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Florida Municipal Power Authority  
Treasure Coast Energy Center Initial Title V Operation Permit

BUREAU OF AIR REGULATION  
B&V Project 149956  
August 8, 2008

Attn: Trina L. Vielhauer  
Bureau of Air Regulation  
FDEP-Division of Air Resource Management  
2600 Blair Stone Road  
Tallahassee, FL 32399-2400

Subject: Treasure Coast Energy Center Initial Title V operation Permit

Dear Ms. Vielhauer:

On behalf of Florida Municipal Power Authority (FMPA), Black & Veatch is pleased to submit one original and four (4) copies of the Initial Title V Operation Permit Application for the Treasure Coast Energy Center (TCEC).

Should you have any questions, please feel free to contact me at (913) 458-9837 or Susan Schumann, FMPA at 407-355-7767.

Very truly yours,

BLACK & VEATCH

Ajay N. Kasarabada P.E.  
Air Quality Engineer

ank  
Enclosure[s]

cc: Susan Schumann, FMPA  
Ed Leongomez, FMPA  
Angela Morrison Uhland, HGS

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BUREAU OF AIR REGULATION



Florida Municipal Power Agency  
Community Power. Statewide Strength.

## Treasure Coast Energy Center

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# Initial Title V Operation Permit Application

B&V Project Number 149956

**August 2008**

Black & Veatch Corporation  
11401 Lamar  
Overland Park, Kansas 66211  
Tel: (913) 458-2000 [www.bv.com](http://www.bv.com)



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## 1.0 Introduction

This initial Title V Operation Permit application is for the Treasure Coast Energy Center (TCEC) located in Fort Pierce, Florida. As required by Florida Administrative Code regulations, FMPA has prepared the initial Title V Operation Permit Application on the forms provided by the Florida Department of Environmental Protection (FDEP). Supplementary attachments are included to support the information contained in the application forms.

In accordance with Rule 62-213.405, F.A.C, this application also requests a concurrent revision to the construction permit PSD-FL-353, to remove all references to the New Source Performance Standards (NSPS) Subparts GG and Da, and appropriately reword applicable emission unit-specific conditions.

Finally, this application makes note of differences that arise between the initial air construction permit application and the final as-built design of the facility. These differences are discussed in detail in Section 4.0.

## 2.0 Information Provided in This Application

The focus of this document is on the new emission units/emission points and applicable requirements that were permitted under the construction permit (PSD-FL-353, DEP File No. 1110121-001-AC), issued May 30, 2006. FMPA commenced construction of the TCEC on August 3, 2006, initiated operations (i.e, first fire) on February 11, 2008, and began commercial operations on June 10, 2008.

This initial Title V Operation permit application incorporates by reference all the applicable administrative, facility-wide and emission unit specific requirements and standard conditions in the Construction Permit PSD-FL-353. Additionally, the insignificant activities list has been included. Through this application package FMPA is requesting the:

1. Incorporation of Construction Permit PSD-353 that permitted the construction of the TCEC subject to requested changes identified in Section 3.0, below.
2. Incorporation of the Insignificant Activities and Trivial Activities List.
3. Incorporation of latest Acid Rain forms. With the vacatur of the Clean Air Interstate Rule (CAIR) and the Clean Air Mercury Rule (CAMR) at the federal level, these programs are presumed to be not applicable at the State level.
4. Deletion of all references to New Source Performance Standards (NSPS) 40 CFR Part 60 Subparts GG and Da. The combined cycle combustion turbine will be subject to

NSPS Subpart KKKK and thus exempt from the requirements of NSPS Subparts GG and Da.

5. Acceptance of the minor differences in the final as-built design of the facility as discussed in Section 4.0.

### 3.0 Requested Changes/Clarifications to Current Construction Permit (PSD-353)

FMPA requests the following changes/clarifications be made to the current construction permit (PSD-353) and subsequently be incorporated into the initial Title V Operation Permit.

1. *Deletion of all references to New Source Performance Standards (NSPS) 40 CFR Part 60 Subparts GG and Da. The combined cycle combustion turbine will be subject to NSPS Subpart KKKK and thus exempt from the requirements of NSPS Subparts GG and Da, respectively.*

- Page 2, Section I – General Information, Regulatory Classification, NSPS

**Current Wording:**

NSPS: Unit 1 is subject to 40 CFR 60, Subparts GG (Standards of Performance for Stationary Gas Turbines) and Da (Standards of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978). When the proposed NSPS Subpart KKKK (Standards of Performance for Stationary Combustion Turbines for Which Construction is Commenced After February 18, 2005) becomes final, the facility may be subject to Subpart KKKK, and may no longer be subject to subparts GG and Da. The distillate fuel oil tank has a capacity greater than or equal to 40,000 gallons (151 cubic meters) and is storing a liquid with a maximum true vapor pressure less than 3.5 kPa, and is therefore not subject to Subpart Kb.

**Suggested Wording:**

NSPS: Unit 1 (and its associated duct burners) is subject to 40 CFR 60, Subpart KKKK (Standards of Performance for Stationary Combustion Turbines for Which Construction is Commenced After February 18, 2005). The distillate fuel oil tank has a capacity greater than or equal to 40,000 gallons (151 cubic meters) and is storing a liquid with a maximum true vapor pressure less than 3.5 kPa, and is

therefore not subject to Subpart Kb. The emergency fire pump diesel engine and the safe shutdown diesel generator are subject to 40 CFR 60, Subpart IIII – NSPS for Stationary Compression Ignition Internal Combustion Engines.

- Page 3, Section I – General Information, Appendices  
Delete references to Appendix Da and Appendix GG and replace with a reference to Appendix KKKK - NSPS Subpart KKKK Requirements for Gas Turbines and Duct Burners. Additionally, delete actual Appendices Da and GG add an Appendix KKKK to the Appendices Section as done in similar combustion turbine construction permits subject to such NSPS.

- Page 5, Section III – Emissions Units Specific Conditions, A. Unit 1 Combined Cycle Gas Turbine (EU 001)

**Current Wording:**

2. NSPS Requirements: The combustion turbine shall comply with all applicable requirements of 40 CFR 60, listed below, adopted by reference in Rule 62-204.800(7)(b), F.A.C. The Department determines that compliance with the BACT emissions performance requirements also assures compliance with the New Source Performance Standards for Subpart Da, Subpart GG, and Subpart KKKK (as proposed). Some separate reporting and monitoring may be required by the individual subparts.

(a) Subpart A, General Provisions, including:

- 40 CFR 60.7, Notification and Record Keeping
- 40 CFR 60.8, Performance Tests
- 40 CFR 60.11, Compliance with Standards and Maintenance Requirements
- 40 CFR 60.12, Circumvention
- 40 CFR 60.13, Monitoring Requirements
- 40 CFR 60.19, General Notification and Reporting Requirements

(b) Subpart Da, Standards of Performance for Electric Utility Steam Generating Units: These provisions include standards for duct burners.

(c) Subpart GG, Standards of Performance for Stationary Gas Turbines:  
These provisions include a requirement to correct test data to ISO conditions; however, such correction is not used for compliance determinations with the BACT standards.

(d) Subpart KKKK, Standards of Performance for Stationary Gas Turbines:

These provisions were published February 18, 2005 as a proposed new NSPS standard. The final rule may be applicable to Unit 1 at the time of publication in the Federal Register. When the rule becomes final, Unit 1 may no longer be subject to NSPS Subparts Da and GG.

**Suggested Wording:**

2. NSPS Requirements: The combustion turbine shall comply with all applicable requirements of 40 CFR 60, listed below, adopted by reference in Rule 62-204.800(7)(b), F.A.C. The Department determines that compliance with the BACT emissions performance requirements also assures compliance with the NSPS for Subpart KKKK. Some separate reporting and monitoring may be required by these subparts.

(a) Subpart A, General Provisions, including:

- 40 CFR 60.7, Notification and Record Keeping
- 40 CFR 60.8, Performance Tests
- 40 CFR 60.11, Compliance with Standards and Maintenance Requirements
- 40 CFR 60.12, Circumvention
- 40 CFR 60.13, Monitoring Requirements
- 40 CFR 60.19, General Notification and Reporting Requirements

(b) Subpart KKKK, Standards of Performance for Stationary Gas Turbines: These provisions include standards for combustion gas turbines and duct burners.

- Page 8, Section III – Emissions Units Specific Conditions, A. Unit 1 Combined Cycle Gas Turbine (EU 001), 13. Emissions Standards, Footnote b. (Also appears as footnote b in Appendix BD).

**Current Wording:**

<sup>b</sup> Continuous compliance with the 24-hr NO<sub>x</sub> standards shall be demonstrated based on data collected by the required CEMS. The initial and annual EPA Method 7E or Method 20 tests associated with demonstration of compliance with 40 CFR 60, Subpart GG or certification and quality assurance of the CEMS instruments may also be used to demonstrate compliance with the individual standards for natural gas, fuel oil, and duct burner modes during the time of those tests. NO<sub>x</sub> mass emission rates are defined as oxides of nitrogen expressed as NO<sub>2</sub>.

**Suggested Wording:**

<sup>b</sup>. Continuous compliance with the 24-hr NO<sub>x</sub> standards shall be demonstrated based on data collected by the required CEMS. The initial and annual EPA Method 7E or Method 20 tests associated with demonstration of compliance with 40 CFR 60, Subpart KKKK or certification of the CEMS instruments shall also be used to demonstrate compliance with the individual standards for normal natural gas and duct burner modes during the time of those tests. NO<sub>x</sub> mass emission rates are defined as oxides of nitrogen expressed as nitrogen dioxide (NO<sub>2</sub>).

- Page 14, Section III – Emissions Units Specific Conditions, A. Unit 1 Combined Cycle Gas Turbine (EU 001), 32. Excess Emissions Reporting, Conditions b., c., and Note:

**Current Wording:**

b. *SIP Quarterly Report*: Within 30 days following the end of each calendar-quarter, the permittee shall submit a report to the Compliance Authority summarizing periods of CO and NO<sub>x</sub> emissions in excess of the BACT permit standards following the NSPS format in 40 CFR 60.7(c), Subpart A. Periods of startup, shutdown and malfunction, shall be monitored, recorded and reported as excess emissions when emission levels exceed the standards specified in this permit. In addition, the report shall summarize the CEMS systems monitor availability for the previous quarter.

c. *NSPS Semi-Annual Reports*: For purposes of reporting emissions in excess of NSPS Subpart GG, excess emissions from the gas turbine are defined as: any operating hour in which the CEMS 4-hr rolling average NO<sub>x</sub> concentration exceeds the NSPS NO<sub>x</sub> emissions standard identified in Appendix GG; and any monitoring period during which the sulfur content of the fuel being fired in the gas turbine exceeds the NSPS standard identified in Appendix GG. For purposes of reporting emissions in excess of NSPS Subpart Da, excess emissions from duct firing are defined as: NO<sub>x</sub> or PM emissions in excess of the NSPS standards except during periods of startup, shutdown, or malfunction; and SO<sub>2</sub> emissions in excess of the NSPS standards except during startup or shutdown. Within thirty (30) days following each calendar semi-annual period, the permittee shall submit a report on any periods of excess emissions that occurred during the previous semi-annual period to the Compliance Authority. This also includes reporting any periods of excess emissions as applicable and defined by NSPS Subpart KKKK when the rule is finalized.

