirmin. (cmm) Max. recommended back pressure Kpa (Hg) 5.0 (1.5*) 5.0 (1.5*) Exhaust lamp, at raised output 9F 1470 1490 Exhaust outlet size (flenge) 4* (.0. 4* 1.0. ENGINE Raited RPM 60 Hz 2006 2300 HP at raited KW 60 Hz 419 454 Piston speed 60 Hz mirmin. (ft./min.) 690 (2265) 590 (2265)					
Flow at railed power 90 Hz m/min. (cm) 31.1 (1190) 34 (1200)	was, external pressure grop on rad. In mys	···		0.	
Exhaust flow at rated output 60 Hz m/min. (cmi) 112 (3990) 122 (4335) Mex. recommended back pressure Kpa (Hg) 5.0 (1.5°) 5.0 (1.5°) 1490 Exhaust temp at rated output °F Exhaust outlet size (flenge) 4° LD. 4° LD. 4° LD.		31.1 (1 100)	34 (1	200)
Rated RPM 60 Hz 2900 2900 HP at rated KW 60 Hz 419 454 Piston speed 60 Hz m/min. (t./min.) 690 (2265) 590 (2265)	Exhaustiflow at raied output 60 Hz m/(min. (cmm) Max. recommended back pressure Kpa (Hg) Exhaust temp, at refed output °F	5.0 (14	1.5°) 70	5.0 (14s	1,5') 90
Rated RPM 60 Hz 2900 2900 HP at rated KW 60 Hz 419 454 Piston speed 60 Hz m/min. (t./min.) 690 (2265) 590 (2265)					
HP at railed KW 60 Hz 419 454 Piston speed 60 Hz m/min. (t./min.) 690 (2265) 590 (2265)		24	00	22	30
Piston speed 60 Hz m/min. (rt./min.) 690 (2265) 590 (2265)					
DMED 20 Hz					
BMEP 60 Hz 178 193	BMEP & Hz	17	7.8	19	3
DERATION FACTORS Temperature					
1.9% for every 10°C above - °C 40 40		4	0	ılı.)
1.1% for exery 10-F above - ^F 104 104		10	04	10	14
Altitude					
0.7% for every 100 m above - m 1220 1067					•
2.1% for every 1000 ft, above - ft 4000 3500	2.1% for every 1000 ft, above - ft.	40	00	354	30

STANDARD ENGINE & SAFETY FEATURES

SG275/SG300

- High Codent Temperature Automatic Shuldown Low Codent Level Automatic Shuldown
- Low C4 Pressure Automatic Shutdown
- Overspeed Automatic Shufdown (Scild-state)
- 🖿 Crank Limiter (Solid-slate)
- 🖪 🗇 Etain Extension
- Radieto Crein Extension
- Facktry-installed Cool Flow Radiator
- Closed Coolant Recovery System
- UV/Dzone Resistant Hoses
 Ruther-Booted Engine Electrical Connections
- Isochionous Governor

- Fuel Lockoff Solenoid
- Secondary Fuel Regulator (N.G.)
 Stainless Steel Flexible Exhaust Connection
- Battery Charge Alternator
- Battery Cables
- Bartery Tray
- Vibration isclation of Unit to Mounting Base
- 24 Volt, Sciencid-Active led Starter Motor.
- Alt Cleaner
- Fan Guard Control Conscie (H100)

OPTIONS

- OPTIONAL COOLING SYSTEM ACCESSORIES Radiator Duct Adapter
- OPTIONAL FUEL ACCESSORIES i Flexible Fuel Unes
- OPTIONAL EXHAUST ACCESSORIES
- Critical Exhaust Stencer
- OPTIONAL ELECTRICAL ACCESSORIES
 - Bettery, (2) 12 Volt, 135 A.H., 4DLT
 Bettery, (2) 12 Volt, 225 A.H., 8D

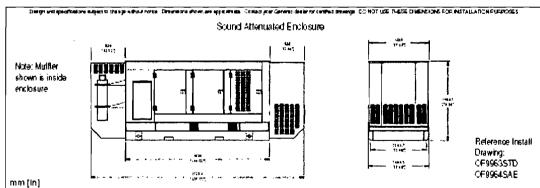
 - Bettery Heater
 2A Battery Charger
 - 10A Dual Rate Battery Charger
- OPTIONAL ALTERNATOR ACCESSORIES
 - O Alternator Strip Heater
 - Affernator Tropicalization
 - Main Line Circuit Breaker
- CONTROL CONSOLE OPTIONS Digital Controller H100 see specification 01721105BY