*{Note: If there are no periods of excess emissions as defined in NSPS Subparts GG, Da, or KKKK, a statement to that effect may be submitted with the SIP Quarterly Report to suffice for the NSPS Semi-Annual Report}*

[Rules 62-4.130, 62-204.800, 62-210.700(6), F.A.C, and 40 CFR 60.7, and 60.332(j)(1)]

**Suggested Wording:**

- b. *SIP Semi-Annual Report:* Within 30 days following the end of each reporting period, the permittee shall submit a report to the Compliance Authority summarizing periods of CO and NO<sub>x</sub> emissions in excess of the BACT permit standards following the NSPS format in 40 CFR 60.7(c), Subpart A. Periods of startup, shutdown and malfunction, shall be monitored, recorded and reported as excess emissions when emission levels exceed the standards specified in this permit. In addition, the report shall summarize the CEMS systems monitor availability for the previous period.
- c. *NSPS Semi-Annual Excess Emissions Reports:* Within thirty (30) days following each calendar semi-annual period, the permittee shall submit a report on any periods of excess emissions above the applicable NSPS limit that occurred during the previous semi-annual period to the Compliance Authority.

*{Note: If there are no periods of excess emissions as defined in NSPS Subpart KKKK, a statement to that effect may be submitted with the SIP Semi-Annual Report to suffice for the NSPS Semi-Annual Report.}*

[Rules 62-4.130, 62-204.800, 62-210.700(6), F.A.C, and 40 CFR 60.7]

2. *FMPA requests a rewording of permit paragraph 18. Excess Emissions Allowed to provide clarification of the intent of the article. The 24 hour period is defined and the listing of each allowed excess emission situation as a subparagraph provides clarity that these situations are additive and not mutually exclusive.*

**Current Wording:**

18. Excess Emissions Allowed: Excess emissions resulting from startup, shutdown, and documented malfunctions shall be permitted, provided that operators employ the best operational practices to minimize the amount and duration of emissions



during such incidents. For the gas turbine/HRSG system, excess emissions resulting from startup, shutdown, or documented malfunctions shall not exceed two hours in any 24-hour period except for the following specific cases. A "documented malfunction" means a malfunction that is documented within one working day of detection by contacting the Compliance Authority by telephone, facsimile transmittal, or electronic mail.

- a. *Steam Turbine/HRSG System Cold Startup*: For cold startup of the steam turbine/HRSG system, excess emissions from the gas turbine/HRSG system shall not exceed six hours in any 24-hour period. A "cold startup of the steam turbine/HRSG system" is defined as startup of the combined cycle system following a shutdown of the steam turbine lasting at least 48 hours.  
*(Permitting Note: During a cold startup of the steam turbine system, the gas turbine/HRSG system is brought on line at low load to gradually increase the temperature of the steam-electrical turbine and prevent thermal metal fatigue)*
- b. *Steam Turbine/HRSG System Warm Startup*: For warm startup of the steam turbine/HRSG system, excess emissions shall not exceed four hours in any 24-hour period. A "warm startup of the steam turbine/HRSG system" is defined as a startup of the combined cycle system following a shutdown of the steam turbine lasting at least 8 hours and less than 48 hours.
- c. *Shutdown*: For shutdown of the combined cycle operation, excess emissions from the gas turbine/HRSG system shall not exceed three hours in any 24-hour period.
- d. *Fuel Switching*: Excess emissions due to oil-to-gas fuel switching shall not exceed 1 hour in any 24-hour period.

**Suggested Wording:**

18. Excess Emissions Allowed: Excess emissions resulting from startup, shutdown, and documented malfunctions shall be permitted, provided that operators employ the best operational practices to minimize the amount and duration of emissions during such incidents. For the CTG/HRSG system, allowed excess emissions resulting from startup, shutdown, or documented malfunctions shall not exceed the following specified time periods in any 24-hour period (for purposes of this condition, "any 24-hour period" means a calendar day, midnight to midnight):

- a. *STG/HRSG System Cold Startup*: For cold startup of the STG/HRSG system, excess emissions from the CTG/HRSG system shall not exceed six hours in any 24-hour period. A "cold startup of the STG/HRSG system" is defined as startup of the combined cycle system following a shutdown of the steam turbine lasting at least 48 hours.

*{Permitting Note: During a cold startup of the steam turbine system, the CTG/HRSG system is brought on line at low load to gradually increase the temperature of the STG and prevent thermal metal fatigue}*

- b. *STG/HRSG System Warm Startup:* For warm startup of the STG/HRSG system, excess emissions shall not exceed four hours in any 24-hour period. A “warm startup of the STG/HRSG system” is defined as a startup of the combined cycle system following a shutdown of the steam turbine lasting at least 8 hours and less than 48 hours.
  - c. *STG/HRSG System Hot Startup:* For hot startup of the STG/HRSG system, excess emissions shall not exceed two hours in any 24-hour period. A “hot startup of the STG/HRSG system” is defined as a startup of the combined cycle system following a shutdown of the steam turbine lasting less than 8 hours.
  - d. *Shutdown:* For shutdown of the combined cycle operation, excess emissions from the CTG/HRSG system shall not exceed three hours in any 24-hour period.
  - e. *Fuel Switching:* Excess emissions due to oil-to-gas fuel switching shall not exceed 1 hour in any 24- hour period.
  - f. *Documented Malfunction:* For the CTG/HRSG system, excess emissions resulting from documented malfunctions shall not exceed two hours in any 24-hour period. A “documented malfunction” means a malfunction that is documented within one working day of detection by contacting the Compliance Authority by telephone, facsimile transmittal, or electronic mail.
3. *FMPA requests that the Fuel Oil Storage Tank (EU 002) be treated as an insignificant activity since it is not subject to any federal or state emission limits. Therefore, Section III – Emissions Units Specific Conditions, B. Fuel Oil Storage Tank (EU 002) can be deleted. Also, change all occurrences of 990,000 gallon storage tank to 930,000 gallon storage tank to reflect that which was installed.*
  4. *Miscellaneous Permit Clarifications*
    - Page 7, Section III – Emissions Units Specific Conditions, A. Unit 1 Combined Cycle Gas Turbine (EU 001), 13. Emissions Standards.

**Current Table:**

Pollutant	Fuel	Method of Operation	Stack Test, 3-Run Average		CEMS Average
			ppmvd @ 15% O <sub>2</sub>	lb/hr <sup>f</sup>	ppmvd @ 15% O <sub>2</sub>
CO <sup>a</sup>	Oil	Combustion Turbine (CT)	8.0	37.8	8.0, 24-h block
		CT & Duct Burner (DB)	8.0	47.3	
	Gas	CT, Normal	4.1	16.2	
		CT & (DB)	7.6	39.1	
	Oil/Gas	All Modes	NA	NA	6.0, 12-month
NO <sub>x</sub> <sup>b</sup>	Oil	CT	8.0	62.0	8.0, 24-h block
		CT & DB	8.0	78.0	
	Gas	CT, Normal	2.0	13.1	2.0, 24-h block
		CT & DB	2.0	16.9	
PM/PM <sub>10</sub> <sup>c</sup>	Oil/Gas	All Modes	0.0015% sulfur fuel oil, 2 gr S/100 SCF of gas Visible emissions shall not exceed 10% opacity for each 6-minute block average.		
SAM/SO <sub>2</sub> <sup>d</sup>	Oil/Gas	All Modes	0.0015% sulfur fuel oil, 2 gr S/100 SCF of gas		
Ammonia <sup>e</sup>	Oil/Gas	CT, All Modes	5.0	NA	NA

- a. Continuous compliance with the 24-hour and 12-month CO standards shall be demonstrated based on data collected by the required CEMS. The initial and annual EPA Method 10 tests associated with the certification and quality assurance of the CEMS instruments may also be used to demonstrate compliance with the individual standards for natural gas, fuel oil, and basic duct burner mode.
- b. Continuous compliance with the 24-hr NOX standards shall be demonstrated based on data collected by the required CEMS. The initial and annual EPA Method 7E or Method 20 tests associated with demonstration of compliance with 40 CFR 60, Subpart GG or certification and quality assurance of the CEMS instruments may also be used to demonstrate compliance with the individual standards for natural gas, fuel oil, and duct burner modes during the time of those tests. NOX mass emission rates are defined as oxides of nitrogen expressed as NO2.
- c. The fuel sulfur specifications, established in Condition No. 11 of this section, combined with the efficient combustion design and operation of the gas turbine represents (BACT) for PM/PM10 emissions. Compliance with the fuel specifications, CO standards, and visible emissions standards shall serve as indicators of good combustion. Compliance with the fuel specifications shall be determined by the requirements in Condition No. 30 of this section. Compliance with the visible emissions standard shall be demonstrated by conducting tests in accordance with EPA Method 9.
- d. The fuel sulfur specifications, established in Condition No. 11 this section, effectively limit the potential emissions of SAM and SO2 from the gas turbine and represent BACT for these pollutants. Compliance with the fuel sulfur specifications shall be determined by the requirements in Condition No. 30 of this section.
- e. The SCR system shall be designed and operated for an ammonia slip limit of no more than 5 ppmvd corrected to 15% O2 based on the average of three test runs.
- f. The mass emission rate standards are based on a turbine inlet condition of 59°F, evaporative cooling on, and using the HHV of the fuel. Mass emission rate may be adjusted from actual test conditions in accordance with the performance curves and/or equations on file with the Department.