- ADDITIONAL OPTIONAL EQUIPMENT
- Automatic Transfer Switch (GTS or HTS).
- 20 Light Remote Annundator
 Remote Relay Penels
- Unit Vitration isolators
- O OI Make-Up System
- O of Heater O 5 Year Warranties
- Export Bostog
- Gen⊔nk® Communications Software
- OPTIONAL ENCLOSURES

 O Meether Projective

 - Sound Aftenuated
 - Aluminum and Stainless Sisel
 - Enclosed Mutter





GENERAC' POWER SYSTEMS, INC. - P.O. BOX 8 - WAUKESHA, WI 53187

262/544-4811 · FAX 262/544-4851

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Attachment F

Emission Calculations

Compressor Station No. 29 Engine No. 2901/2902 EPN: 001/002

NOx Emissions: (Based on Vendor Data)

Ib NOx/hr = 6.04

tons NOx/yr = (lb NOx/hr)(2000 lb/1 ton)(8760 hr/1 yr)

= (6.04 lb/hr)(2000 lb/1 ton)(8760 hr/yr)

= 26.455

CO Emissions: (Based on Vendor Data)

lb CO/hr = 7.35

tons CO/yr = (lb CO/hr)(2000 lb/1 ton)(8760 hr/1 yr)

= (7.35 lb/hr)(2000 lb/1 ton)(8760 hr/yr)

= 32.193

VOC Emissions: (Based on Vendor Data)

lb UHC/hr = 2.110

Ib VOC/yr = (0.211 UHC lb/hr) * (VOC fraction of 0.1)

= 0.211

tons VOC/yr = (lb VOC/hr)(2000 lb/1 ton)(8760 hr/1 yr)

= (0.21 lb/hr)(2000 lb/1 ton)(8760 hr/yr)

= 0.924

SO2 Emissions: (Based on FERC Limits)

lb S/hr = (gr S/100 scf)(MMscf/hr)(1 lb/7000 gr)

= (10 gr S/100 scf)(0.0645 MMscf/hr)(1 lb/7000 gr)

= 0.922

lb SO2/hr = (lb S/hr)(2 lb SO2/lb S)

= (0.92 lb S/hr)(2 lb SO2/lb S)

= 1.843

tons SO2/yr = (lb SO2/hr)(hr/yr)(1 ton/2000 lb)

= (1.84 lb SO2/hr)(8760 hr/yr)(1 ton/2000 lb)

= 8.073

PM 10/2.5 Emissions: (Based on AP-42 Table 3.1-2a, 4/00)

lb PM/hr = (lb PM/MMBtu)(MMBtu/hr)

= (0.0066 lb/MMBtu)(67.09 MMBtu/hr)

= 0.443

tons PM/yr = (lb PM/hr)(hr/yr)(1 ton/2000 lb)

= (0.44 lb PM/hr)(8760 hr/yr)(1 ton/2000 lb)

= 1.939

HAPs Emissions: (Based on AP-42 Table 3.1-3, 4/00)

lb HAP/hr = (lb HAP/MMBtu)(MMBtu/hr)

= (0.00102700 lb/MMBtu)(67.090 MMBtu/hr)

= 0.069

tons HAP/yr = (lb HAP/hr)(hr/yr)(1 ton/2000 lb)

= (0.069 lb HAP/hr)(8760 hr/yr)(1 ton/2000 lb)