**Suggested Table (these changes also apply to the Table in Appendix BD):**

Pollutant	Fuel	Method of Operation	Stack Test, 3-Run Average		CEMS Average
			ppmvd @ 15% O <sub>2</sub>	lb/hr <sup>f</sup>	ppmvd @ 15% O <sub>2</sub>
CO <sup>a</sup>	Oil	Combustion Turbine (CT) <u>(w/o DB)</u>	8.0	37.8	8.0, 24-h block
		CT & Duct Burner (DB)	8.0	47.3	
	Gas	CT, Normal <u>(w/o DB)</u>	4.1	16.2	
		CT & (DB)	7.6	39.1	
	Oil/Gas	All Modes	NA	NA	6.0, 12-month <u>rolling</u>
NO <sub>x</sub> <sup>b</sup>	Oil	CT <u>(w/o DB)</u>	8.0	62.0	8.0, 24-h block
		CT & DB	8.0	78.0	42 <u>30-day rolling</u> <sup>e</sup>
	Gas	CT, Normal <u>(w/o DB)</u>	2.0	13.1	2.0, 24-h block
		CT & DB	2.0	16.9	15 <u>30-day rolling</u> <sup>e</sup>
PM/PM <sub>10</sub> <sup>c</sup>	Oil/Gas	All Modes	0.0015% sulfur fuel oil, 2 gr S/100 SCF of gas		Visible emissions shall not exceed 10% opacity for each 6-minute block average.
SAM/SO <sub>2</sub> <sup>d</sup>	Oil/Gas	All Modes	0.0015% sulfur fuel oil, 2 gr S/100 SCF of gas		
Ammonia <sup>e</sup>	Oil/Gas	CT, All Modes	5.0	NA	NA

- a. Continuous compliance with the 24-hour and 12-month CO standards shall be demonstrated based on data collected by the required CEMS. The initial and annual EPA Method 10 tests associated with the certification and quality assurance of the CEMS instruments may also be used to demonstrate compliance with the individual standards for natural gas, fuel oil, and basic duct burner mode.
- b. Continuous compliance with the 24-hr NO<sub>x</sub> standards shall be demonstrated based on data collected by the required CEMS. The initial and annual EPA Method 7E or Method 20 tests associated with demonstration of compliance with 40 CFR 60, Subpart KKKK or certification of the CEMS instruments shall also be used to demonstrate compliance with the individual standards for normal natural gas and duct burner modes during the time of those tests. NO<sub>x</sub> mass emission rates are defined as oxides of nitrogen expressed as nitrogen dioxide (NO<sub>2</sub>).
- c. The fuel sulfur specifications, established in Condition No. 11 of this section, combined with the efficient combustion design and operation of the gas turbine represents (BACT) for PM/PM10 emissions. Compliance with the fuel specifications, CO standards, and visible emissions standards shall serve as indicators of good combustion. Compliance with the fuel specifications shall be determined by the requirements in Condition No. 30 of this section. Compliance with the visible emissions standard shall be demonstrated by conducting tests in accordance with EPA Method 9.
- d. The fuel sulfur specifications, established in Condition No. 11 this section, effectively limit the potential emissions of SAM and SO2 from the gas turbine and represent BACT for these pollutants. Compliance with the fuel sulfur specifications shall be determined by the requirements in Condition No. 30 of this section.
- e. The SCR system shall be designed and operated for an ammonia slip limit of no more than 5 ppmvd corrected to 15% O2 based on the average of three test runs.
- f. The mass emission rate standards are based on a turbine inlet condition of 59°F, evaporative cooling on, and using the HHV of the fuel. Mass emission rate may be adjusted from actual test conditions in accordance with the performance curves and/or equations on file with the Department.

g. Compliance with the 40 CFR 60. NSPS. Subpart KKKK as described in 60.4380(b)(1). Startup, shutdown, and malfunction emissions are to be included in the 30-day rolling average calculations. Continuous compliance is not required by Subpart KKKK.

- Page 12, Section III – Emissions Units Specific Conditions, A. Unit 1 Combined Cycle Gas Turbine (EU 001), 26. CEMS Data Requirements., a. *Data Collection.* – *Revise language to indicate compliance is for BACT emission limits and not for NSPS and f. Availability.* – *Revise language to reflect compliance with 40 CFR Part 75.*

**Current Wording:**

**26. CEMS Data Requirements:**

- a. *Data Collection:* Emissions shall be monitored and recorded at all times including startup, operation, shutdown, and malfunction except for continuous monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments. The CEMS shall be designed and operated to sample, analyze, and record data evenly spaced over an hour. If the CEMS measures concentration on a wet basis, the CEM system shall include provisions to determine the moisture content of the exhaust gas and an algorithm to enable correction of the monitoring results to a dry basis (0% moisture). Alternatively, the owner or operator may develop through manual stack test measurements a curve of moisture contents in the exhaust gas versus load for each allowable fuel, and use these typical values in an algorithm to enable correction of the monitoring results to a dry basis (0% moisture). Final results of the CEMS shall be expressed as ppmvd corrected to 15% oxygen. The CEMS shall be used to demonstrate compliance with the CEMS emission standards for CO and NO<sub>x</sub> as specified in this permit. For purposes of determining compliance with the CEMS emissions standards of this permit, missing (or excluded) data shall not be substituted. Upon request by the Department, the CEMS emission rates shall be corrected to ISO conditions to demonstrate compliance with the applicable standards of 40 CFR 60.332.
- f. *Availability:* Monitor availability for the CEMS shall be 95% or greater in any calendar quarter. The quarterly excess emissions report shall be used to demonstrate monitor availability. In the event 95% availability is not achieved, the permittee shall provide the Department with a report identifying the problems in achieving 95% availability and a plan of corrective actions that will be taken to achieve 95% availability. The permittee shall implement the reported corrective actions within the next calendar quarter. Failure to take corrective actions or continued failure to achieve the minimum monitor availability shall be violations of this permit, except as otherwise authorized by the Department's Compliance Authority.

**Suggested Wording:**

**26. CEMS Data Requirements (for BACT Limits Only):**

a. *Data Collection:* Emissions shall be monitored and recorded at all times including startup, operation, shutdown, and malfunction except for continuous monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments. The CEMS shall be designed and operated to sample, analyze, and record data evenly spaced over an hour. If the CEMS measures concentration on a wet basis, the CEM system shall include provisions to determine the moisture content of the exhaust gas and an algorithm to enable correction of the monitoring results to a dry basis (0% moisture). Alternatively, the owner or operator may develop through manual stack test measurements a curve of moisture contents in the exhaust gas versus load for each allowable fuel, and use these typical values in an algorithm to enable correction of the monitoring results to a dry basis (0% moisture). Final results of the CEMS shall be expressed as ppmvd corrected to 15% oxygen. The CEMS shall be used to demonstrate compliance with the CEMS emission standards for CO and NOx as specified in this permit. For purposes of determining compliance with the CEMS emissions standards of this permit, missing (or excluded) data shall not be substituted. Compliance with the emissions standards of 40 CFR Part 60 Subpart KKKK is covered in Appendix KKKK.

f. *Availability:* Monitor availability for the CEMS shall be based on performance standards, as set forth in 40 CFR Part 75.

- Page 14, Section III – Emissions Units Specific Conditions, A. Unit 1 Combined Cycle Gas Turbine (EU 001), 33. Annual Operating Report. – *Revise language to reflect rule rather than specific submittal date.*

**Current Wording:**

33. Annual Operating Report: The permittee shall submit an annual report that summarizes the actual operating hours and emissions from this facility. The permittee shall also keep records sufficient to determine the annual throughput of distillate fuel oil for the fuel oil storage tank for use in the Annual Operating Report. Annual operating reports shall be submitted to the Compliance Authority by March 1<sup>st</sup> of each year. [Rule 62-210.370(2), F.A.C]

**Suggested Wording:**

33. Annual Operating Report: The permittee shall submit an annual report that summarizes the actual operating hours and emissions from this facility. The permittee shall also keep records sufficient to determine the annual throughput of distillate fuel oil for the fuel oil storage tank for use in the Annual

Operating Report. Annual operating reports shall be submitted to the Compliance Authority as required by Rule 62-210.370(2), F.A.C which is currently March 1<sup>st</sup> of each year.

- Page 17, Section III – Emissions Units Specific Conditions, D. Safe Shutdown Generator (EU 004), NSPS Applicability. – *Revise language to indicate applicability of Subpart III.*

**Current Wording:**

NSPS Subpart IIII Applicability: The emergency generator is a Stationary Compression Ignition Internal Combustion Engines (Stationary ICE) and may be subject to 40 CFR 60, Subpart IIII at the time the proposed rule becomes final.

The emergency generator shall comply with 40 CFR 60, Subpart IIII only to the extent that the regulations apply to the emissions unit and its operations.

[40 CFR 60, NSPS-Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines; Proposed Rule- Federal Register / Vol. 70, No. 131 / July 11, 2005. Pages 39869-39904].

**Suggested Wording:**

NSPS Subpart IIII Applicability: The safe shutdown generator is a Stationary Compression Ignition Internal Combustion Engines (Stationary ICE) and is subject to 40 CFR 60, Subpart IIII. [40 CFR 60, Subpart IIII – NSPS for Stationary ICE]

- Page 18, Section III – Emissions Units Specific Conditions, E. Diesel Fire Pump (EU 005), NSPS Applicability. – *Revise language to indicate applicability of Subpart III.*

**Current Wording:**

NSPS Subpart IIII Applicability: The fire pump engine is an Emergency Stationary Compression Ignition Internal Combustion Engines (Stationary ICE) and may be subject to 40 CFR 60, Subpart IIII at the time the proposed rule becomes final.

The fire pump engine shall comply with 40 CFR 60, Subpart IIII only to the extent that the regulations apply to the emissions unit and its operations.

[40 CFR 60, NSPS-Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines; Proposed Rule- Federal Register / Vol. 70, No. 131 / July 11, 2005. Pages 39869-39904].

**Suggested Wording:**

NSPS Subpart IIII Applicability: The fire pump engine is an Emergency Stationary Compression Ignition Internal Combustion Engine (ICE) and is subject to 40 CFR 60, Subpart IIII. It shall comply with 40 CFR 60, Subpart IIII only to the extent that the regulations apply to the emissions unit and its operations (e.g. fire pumps, horsepower, and model year selected). [40 CFR 60, Subpart IIII – NSPS Stationary Compression Ignition ICE]

#### **4.0 Minor Differences in As-Built Design Versus Construction Permit Application**

As is common with projects of this scale, minor differences often occur between the air permit application phase and the final as-built design of the facility. These differences typically center around what is received from vendors as initial estimates during the permit application phase and what is actually purchased at a later date during the construction phase. The following such minor differences have been noted for TCEC:

- Change in the Heat Recovery Steam Generator (HRSG) stack diameter from 18 feet to 19 feet.
- Change in the diameter of the cooling tower fans from 32 feet to 30 feet.
- Changes in the diesel engine fire pump size due to the actual unit purchased from 300 bhp to 290 bhp.
- Changes in the safe shutdown generator size due to the actual unit purchased from 1,525 bhp to 1,102 bhp.

The above information is appropriately reflected in the following application forms. Additionally, in order to demonstrate that these minor differences do not adversely affect the facility's ambient air quality impact, the air dispersion modeling will be rerun to demonstrate continued compliance with the PSD Significant Impact Levels. The air dispersion modeling demonstration is forthcoming and will be submitted under a separate cover.



**FDEP Application Forms**



# Department of Environmental Protection

## Division of Air Resource Management

### APPLICATION FOR AIR PERMIT - LONG FORM

#### 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 Municipal Power Agency	
2. Site Name: Treasure Coast Energy Center	
3. Facility Identification Number: 1110121	
4. Facility Location... Street Address or Other Locator: 4545 Energy Lane City: Fort Pierce                      County: St. Lucie                      Zip Code: 34981	
5. Relocatable Facility? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6. Existing Title V Permitted Facility? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

#### Application Contact

1. Application Contact Name: Susan Schumann	
2. Application Contact Mailing Address... Organization/Firm: Florida Municipal Power Agency Street Address: 8553 Commodity Circle City: Orlando                      State: FL                      Zip Code: 32819	
3. Application Contact Telephone Numbers... Telephone: ( 407 ) 355 – 7767      ext.      Fax: ( 407 ) 355 – 5794	
4. Application Contact E-mail Address: susan.schumman@fmpa.com	

#### Application Processing Information (DEP Use)

1. Date of Receipt of Application: 8-11-08	3. PSD Number (if applicable): PSD-FL-353A
2. Project Number(s): 1110121-002-AV 1110121-003-AC	4. Siting Number (if applicable):

## APPLICATION INFORMATION

### 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 [actually minor revisions to the air construction permit and an initial Title V air operation permit].
- 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

This is the initial Title V air operation permit, but this application is also requesting concurrent processing of minor changes to the air construction permit including the removal of 40 CFR Subpart GG and Da requirements and insertion of Subpart KKKK requirements in their place for Unit 1.

**APPLICATION INFORMATION**

**Scope of Application**

<b>Emissions Unit ID Number</b>	<b>Description of Emissions Unit</b>	<b>Air Permit Type</b>	<b>Air Permit Processing Fee</b>
001	Unit 1 – GE PG7241 FA Combustion Turbine	NA	NA
003	Mechanical Draft Cooling Tower	NA	NA
004	Safe Shutdown Generator	NA	NA
005	Diesel Engine Fire Pump	NA	NA

**Application Processing Fee**

Check one:  Attached - Amount: \$ \_\_\_\_\_  Not Applicable

## APPLICATION INFORMATION

### Owner/Authorized Representative Statement

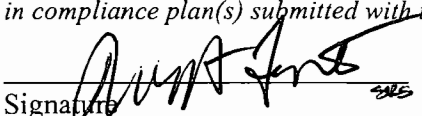
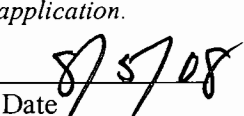
**Complete if applying for an air construction permit or an initial FESOP.**

1. Owner/Authorized Representative Name :
2. Owner/Authorized Representative Mailing Address... Organization/Firm: Street Address: City: State: Zip Code:
3. Owner/Authorized Representative Telephone Numbers... Telephone: ( ) – ext. Fax: ( ) –
4. Owner/Authorized Representative E-mail Address:
5. Owner/Authorized Representative Statement:  <i>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.</i>  _____ Signature Date

## APPLICATION INFORMATION

### 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: Roger Fontes – General Manager and CEO
2. Application Responsible Official Qualification (Check one or more of the following options, as applicable): <input type="checkbox"/> 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. <input type="checkbox"/> For a partnership or sole proprietorship, a general partner or the proprietor, respectively. <input checked="" type="checkbox"/> For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official. <input type="checkbox"/> The designated representative at an Acid Rain source, CAIR source, or Hg Budget source.
3. Application Responsible Official Mailing Address... Organization/Firm: Florida Municipal Power Authority Street Address: 8553 Commodity Circle City: Orlando State: FL Zip Code: 32819
4. Application Responsible Official Telephone Numbers... Telephone: (407) 355- 7767 ext. Fax: (407) 355-5794
5. Application Responsible Official E-mail Address: roger.fontes@fmpe.com
6. Application Responsible Official Certification: <i>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.</i>  Signature:  Date: 

**APPLICATION INFORMATION**

**Professional Engineer Certification**

1. Professional Engineer Name: Stanley A. Armbruster, P.E. Registration Number: 30562
2. Professional Engineer Mailing Address... Organization/Firm: Black & Veatch Street Address: 11401 Lamar Avenue City: Overland Park State: KS Zip Code: 66211
3. Professional Engineer Telephone Numbers... Telephone: (913) 458-2763 ext. Fax: (913) 458-2934
4. Professional Engineer E-mail Address: ArmbrusterSA@bv.com
5. Professional Engineer Statement: <i>I, the undersigned, hereby certify, except as particularly noted herein*, that:</i>  (1) <i>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</i>  (2) <i>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.</i>  (3) <i>If the purpose of this application is to obtain a Title V air operation permit (check here <input checked="" type="checkbox"/>, 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.</i>  (4) <i>If the purpose of this application is to obtain an air construction permit (check here <input type="checkbox"/>, 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 <input checked="" type="checkbox"/>, 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.</i>  (5) <i>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 <input checked="" type="checkbox"/>, 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.</i>  Signature: <u>Stanley A. Armbruster</u> Date: <u>8/5/08</u> 30562

\* Attach any exception to certification statement.

**II. FACILITY INFORMATION**

**A. GENERAL FACILITY INFORMATION**

**Facility Location and Type**

1. Facility UTM Coordinates... Zone 561.5161 East (km) 3028.9963 North (km)		2. Facility Latitude/Longitude... Latitude (DD/MM/SS) Longitude (DD/MM/SS)	
3. Governmental Facility Code: 4	4. Facility Status Code: A	5. Facility Major Group SIC Code: 49	6. Facility SIC(s):  4911
7. Facility Comment :			

**Facility Contact**

1. Facility Contact Name: Ed Leongomez
2. Facility Contact Mailing Address... Organization/Firm: Florida Municipal Power Agency Street Address: 8553 Commodity Circle City: Orlando State: FL Zip Code: 32819
3. Facility Contact Telephone Numbers: Telephone: ( 407 ) 355 – 7767 ext. Fax: ( 407 ) 355 – 5794
4. Facility Contact E-mail Address: eleongomez@fpua.com

**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 Official Name:
2. Facility Primary Responsible Official Mailing Address... Organization/Firm: Street Address: City: State: Zip Code:
3. Facility Primary Responsible Official Telephone Numbers... Telephone: ( ) - ext. Fax: ( ) -
4. Facility Primary Responsible Official E-mail Address:



## 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.”

1. <input type="checkbox"/> Small Business Stationary Source	<input type="checkbox"/> Unknown
2. <input type="checkbox"/> Synthetic Non-Title V Source	
3. <input checked="" type="checkbox"/> Title V Source	
4. <input checked="" type="checkbox"/> Major Source of Air Pollutants, Other than Hazardous Air Pollutants (HAPs)	
5. <input type="checkbox"/> Synthetic Minor Source of Air Pollutants, Other than HAPs	
6. <input type="checkbox"/> Major Source of Hazardous Air Pollutants (HAPs)	
7. <input type="checkbox"/> Synthetic Minor Source of HAPs	
8. <input checked="" type="checkbox"/> One or More Emissions Units Subject to NSPS (40 CFR Part 60)	
9. <input type="checkbox"/> One or More Emissions Units Subject to Emission Guidelines (40 CFR Part 60)	
10. <input type="checkbox"/> One or More Emissions Units Subject to NESHAP (40 CFR Part 61 or Part 63)	
11. <input type="checkbox"/> Title V Source Solely by EPA Designation (40 CFR 70.3(a)(5))	
12. Facility Regulatory Classifications Comment:	

# FACILITY INFORMATION

## List of Pollutants Emitted by Facility

1. Pollutant Emitted	2. Pollutant Classification	3. Emissions Cap [Y or N]?
CO	A	N
NOX	B	N
PM	A	N
PM10	A	N
SO2	B	N
VOC	B	N
SAM	B	N

**FACILITY INFORMATION**

**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 ID's Under Cap (if not all units)	4. Hourly Cap (lb/hr)	5. Annual Cap (ton/yr)	6. Basis for Emissions Cap

7. Facility-Wide or Multi-Unit Emissions Cap Comment:

## 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) <input checked="" type="checkbox"/> Attached, Document ID: <u>Attachment A</u> <input type="checkbox"/> 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) <input checked="" type="checkbox"/> Attached, Document ID: <u>Attachment B</u> <input type="checkbox"/> 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) <input checked="" type="checkbox"/> Attached, Document ID: <u>Attachment C</u> <input type="checkbox"/> Previously Submitted, Date: _____

#### Additional Requirements for Air Construction Permit Applications

1. Area Map Showing Facility Location: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable (existing permitted facility)
2. Description of Proposed Construction, Modification, or Plantwide Applicability Limit (PAL): <input type="checkbox"/> Attached, Document ID: _____
3. Rule Applicability Analysis: <input type="checkbox"/> Attached, Document ID: _____
4. List of Exempt Emissions Units: <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable (no exempt units at facility)
5. Fugitive Emissions Identification: <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
6. Air Quality Analysis (Rule 62-212.400(7), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
7. Source Impact Analysis (Rule 62-212.400(5), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
8. Air Quality Impact since 1977 (Rule 62-212.400(4)(e), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
9. Additional Impact Analyses (Rules 62-212.400(8) and 62-212.500(4)(e), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
10. Alternative Analysis Requirement (Rule 62-212.500(4)(g), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable

**FACILITY INFORMATION**

**C. FACILITY ADDITIONAL INFORMATION (CONTINUED)**

**Additional Requirements for FESOP Applications**

1. List of Exempt Emissions Units: <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable (no exempt units at facility)
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**Additional Requirements for Title V Air Operation Permit Applications**