= 0.302

Emergency Gen. Nos. 1 & 2 EPNs: 003 & 004

0.0145

0.0145

0%

Control Effic. =

Controlled CO tpy =

NOx Emissions: (Based on Vendor Data) SO2 Emissions: (Based on FERC Limits) lb NOx/hr = (g/bhp-hr)(bhp)(1 lb/453.59 g) (gr S/100 scf)(MMscf/hr)(1 lb/7000 gr) (2.12 g/bhp-hr)(454 bhp)(1 lb/453.59 (10 gr S/100 scf)(0.0041 MMscf/hr)(1 lb/7000 g) gr) 2 1 2 2 0.059 Control Effic. = 5.7% Controlled NOx lb/hr = 2.00 lb SO2/hr = (lb S/hr)(2 lb SO2/lb S) (0.06 lb S/hr)(2 lb SO2/lb S) (lb NOx/hr)(hr/yr)(1 ton/2000 lb) tons NOx/vr = 0.117 (2.12 lb NOx/hr)(100 hr/yr)(1 ton/2000 0.1061 = Control Effic. = 5.7% tons SO2/yr = (lb SO2/hr)(hr/yr)(1 ton/2000 lb) Controlled NOx tpy = 0.10(0.117 lb SO2/hr)(100 hr/yr)(1 ton/2000 lb) 0.006 CO Emissions: (Based on Vendor Data) lb CO/hr = (g/bhp-hr)(bhp)(1 lb/453.59 g) (118.3 g/bhp-hr)(454 bhp)(1 lb/453.59 PM Emissions: (Based on AP-42 Table 3.2-3, 7/00) 118,404 lb PM/hr = (lb PM/MMBtu)(MMBtu/hr)Control Effic. = 96.6% (0.01941 MMBtu/hr)(4.26 MMBtu/hr) Controlled CO lb/hr = 4.03 0.083 (lb CO/hr)(hr/yr)(1 ton/2000 lb) tons CO/yr = (118.40 lb CO/hr)(100 hr/yr)(1 ton/2000 lb) tons PM/yr = (lb PM/hr)(hr/yr)(1 ton/2000 lb) 5.92 (0.083 lb PM/hr)(100 hr/yr)(1 ton/2000 lb) Control Effic. = 96.6% 0.0041 Controlled CO tpy = 0.20 VOC Emissions: (Based on Vendor Data) HAPs Emissions: (Based on AP-42 Table 3.2-3, 7/00) (g/bhp-hr)(bhp)(1 lb/453.59 g) Ib HAP/hr = (lb HAP/MMBtu)(MMBtu/hr) (0.29 g/bhp-hr)(454 bhp)(1 lb/453.59 (0.0234 lb/MMBtu)(4.26 MMBtu/hr) g) = 0.290 0.0997 Control Effic. = 0% Controlled VOC lb/hr = 0.290 tons HAP/yr = (lb HAP/hr)(hr/yr)(1 ton/2000 lb) tons VOC/yr = (lb VOC/hr)(hr/yr)(1 ton/2000 lb) (0.10 lb HAP/hr)(100 hr/yr)(1 ton/2000 lb) (0.29 lb VOC/hr)(100 hr/yr)(1 ton/2000 lb) 0.005

TANKS 4.0.9d

Emissions Report - Summary Format Tank Indentification and Physical Characteristics

Identification	
User Identification:	FGT CS 29 Oily Water
City:	Okochobee
State:	Florida
Company:	Florida Gas Transmission
Type of Tank:	Vertical Fixed Roof Tank
Description:	
Tank Dimensions	
Shell Height (ft):	
Diameter (ft):	
Liquid Height (ft):	

Turnovers: Net Throughput(gal/yr):

Avg. Liquid Height (ft):

Is Tank Heated (y/n):

Paint Characteristics

Volume (gallons):

Shell Color/Shade: White/White Shell Condition Good Roof Color/Shade: White/White Roof Condition: Good

Roof Characteristics

Type: Cone

 Height (ft)
 0.00

 Slope (ft/ft) (Cone Roof)
 0.06

Breather Vent Settings

Vacuum Settings (psig): -0.03 Pressure Settings (psig) 0.03

Meterological Data used in Emissions Calculations: Vero Beach, Florida (Avg Atmospheric Pressure = 14.75 psia)

6.00 4.00 6.00

3.00

0.89

564.02

500.00

TANKS 4.0.9d

Emissions Report - Summary Format Liquid Contents of Storage Tank

FGT CS 29 Oily Water - Vertical Fixed Roof Tank Okochobee, Florida

			,		Liquid								
			nily Liquid S perature (d		Bulk Temp	Vapo	or Pressure	(psia)	Vapor Mol.	Liquid Mass	Vapor Mass	Mol.	Basis for Vapor Pressure
Mixture/Component	Month		Min.	Max.	(deg F)	Avg.	Min.	Max.	Weight.	Fract.	Fract.	Weight	Calculations
Lube Oil	Ail	74.17	69.18	79.16	72.43	0.0001	0.0001	0.0001	190.0000			190.00	Option 1: VP70 = .00006 VP80 = .00009

TANKS 4.0.9d

Emissions Report - Summary Format Individual Tank Emission Totals

Emissions Report for: Annual

FGT CS 29 Oily Water - Vertical Fixed Roof Tank Okochobee, Florida

	 	Losses(lbs)			
Components		Working Loss	Breathing Loss	Total Emissions	
Lube Oil	 	0.00	- 0.00	0.00	

TANKS 4.0.9d

Emissions Report - Summary Format Tank Indentification and Physical Characteristics

^-	 ca	 ~ P

User Identification: FGT CS 29 Condensate

City: Okochobee

State: Florida

Company: Florida Gas Transmission
Type of Tank: Vertical Fixed Roof Tank
Description:

Tank Dimensions

 Shell Height (ft):
 12.00

 Diameter (ft):
 8.00

 Liquid Height (ft):
 12.00

 Avg. Liquid Height (ft):
 6.00

 Volume (gallons):
 4,512.16

 Turnovers:
 0.01

 Net Throughput(gal/yr):
 50.00

Is Tank Heated (y/n): N

Paint Characteristics

Shell Color/Shade: White/White Shell Condition Good Roof Color/Shade: White/White Roof Condition: Good