1. List of Insignificant Activities: (Required for initial/renewal applications only) <input checked="" type="checkbox"/> Attached, Document ID <u>Attachment D</u> <input type="checkbox"/> 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) <input checked="" type="checkbox"/> Attached, Document ID: <u>Attachment E</u> <input type="checkbox"/> Not Applicable (revision application with no change in applicable requirements)
3. Compliance Report and Plan: (Required for all initial/revision/renewal applications) <input checked="" type="checkbox"/> Attached, Document ID: <u>Attachment F</u> 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) <input checked="" type="checkbox"/> Attached, Document ID: <u>Attachment G</u> <input type="checkbox"/> Equipment/Activities Onsite but Not Required to be Individually Listed <input type="checkbox"/> Not Applicable
5. Verification of Risk Management Plan Submission to EPA: (If applicable, required for initial/renewal applications only) <input checked="" type="checkbox"/> Attached, Document ID: <u>Attachment H</u> <input type="checkbox"/> Not Applicable
6. Requested Changes to Current Title V Air Operation Permit: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

**FACILITY INFORMATION**

**C. FACILITY ADDITIONAL INFORMATION (CONTINUED)**

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

<p>1. Acid Rain Program Forms:</p> <p>Acid Rain Part Application (DEP Form No. 62-210.900(1)(a)):</p> <p><input checked="" type="checkbox"/> Attached, Document ID: <u>Attachment P</u>    <input checked="" type="checkbox"/> Previously Submitted, Date: <u>July 31, 2006</u></p> <p><input type="checkbox"/> Not Applicable (not an Acid Rain source)</p> <p>Phase II NO<sub>x</sub> Averaging Plan (DEP Form No. 62-210.900(1)(a)1.):</p> <p><input type="checkbox"/> Attached, Document ID: _____    <input type="checkbox"/> Previously Submitted, Date: _____</p> <p><input type="checkbox"/> Not Applicable</p> <p>New Unit Exemption (DEP Form No. 62-210.900(1)(a)2.):</p> <p><input type="checkbox"/> Attached, Document ID: _____    <input type="checkbox"/> Previously Submitted, Date: _____</p> <p><input type="checkbox"/> Not Applicable</p>
<p>2. CAIR Part (DEP Form No. 62-210.900(1)(b)):</p> <p><input type="checkbox"/> Attached, Document ID: _____    <input type="checkbox"/> Previously Submitted, Date: _____</p> <p><input checked="" type="checkbox"/> Not Applicable (not a CAIR source) – <b>CAIR Vacated at Federal Level</b></p>
<p>3. Hg Budget Part (DEP Form No. 62-210.900(1)(c)):</p> <p><input type="checkbox"/> Attached, Document ID: _____    <input type="checkbox"/> Previously Submitted, Date: _____</p> <p><input checked="" type="checkbox"/> Not Applicable (not a Hg Budget unit)</p>

**Additional Requirements Comment**

## EMISSIONS UNIT INFORMATION

Section [1] of [4]

### III. EMISSIONS UNIT INFORMATION

**Title V Air Operation Permit Application** - For Title V air operation permitting only, emissions units are classified as regulated, unregulated, or insignificant. If this is an application for an initial, revised or renewal Title V air operation permit, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each regulated and unregulated emissions unit addressed in this application. Some of the subsections comprising the Emissions Unit Information Section of the form are optional for unregulated emissions units. Each such subsection is appropriately marked. Insignificant emissions units are required to be listed at Section II, Subsection C.

**Air Construction Permit or FESOP Application** - For air construction permitting or federally enforceable state air operation permitting, emissions units are classified as either subject to air permitting or exempt from air permitting. The concept of an "unregulated emissions unit" does not apply. If this is an application for an air construction permit or FESOP, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit subject to air permitting addressed in this application for air permit. Emissions units exempt from air permitting are required to be listed at Section II, Subsection C.

**Air Construction Permit and Revised/Renewal Title V Air Operation Permit Application** - Where this application is used to apply for both an air construction permit and a revised or renewal Title V air operation permit, each emissions unit is classified as either subject to air permitting or exempt from air permitting for air construction permitting purposes, and as regulated, unregulated, or insignificant for Title V air operation permitting purposes. A separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit addressed in this application that is subject to air construction permitting and for each such emissions unit that is a regulated or unregulated unit for purposes of Title V permitting. (An emissions unit may be exempt from air construction permitting but still be classified as an unregulated unit for Title V purposes.) Emissions units classified as insignificant for Title V purposes are required to be listed at Section II, Subsection C.

If submitting the application form in hard copy, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application must be indicated in the space provided at the top of each page.

**EMISSIONS UNIT INFORMATION**

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.)

The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

**Emissions Unit Description and Status**

1. Type of Emissions Unit Addressed in this Section: (Check one)

This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

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.

2. Description of Emissions Unit Addressed in this Section:  
Unit 1 – GE PG7241 FA Combined Cycle Combustion Turbine.

3. Emissions Unit Identification Number: EU001

4. Emissions Unit Status Code: A	5. Commence Construction Date: 08/03/06	6. Initial Startup Date: 02/11/08	7. Emissions Unit Major Group SIC Code: 49
-------------------------------------	--	--------------------------------------	---

8. Federal Program Applicability: (Check all that apply)

Acid Rain Unit

CAIR Unit

Hg Budget Unit

9. Package Unit:  
Manufacturer: GE Model Number: PG7241 FA

10. Generator Nameplate Rating: 170 MW for the CT (approximate):  
130 MW for the STG (approximate)

11. Emissions Unit Comment: The combined cycle combustion turbine includes HRSG duct firing capability.



**EMISSIONS UNIT INFORMATION**

Section [1] of [4]

**Emissions Unit Control Equipment/Method:** Control \_\_\_ of \_\_\_

1. Control Equipment/Method Description: Dry low NO <sub>x</sub> burners in conjunction with selective catalytic reduction is used to control NO <sub>x</sub> emissions when firing natural gas. Water injection in combination with selective catalytic reduction is used to control NO <sub>x</sub> emissions when firing ultra low sulfur fuel oil (ULSFO).
2. Control Device or Method Code: 205, 028, 139

**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:

**EMISSIONS UNIT INFORMATION**

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:		
2. Maximum Production Rate:		
3. Maximum Heat Input Rate: 1,876.8 million Btu/hr (HHV) – CT firing natural gas 2,044.4 million Btu/hr (HHV) – CT firing ULSFO 565.3 million Btu/hr (HHV) – Duct Burner		
4. Maximum Incineration Rate: pounds/hr tons/day		
5. Requested Maximum Operating Schedule:		
CT firing natural gas	24 hours/day	7 days/week
	52 weeks/year	8,760 hours/year
Duct burner firing natural gas	24 hours/day	7 days/week
	52 weeks/year	8,760 hours/year
CT firing ULSFO	24 hours/day	7 days/week
	52 weeks/year	500 hours/year
6. Operating Capacity/Schedule Comment: The unit will be operated between 40 and 100 percent of full load. The maximum heat input rate shown in Field 3 is with operation at 100% load at the site minimum ambient temperature of 26°F. Note that the heat input rate is a function of ambient temperature. As discussed in FDEP Guidance Document DARM-OGG-07, higher CT inlet temperatures will result in a lower heat input rate (MMBtu/hr) and vice versa. Variations of heat input (capacity) are to be expected due to the range of ambient temperatures and humidities encountered at the site. CT operating curves (capacity vs. inlet air temperature) are provided in Attachment O to these forms. It is requested that the permit for this unit include Conditions 1 and 2 of DARM-OGG-07. We request inclusion of the standard permitting note that the heat input rates are provided for informational purposes only and are not intended to be enforceable limits.		

**EMISSIONS UNIT INFORMATION**

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 Plot Plan or Flow Diagram: Heat Recovery Steam Generator Exhaust Stack (EU001)		2. Emission Point Type Code: 1	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking:			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:			
5. Discharge Type Code: V	6. Stack Height: 170 feet		7. Exit Diameter: 19 feet
8. Exit Temperature:	9. Actual Volumetric Flow Rate:	10. Water Vapor:	
11. Maximum Dry Standard Flow Rate:		12. Nonstack Emission Point Height: feet	
13. Emission Point UTM Coordinates... Zone: 17 East (km): 561.5161 North (km): 3028.9963		14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS) Longitude (DD/MM/SS)	
15. Emission Point Comment:			

**EMISSIONS UNIT INFORMATION**

Section [1] of [4]

**D. SEGMENT (PROCESS/FUEL) INFORMATION**

**Segment Description and Rate:** Segment 1 of 3

1. Segment Description (Process/Fuel Type): Natural gas used in the combustion turbine		
2. Source Classification Code (SCC): 20100201		3. SCC Units: Million Cubic Feet Burned
4. Maximum Hourly Rate: 1.93	5. Maximum Annual Rate: 16,907	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit: 970 (HHV)
10. Segment Comment: The maximum fuel input to the combustion turbine is a function of the ambient temperature. The maximum hourly rate given in Field 4 is based on operation at 100% load at the site minimum ambient temperature of 26°F. The maximum natural gas use rate given in Field 5 is based on 100 percent load operation for 8,760 hours per year at the site minimum ambient temperature of 26°F. The fuel use rates do not include duct burner operation.		

**Segment Description and Rate:** Segment 2 of 3

1. Segment Description (Process/Fuel Type): ULSFO used in the combustion turbine		
2. Source Classification Code (SCC): 20100101		3. SCC Units: Thousand gallons burned
4. Maximum Hourly Rate: 14.9	5. Maximum Annual Rate: 7,450	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: 0.0015	8. Maximum % Ash:	9. Million Btu per SCC Unit: 137 (HHV)
10. Segment Comment: The maximum fuel input to the combustion turbine is a function of the ambient temperature. The maximum hourly rate given in Field 4 is based on operation at 100% load at the site minimum ambient temperature of 26°F. The maximum ULSFO use rate given in Field 5 is based on 100 percent load operation for 500 hours per year at the site minimum ambient temperature of 26°F.		

**EMISSIONS UNIT INFORMATION**

Section [1] of [4]

**D. SEGMENT (PROCESS/FUEL) INFORMATION (CONTINUED)**

**Segment Description and Rate:** Segment 3 of 3

1. Segment Description (Process/Fuel Type): Natural gas used in duct burner.		
2. Source Classification Code (SCC):		3. SCC Units: Million Cubic Feet Burned
4. Maximum Hourly Rate: 0.58	5. Maximum Annual Rate: 5,105	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit: 970 (HHV)
10. Segment Comment: The duct burner is fired only with natural gas. The duct burner may operate when firing either natural gas or ULSFO in the combustion turbine.		

**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:		

**EMISSIONS UNIT INFORMATION**

Section [1] of [4]

**E. EMISSIONS UNIT POLLUTANTS**

**List of Pollutants Emitted by Emissions Unit**

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
CO			EL
NOX	205, 139 (NG) 028, 139 (FO)		EL
PM			EL
PM10			EL
SO2			WP
VOC			
SAM			WP

**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: CO		2. Total Percent Efficiency of Control:	
3. Potential Emissions: See 10 below. lb/hour                                  tons/year		4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor:  Reference: Vendor Data		7. Emissions Method Code: 5	
8.a. Baseline Actual Emissions (if required): tons/year		8.b. Baseline 24-month Period: From:                                  To:	
9.a. Projected Actual Emissions (if required): tons/year		9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: See table in Condition 13 of current air construction permit (PSD-FL-353).			
11. Potential, Fugitive, and Actual Emissions Comment:			

**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: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 8.0 ppmvd at 15% O <sub>2</sub> (combined cycle mode with natural gas or ULSFO firing), 24-hr block average; 6.0 ppmvd at 15% O <sub>2</sub> (combined cycle mode with natural gas or ULSFO firing), 12-month rolling average	4. Equivalent Allowable Emissions: lb/hour                      tons/year See 6 below.
5. Method of Compliance: CEMS	
6. Allowable Emissions Comment (Description of Operating Method):  See table in Condition 13 of current air construction permit (PSD-FL-353).	

**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                      tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	



**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		2. Total Percent Efficiency of Control:	
3. Potential Emissions: See 10 below. lb/hour		tons/year	4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor:  Reference: Vendor Data		7. Emissions Method Code: 5	
8.a. Baseline Actual Emissions (if required): tons/year		8.b. Baseline 24-month Period: From: To:	
9.a. Projected Actual Emissions (if required): tons/year		9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: See table in Condition 13 of current air construction permit (PSD-FL-353).			
11. Potential, Fugitive, and Actual Emissions Comment:			

**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 4

1. Basis for Allowable Emissions Code: RULE	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 15 ppmvd @ 15% oxygen on a 30-day rolling basis when firing natural gas	4. Equivalent Allowable Emissions: lb/hour                      tons/year
5. Method of Compliance: CEMS	
6. Allowable Emissions Comment (Description of Operating Method): The allowable emissions are from 40 CFR 60, Subpart KKKK (Standards of Performance for Stationary Combustion Turbines for Which Construction is Commenced After February 18, 2005).	

**Allowable Emissions** Allowable Emissions 2 of 4

1. Basis for Allowable Emissions Code: RULE	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 42 ppmvd @ 15% oxygen on a 30-day rolling basis when firing ULSFO	4. Equivalent Allowable Emissions: lb/hour                      tons/year
5. Method of Compliance: CEMS	
6. Allowable Emissions Comment (Description of Operating Method): The allowable emissions are from 40 CFR 60, Subpart KKKK (Standards of Performance for Stationary Combustion Turbines for Which Construction is Commenced After February 18, 2005).	

**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 3 of 4

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 2.0 ppmvd at 15% O <sub>2</sub> (combined cycle mode with natural gas firing), 24-hr block average	4. Equivalent Allowable Emissions: lb/hour                      tons/year See 6 below.
5. Method of Compliance: CEMS	
6. Allowable Emissions Comment (Description of Operating Method):  See table in Condition 13 of current air construction permit (PSD-FL-353).	

**Allowable Emissions** Allowable Emissions 4 of 4

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 8.0 ppmvd at 15% O <sub>2</sub> (combined cycle mode with ULSFO firing), 24-hr block average	4. Equivalent Allowable Emissions: lb/hour                      tons/year See 6 below.
5. Method of Compliance: CEMS	
6. Allowable Emissions Comment (Description of Operating Method):  See table in Condition 13 of current air construction permit (PSD-FL-353).	

**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: PM/PM10		2. Total Percent Efficiency of Control:	
3. Potential Emissions: See 10 below. lb/hour		tons/year	4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor:  Reference: Vendor Data		7. Emissions Method Code: 5	
8.a. Baseline Actual Emissions (if required): tons/year		8.b. Baseline 24-month Period: From: To:	
9.a. Projected Actual Emissions (if required): tons/year		9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: See table in Condition 13 of current air construction permit (PSD-FL-353).			
11. Potential, Fugitive, and Actual Emissions Comment:			

**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: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.0015% sulfur ULSFO, 2 gr S/100 SCF of gas; Visible emissions shall not exceed 10% opacity for each 6-minute block average	4. Equivalent Allowable Emissions: lb/hour                      tons/year See 6 below.
5. Method of Compliance: Fuel sampling/supplier certifications and annual opacity stack tests.	
6. Allowable Emissions Comment (Description of Operating Method): See table in Condition 13 of current air construction permit (PSD-FL-353).	

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

**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: See 10 below. lb/hour		tons/year	4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor: Reference: Vendor Data		7. Emissions Method Code: 5	
8.a. Baseline Actual Emissions (if required): tons/year		8.b. Baseline 24-month Period: From: To:	
9.a. Projected Actual Emissions (if required): tons/year		9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions:  See table in Condition 13 of current air construction permit (PSD-FL-353).			
11. Potential, Fugitive, and Actual Emissions Comment:			

**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 2

1. Basis for Allowable Emissions Code: RULE	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: Must not burn any fuel which contains total potential sulfur emissions in excess of 26 ng SO <sub>2</sub> /J (0.060 lb SO <sub>2</sub> /MMBtu) heat input.	4. Equivalent Allowable Emissions: lb/hour                      tons/year
5. Method of Compliance: Facility limited to firing pipeline quality natural gas and ULSFO. Purchase contracts/tariff sheets/fuel supplier data used to demonstrate compliance.	
6. Allowable Emissions Comment (Description of Operating Method): The allowable emissions are from 40 CFR 60, Subpart KKKK (Standards of Performance for Stationary Combustion Turbines for Which Construction is Commenced After February 18, 2005).	

**Allowable Emissions** Allowable Emissions 2 of 2

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.0015% sulfur fuel oil, 2 gr S/100 SCF of gas	4. Equivalent Allowable Emissions: lb/hour                      tons/year See 6 below.
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):  See table in Condition 13 of current air construction permit (PSD-FL-353).	

**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: SAM		2. Total Percent Efficiency of Control:	
3. Potential Emissions: See 10 below. lb/hour		tons/year	4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor:  Reference: Vendor Data		7. Emissions Method Code: 5	
8.a. Baseline Actual Emissions (if required): tons/year		8.b. Baseline 24-month Period: From: To:	
9.a. Projected Actual Emissions (if required): tons/year		9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: See table in Condition 13 of current air construction permit (PSD-FL-353).			
11. Potential, Fugitive, and Actual Emissions Comment:			



**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 2

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.0015% sulfur by weight in the fuel oil	4. Equivalent Allowable Emissions: lb/hour                      tons/year See 6 below.
5. Method of Compliance: Fuel testing.	
6. Allowable Emissions Comment (Description of Operating Method):  See table in Condition 13 of current air construction permit (PSD-FL-353).	

**Allowable Emissions** Allowable Emissions 2 of 2

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 2 grains sulfur per 100 scf in the natural gas	4. Equivalent Allowable Emissions: lb/hour                      tons/year See 6 below.
5. Method of Compliance: Fuel testing.	
6. Allowable Emissions Comment (Description of Operating Method):  See table in Condition 13 of current air construction permit (PSD-FL-353).	

**EMISSIONS UNIT INFORMATION**

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.**

**Visible Emissions Limitation:** Visible Emissions Limitation \_\_ of \_\_

1. Visible Emissions Subtype:	2. Basis for Allowable Opacity: <input type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: Normal Conditions:                      %      Exceptional Conditions:                      % Maximum Period of Excess Opacity Allowed:                      min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment:	

**Visible Emissions Limitation:** Visible Emissions Limitation \_\_ of \_\_

1. Visible Emissions Subtype:	2. Basis for Allowable Opacity: <input type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: Normal Conditions:                      %      Exceptional Conditions:                      % Maximum Period of Excess Opacity Allowed:                      min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment:	

**EMISSIONS UNIT INFORMATION**

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 1 of 3

1. Parameter Code: EM	2. Pollutant(s): NOX
3. CMS Requirement: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other	
4. Monitor Information... Manufacturer: TECO Model Number: 42ILS Serial Number: 0708620511/512	
5. Installation Date:	6. Performance Specification Test Date: May 10-11,2008
7. Continuous Monitor Comment: CEMS is required as a condition of 40 CFR 75.	

**Continuous Monitoring System:** Continuous Monitor 2 of 3

1. Parameter Code: O2	2. Pollutant(s):
3. CMS Requirement: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other	
4. Monitor Information... Manufacturer: SERVOMEX Model Number: 1440D Serial Number: 1440D1-4024	
5. Installation Date:	6. Performance Specification Test Date: May 10-11,2008
7. Continuous Monitor Comment: CEMS is required as a condition of 40 CFR 75.	

**EMISSIONS UNIT INFORMATION**

Section [1] of [4]

**H. CONTINUOUS MONITOR INFORMATION (CONTINUED)**

**Continuous Monitoring System:** Continuous Monitor 3 of 3

1. Parameter Code: EM	2. Pollutant(s): CO
3. CMS Requirement: <input type="checkbox"/> Rule <input checked="" type="checkbox"/> Other	
4. Monitor Information... Manufacturer: TECO Model Number: 48i Serial Number:	
5. Installation Date:	6. Performance Specification Test Date: May 10-11,2008
7. Continuous Monitor Comment:	

**Continuous Monitoring System:** Continuous Monitor \_\_\_ of \_\_\_

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement: <input type="checkbox"/> Rule <input type="checkbox"/> 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 [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) <input checked="" type="checkbox"/> Attached, Document ID: <u>Attachment B</u> <input type="checkbox"/> 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) <input checked="" type="checkbox"/> Attached, Document ID: <u>Attachment I</u> <input type="checkbox"/> 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) <input checked="" type="checkbox"/> Attached, Document ID: <u>Attachment N</u> <input type="checkbox"/> 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) <input checked="" type="checkbox"/> Attached, Document ID: <u>Attachment J</u> <input type="checkbox"/> Previously Submitted, Date _____ <input type="checkbox"/> 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) <input checked="" type="checkbox"/> Attached, Document ID: <u>Attachment K</u> <input type="checkbox"/> Previously Submitted, Date _____ <input type="checkbox"/> Not Applicable
6. Compliance Demonstration Reports/Records: <input type="checkbox"/> Attached, Document ID: _____ Test Date(s)/Pollutant(s) Tested: _____ <input checked="" type="checkbox"/> Previously Submitted, Date: <u>June 5, 2008</u> Test Date(s)/Pollutant(s) Tested: <u>May 5-11, 2008/CO, NOX, Visible Emissions, Ammonia Slip</u> <input type="checkbox"/> To be Submitted, Date (if known): _____ Test Date(s)/Pollutant(s) Tested: _____ <input type="checkbox"/> 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: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable



## EMISSIONS UNIT INFORMATION

Section [2] of [4]

### III. EMISSIONS UNIT INFORMATION

**Title V Air Operation Permit Application** - For Title V air operation permitting only, emissions units are classified as regulated, unregulated, or insignificant. If this is an application for an initial, revised or renewal Title V air operation permit, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each regulated and unregulated emissions unit addressed in this application. Some of the subsections comprising the Emissions Unit Information Section of the form are optional for unregulated emissions units. Each such subsection is appropriately marked. Insignificant emissions units are required to be listed at Section II, Subsection C.