Roof Condition:
Roof Characteristics

Type: Cone

Height (ft) 0.00 Slope (ft/ft) (Cone Roof) 0.06

Breather Vent Settings

Vacuum Settings (psig): -0.03
Pressure Settings (psig) 0.03

Meterological Data used in Emissions Calculations: Vero Beach, Florida (Avg Atmospheric Pressure = 14.75 psia)

TANKS 4.0.9d Emissions Report - Summary Format Liquid Contents of Storage Tank

FGT CS 29 Condensate - Vertical Fixed Roof Tank Okochobee, Florida

													
					Liquid								
		Da	ily Liquid S	urf.	Bulk				Vapor	Liquid	Vapor		
		Tem	perature (di	eg F)	Temp	Vapo	r Pressure	(psia)	Mol.	Mass	Mass	Mol.	Basis for Vapor Pressure
Mixture/Component	Month	Avg.	Min.	Max.	(deg F)	Avg.	Min.	Мах.	Weight.	Fract.	Fract.	Weight	Calculations
Pipeline Condensate	Ail	74.17	69.18	79.16	72.43	0.7115	0.6303		53.0000			53.00	Option 4: RVP=1.4

TANKS 4.0.9d Emissions Report - Summary Format Individual Tank Emission Totals

Emissions Report for: Annual

FGT CS 29 Condensate - Vertical Fixed Roof Tank Okochobee, Florida

	 	Losses(lbs)	
Components	Working Loss	Breathing Loss	Total Emissions
Pipeline Condensate	 0.03	27.08	27.12

Attachment G

Fuel Analysis

FTWSCB1.ener			East Gys	stem Chro	omatograph	5	01-A	ug-2008 14:05:09	
	tington of			Chathor 13	Jacksonville Lat	rasidhas ibe Trab	Brandy Branch	State in Es	
n-Hexanes +	0.0698	0.0706	0.0627	0.0199	0.0058	0.0638	0.0013	0.0453	
Nitrogen	0.5661	0.5581	0.5374	0.4067	0.0616	0.5267	0.0184	0.4515	
Methane	95.5536	95.5834	95.5528	95.9043	96.5431	95.6856	96.6087	95.6529	
Carbon Dioxide	0.9859	0.9896	0.9931	0.7936	0.1266	1.0224	0.0153	0.7481	
Ethane	2.2210	2.2010	2.2452	2.3074	2.6850	2.1642	2.7702	2.4459	
Propane	0.3579	0.3530	0.3637	0.3569	0.4396	0.3325	0.4590	0.4177	
Iso-Butane	0.0806	0.0796	0.0814	0.0710	0.0704	0.0728	0.0702	0.0854	
n-Butane	0.0944	0.0933	0.0947	0.0716	0.0563	0.0757	0.0515	0.0923	
Iso-Pentane	0.0406	0.0411	0.0395	0.0270	0.0076	0.0333	0.0039	0.0356	
n-Pentane	0.0301	0.0304	0.0295	0.0187	0.0038	0.0229	0.0016	0.0253	
Un-normalized Totals	100.03		99.91	99.78	100.08		99.85	99.40	
Specific Gravity	0.5869	0.5873	0.5868	0.5831	0.5759		0.5750	0.5850	
BTU / cu. ft.	1030.2		1030.4	1031.8	1043.2		1045.2	1035.1	
	CR15		BRO1	CR18	CRJX	GLAB	CRBB	CR21	
Dew Point and H2S		Recall	Wes	st Chromatog	graphs	Eas	East On Line Chromatographs		

Attachment H List of Exempt Emissions Units

List of Exempt Emissions Units

- 1. 500 gallon Oily Water Storage Tank, vertical, 4' x 6'
- 2. Fugitive emissions from component leaks



5444 Westheimer-Road Houston, TX 77056-5306

Pay

TWO THOUSAND TWO HUNDRED FIFTY AND 00/100 DOLLARS

To The Order of

> FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION 2600 BLAIRSTONE, MS 5500 TALLAHASSEE, FL 32399-2400

> > Authorized Signature



Gross Amount

Date

PRM NO. LTB-01

Check Date:

Invoice Number

11/21/2008

Invoice Date Voucher ID Check No.:

Discount Available

300092

Paid Amount

Note: Veckie has original desk looked up-RECEIVED

APPLICATION FOR AIR CONSTRUCTION PERMIT - COMPRESSOR STATION 29

NOV 26 2008

BUREAU OF AIR REGULATION

Vendor Number		Vendor Name		Total Discounts	,
-					
Check Number	Date	·	Total Amount	Discounts Taken	Total Paid Amount
	11/21/2008			'	\$2,250.00