**Air Construction Permit or FESOP Application** - For air construction permitting or federally enforceable state air operation permitting, emissions units are classified as either subject to air permitting or exempt from air permitting. The concept of an "unregulated emissions unit" does not apply. If this is an application for an air construction permit or FESOP, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit subject to air permitting addressed in this application for air permit. Emissions units exempt from air permitting are required to be listed at Section II, Subsection C.

**Air Construction Permit and Revised/Renewal Title V Air Operation Permit Application** - Where this application is used to apply for both an air construction permit and a revised or renewal Title V air operation permit, each emissions unit is classified as either subject to air permitting or exempt from air permitting for air construction permitting purposes, and as regulated, unregulated, or insignificant for Title V air operation permitting purposes. A separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit addressed in this application that is subject to air construction permitting and for each such emissions unit that is a regulated or unregulated unit for purposes of Title V permitting. (An emissions unit may be exempt from air construction permitting but still be classified as an unregulated unit for Title V purposes.) Emissions units classified as insignificant for Title V purposes are required to be listed at Section II, Subsection C.

If submitting the application form in hard copy, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application must be indicated in the space provided at the top of each page.

**EMISSIONS UNIT INFORMATION**

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.)

The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

**Emissions Unit Description and Status**

1. Type of Emissions Unit Addressed in this Section: (Check one)

This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

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.

2. Description of Emissions Unit Addressed in this Section: 8-cell mechanical draft cooling tower

3. Emissions Unit Identification Number: 003

4. Emissions Unit Status Code:

A

5. Commence Construction Date:

08/03/06

6. Initial Startup Date:

02/11/08

7. Emissions Unit Major Group SIC Code:

49

8. Federal Program Applicability: (Check all that apply)

Acid Rain Unit

CAIR Unit

Hg Budget Unit

9. Package Unit:

Manufacturer:

Model Number:

10. Generator Nameplate Rating:

11. Emissions Unit Comment:



**EMISSIONS UNIT INFORMATION**

Section [2] of [4]

**Emissions Unit Control Equipment/Method:** Control 1 of 1

1. Control Equipment/Method Description:  
Drift eliminators

2. Control Device or Method Code: 152

**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:

**EMISSIONS UNIT INFORMATION**

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: 111,130 gpm design water flow
2. Maximum Production Rate:
3. Maximum Heat Input Rate:
4. Maximum Incineration Rate: pounds/hr tons/day
5. Requested Maximum Operating Schedule: 24 hours/day    7 days/week 52 weeks/year    8,760 hours/year
6. Operating Capacity/Schedule Comment:

**EMISSIONS UNIT INFORMATION**

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 Plot Plan or Flow Diagram: Cooling Tower (EU003)		2. Emission Point Type Code: 3	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking:			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:			
5. Discharge Type Code: V	6. Stack Height: 56 feet	7. Exit Diameter: 30 feet	
8. Exit Temperature: 95°F	9. Actual Volumetric Flow Rate: 1,000,000 acfm	10. Water Vapor: %	
11. Maximum Dry Standard Flow Rate: dscfm		12. Nonstack Emission Point Height:	
13. Emission Point UTM Coordinates... Zone: 17 East (km): 561.5163 North (km): 3029.0521		14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS) Longitude (DD/MM/SS)	
15. Emission Point Comment: The cooling tower design is an 8 cell mechanical draft cooling tower. The information given in fields 5 through 9 is for each cell.			

**EMISSIONS UNIT INFORMATION**

Section [2] of [4]

**D. SEGMENT (PROCESS/FUEL) INFORMATION**

**Segment Description and Rate:** Segment 1 of 1

1. Segment Description (Process/Fuel Type): Drift loss		
2. Source Classification Code (SCC): 38500101		3. SCC Units: Thousand Gallons Transferred or Handled
4. Maximum Hourly Rate: 6,670	5. Maximum Annual Rate: 58,409,928	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment: The maximum hourly and annual rates shown in Fields 4 and 5 are the design water circulation rate.		

**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:		

**EMISSIONS UNIT INFORMATION**

Section [2] of [4]

**E. EMISSIONS UNIT POLLUTANTS**

**List of Pollutants Emitted by Emissions Unit**

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
<b>PM</b>			<b>WP</b>
<b>PM10</b>			<b>WP</b>

**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: PM		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 1.48 lb/hour                      6.48 tons/year		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor:  Reference: Vendor Data, mass balance		7. Emissions Method Code: 5	
8.a. Baseline Actual Emissions (if required): tons/year		8.b. Baseline 24-month Period: From:                      To:	
9.a. Projected Actual Emissions (if required): tons/year		9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: Potential emissions are based on the design cooling tower water flow, the design drift rate and the cycled water total dissolved solids. Design water flow = 111,130 gpm = 55,609,452 lb/hr Design drift rate = 0.0005% of design water flow Total dissolved solids = 5,331 ppm Hourly PM emissions = 55,542,774 lb/hr x 0.0005/100 x 5,331 ppm/1,000,000 = 1.48 lb/hr The maximum annual PM emissions = 1.48 lb/hr x 8,760 hr/yr x ton/2,000 lb = 6.48 tpy			
11. Potential, Fugitive, and Actual Emissions Comment:			

**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 \_\_ 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:	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:	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):	

**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: PM10		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 0.43 lb/hour                      1.87 tons/year		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor:  Reference: Vendor Data		7. Emissions Method Code: 5	
8.a. Baseline Actual Emissions (if required): tons/year		8.b. Baseline 24-month Period: From:                      To:	
9.a. Projected Actual Emissions (if required): tons/year		9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: Potential emissions are based on the design cooling tower water flow, the design drift rate, the cycled water total dissolved solids, and the percent of PM that is PM <sub>10</sub> . The maximum PM <sub>10</sub> emissions occur when the cycled water total dissolved solids is 3,918 ppm. At this total dissolved solids value the percent of PM that is PM <sub>10</sub> is equal to 39.14 percent. Design water flow = 111,130 gpm = 55,542,774 lb/hr Design drift rate = 0.0005 percent of design water flow Total dissolved solids = 3,918 ppm Percent of PM that is PM <sub>10</sub> = 39.14 percent Hourly PM <sub>10</sub> emissions = 55,542,774 lb/hr x 0.0005% x 3,918 ppm/1,000,000 x 39.14% = 0.426 lb/hr The maximum annual PM <sub>10</sub> emissions = 0.426 lb/hr x 8,760 hr/yr x ton/2,000 lb = 1.87 tpy			
11. Potential, Fugitive, and Actual Emissions Comment:			



**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 \_ 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:	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]

**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 \_\_ of \_\_

1. Visible Emissions Subtype:	2. Basis for Allowable Opacity: <input type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: Normal Conditions:                      %                      Exceptional Conditions:                      % Maximum Period of Excess Opacity Allowed:                      min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment:	

**Visible Emissions Limitation:** Visible Emissions Limitation \_\_ of \_\_

1. Visible Emissions Subtype:	2. Basis for Allowable Opacity: <input type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: Normal Conditions:                      %                      Exceptional Conditions:                      % Maximum Period of Excess Opacity Allowed:                      min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment:	

**EMISSIONS UNIT INFORMATION**

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 \_\_ of \_\_

1. Parameter Code: EM	2. Pollutant(s):
3. CMS Requirement:	<input type="checkbox"/> Rule <input type="checkbox"/> 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:	<input type="checkbox"/> Rule <input type="checkbox"/> 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) <input checked="" type="checkbox"/> Attached, Document ID: <u>Attachment B</u> <input type="checkbox"/> 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) <input type="checkbox"/> Attached, Document ID: <u>NA</u> <input type="checkbox"/> 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) <input checked="" type="checkbox"/> Attached, Document ID: <u>Attachment N</u> <input type="checkbox"/> 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) <input checked="" type="checkbox"/> Attached, Document ID: <u>Attachment J</u> <input type="checkbox"/> Previously Submitted, Date _____
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) <input checked="" type="checkbox"/> Attached, Document ID: <u>Attachment K</u> <input type="checkbox"/> Previously Submitted, Date _____ <input type="checkbox"/> Not Applicable
6. Compliance Demonstration Reports/Records: <input type="checkbox"/> Attached, Document ID: _____ Test Date(s)/Pollutant(s) Tested: _____ <input checked="" type="checkbox"/> Previously Submitted, Date: _____ Test Date(s)/Pollutant(s) Tested: <u>07/29/2008, GEA Power Cooling Inc. correspondence certifying that drift eliminators are installed to meet 0.0005 percent guarantee and permit requirement.</u> <input type="checkbox"/> To be Submitted, Date (if known): _____ Test Date(s)/Pollutant(s) Tested: _____ <input type="checkbox"/> 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: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

**EMISSIONS UNIT INFORMATION**

Section [2] 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)): <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
2. Good Engineering Practice Stack Height Analysis (Rules 62-212.400(4)(d) and 62-212.500(4)(f), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
3. Description of Stack Sampling Facilities: (Required for proposed new stack sampling facilities only) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable

**Additional Requirements for Title V Air Operation Permit Applications**

1. Identification of Applicable Requirements: <input checked="" type="checkbox"/> Attached, Document ID: Attachment E
2. Compliance Assurance Monitoring: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
3. Alternative Methods of Operation: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
4. Alternative Modes of Operation (Emissions Trading): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

**Additional Requirements Comment**

## EMISSIONS UNIT INFORMATION

Section [3] of [4]

### III. EMISSIONS UNIT INFORMATION

**Title V Air Operation Permit Application** - For Title V air operation permitting only, emissions units are classified as regulated, unregulated, or insignificant. If this is an application for an initial, revised or renewal Title V air operation permit, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each regulated and unregulated emissions unit addressed in this application. Some of the subsections comprising the Emissions Unit Information Section of the form are optional for unregulated emissions units. Each such subsection is appropriately marked. Insignificant emissions units are required to be listed at Section II, Subsection C.

**Air Construction Permit or FESOP Application** - For air construction permitting or federally enforceable state air operation permitting, emissions units are classified as either subject to air permitting or exempt from air permitting. The concept of an "unregulated emissions unit" does not apply. If this is an application for an air construction permit or FESOP, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit subject to air permitting addressed in this application for air permit. Emissions units exempt from air permitting are required to be listed at Section II, Subsection C.

**Air Construction Permit and Revised/Renewal Title V Air Operation Permit Application** - Where this application is used to apply for both an air construction permit and a revised or renewal Title V air operation permit, each emissions unit is classified as either subject to air permitting or exempt from air permitting for air construction permitting purposes, and as regulated, unregulated, or insignificant for Title V air operation permitting purposes. A separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit addressed in this application that is subject to air construction permitting and for each such emissions unit that is a regulated or unregulated unit for purposes of Title V permitting. (An emissions unit may be exempt from air construction permitting but still be classified as an unregulated unit for Title V purposes.) Emissions units classified as insignificant for Title V purposes are required to be listed at Section II, Subsection C.

If submitting the application form in hard copy, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application must be indicated in the space provided at the top of each page.

**EMISSIONS UNIT INFORMATION**

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.)

The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

**Emissions Unit Description and Status**

1. Type of Emissions Unit Addressed in this Section: (Check one)

This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

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.

2. Description of Emissions Unit Addressed in this Section: Safe Shutdown Generator

3. Emissions Unit Identification Number: 004

4. Emissions Unit Status Code:  
A

5. Commence Construction Date:  
08/03/06

6. Initial Startup Date:  
02/11/08

7. Emissions Unit Major Group SIC Code:  
49

8. Federal Program Applicability: (Check all that apply)

- Acid Rain Unit
- CAIR Unit
- Hg Budget Unit

9. Package Unit:

Manufacturer: Cummins

Model Number: DQFAA QST30-G5 NR2

10. Generator Nameplate Rating: 1,102 bhp

11. Emissions Unit Comment:

**EMISSIONS UNIT INFORMATION**

Section [3] of [4]

**Emissions Unit Control Equipment/Method:** Control \_\_\_ of \_\_\_

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

1. Control Equipment/Method Description:
--

2. Control Device or Method Code:
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**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:
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**EMISSIONS UNIT INFORMATION**

Section [3] of [4]

**B. EMISSIONS UNIT CAPACITY INFORMATION**

(Optional for unregulated emissions units.)

**Emissions Unit Operating Capacity and Schedule**

1. Maximum Process or Throughput Rate:
2. Maximum Production Rate: 1,102 bhp
3. Maximum Heat Input Rate:
4. Maximum Incineration Rate: pounds/hr tons/day
5. Requested Maximum Operating Schedule: 24 hours/day 7 days/week 52 weeks/year 8,760 hours/year
6. Operating Capacity/Schedule Comment: It is conservatively estimated that the safe shutdown generator will operate approximately 200 hours per year. Because this is emergency equipment, a maximum operating schedule is not requested.

**EMISSIONS UNIT INFORMATION**

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 Plot Plan or Flow Diagram: Safe Shutdown Generator		2. Emission Point Type Code: 1	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking:			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:			
5. Discharge Type Code: V	6. Stack Height: 13.3 feet	7. Exit Diameter: 0.5 feet	
8. Exit Temperature: 816°F	9. Actual Volumetric Flow Rate: 6,310 acfm	10. Water Vapor: %	
11. Maximum Dry Standard Flow Rate: dscfm		12. Nonstack Emission Point Height: feet	
13. Emission Point UTM Coordinates... Zone: 17 East (km): 561.5347 North (km): 3028.9730		14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS) Longitude (DD/MM/SS)	
15. Emission Point Comment:			

**EMISSIONS UNIT INFORMATION**

Section [3] of [4]

**D. SEGMENT (PROCESS/FUEL) INFORMATION****Segment Description and Rate:** Segment 1 of 1

1. Segment Description (Process/Fuel Type): ULSFO used in the safe shutdown generator		
2. Source Classification Code (SCC): 20100301		3. SCC Units: Thousand Gallons Burned
4. Maximum Hourly Rate: 0.0527	5. Maximum Annual Rate: 10.54	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit: 137 (HHV)
10. Segment Comment: The annual rate is based on an estimated 200 hours per year of 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:		

**EMISSIONS UNIT INFORMATION**

Section [3] of [4]

**E. EMISSIONS UNIT POLLUTANTS**

**List of Pollutants Emitted by Emissions Unit**

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
CO			EL
NOX			EL
PM			EL
PM10			NS
SO2			NS
VOC			EL
CO			NS

**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: CO		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 1.12 lb/hour                      0.11 tons/year		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor:  Reference: Vendor Data		7. Emissions Method Code: 5	
8.a. Baseline Actual Emissions (if required): tons/year		8.b. Baseline 24-month Period: From:                      To:	
9.a. Projected Actual Emissions (if required): tons/year		9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: Potential emissions are based on vendor data. The maximum hourly CO emission rate is 1.12 lb/hour. The maximum annual potential CO emissions are based on operating 200 hours per year. Annual emissions = 1.12 lb/hr x 200 hours/year x 1 ton/2,000 lb = 0.11 tons/year			
11. Potential, Fugitive, and Actual Emissions Comment: The potential emissions are given for informational purposes and do not represent limits.			

**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:
3. Allowable Emissions and Units: 2.6 g/hp-hr	4. Equivalent Allowable Emissions: lb/hour                      tons/year
5. Method of Compliance: Manufacturer certified engine	
6. Allowable Emissions Comment (Description of Operating Method): The safe shutdown generator is an Emergency Stationary Compression Ignition Internal Combustion Engine (ICE) and is subject to 40 CFR 60, Subpart IIII.	

**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                      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:	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):	

**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		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 9.65 lb/hour                      0.96 tons/year		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor:  Reference: Vendor Data		7. Emissions Method Code: 5	
8.a. Baseline Actual Emissions (if required): tons/year		8.b. Baseline 24-month Period: From:                      To:	
9.a. Projected Actual Emissions (if required): tons/year		9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: Potential emissions are based on vendor data. The maximum hourly NO <sub>x</sub> emission rate is 9.65 lb/hour. The maximum annual potential NO <sub>x</sub> emissions are based on operating 200 hours per year. Annual emissions = 9.65 lb/hr x 200 hours/year x 1 ton/2,000 lb = 0.96 tons/year			
11. Potential, Fugitive, and Actual Emissions Comment: The potential emissions are given for informational purposes and do not represent limits.			

**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:
3. Allowable Emissions and Units: 4.8 g/hp-hr (NOX+NMHC)	4. Equivalent Allowable Emissions: lb/hour                      tons/year
5. Method of Compliance: Manufacturer certified engine	
6. Allowable Emissions Comment (Description of Operating Method): The safe shutdown generator is an Emergency Stationary Compression Ignition Internal Combustion Engine (ICE) and is subject to 40 CFR 60, Subpart III.	

**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                      tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	



**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: PM		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 0.29 lb/hour                      0.03 tons/year		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor:  Reference: Vendor Data		7. Emissions Method Code: 5	
8.a. Baseline Actual Emissions (if required): tons/year		8.b. Baseline 24-month Period: From:                      To:	
9.a. Projected Actual Emissions (if required): tons/year		9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: Potential emissions are based on vendor data. The maximum hourly PM emission rate is 0.29 lb/hour. The maximum annual potential PM emissions are based on operating 200 hours per year. Annual emissions = 0.29 lb/hr x 200 hours/year x 1 ton/2,000 lb = 0.03 tons/year			
11. Potential, Fugitive, and Actual Emissions Comment: The potential emissions are given for informational purposes and do not represent limits.			

**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:
3. Allowable Emissions and Units: 0.15 g/hp-hr	4. Equivalent Allowable Emissions: lb/hour                      tons/year
5. Method of Compliance: Manufacturer certified engine	
6. Allowable Emissions Comment (Description of Operating Method): The safe shutdown generator is an Emergency Stationary Compression Ignition Internal Combustion Engine (ICE) and is subject to 40 CFR 60, Subpart IIII.	

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

**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: PM10		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 0.29 lb/hour                      0.03 tons/year		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor:  Reference: Vendor Data		7. Emissions Method Code: 5	
8.a. Baseline Actual Emissions (if required): tons/year		8.b. Baseline 24-month Period: From:                      To:	
9.a. Projected Actual Emissions (if required): tons/year		9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: Potential emissions are based on vendor data. The maximum hourly PM <sub>10</sub> emission rate is 0.29 lb/hour. The maximum annual potential PM <sub>10</sub> emissions are based on operating 200 hours per year. Annual emissions = 0.29 lb/hr x 200 hours/year x 1 ton/2,000 lb = 0.03 tons/year			
11. Potential, Fugitive, and Actual Emissions Comment: The potential emissions are given for informational purposes and do not represent limits.			

**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 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:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions:
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

**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: SO <sub>2</sub>		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 0.01 lb/hour                      0.001 tons/year		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor:  Reference: Vendor Data		7. Emissions Method Code: 5	
8.a. Baseline Actual Emissions (if required): tons/year		8.b. Baseline 24-month Period: From:                      To:	
9.a. Projected Actual Emissions (if required): tons/year		9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: Potential emissions are based on vendor data using fuel oil with 0.0015 percent sulfur content. The maximum hourly SO <sub>2</sub> emission rate is 0.01 lb/hour. The maximum annual potential SO <sub>2</sub> emissions are based on operating 200 hours per year. Annual emissions = 0.01 lb/hr x 200 hours/year x 1 ton/2,000 lb = 0.001 tons/year			
11. Potential, Fugitive, and Actual Emissions Comment: Potential emissions shown in Fields 3 and 8 are based on using fuel oil with 0.0015 percent sulfur content. The potential emissions are given for informational purposes and do not represent limits.			

**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 \_\_ 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:	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):	

**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: VOC		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 0.22 lb/hour                      0.02 tons/year		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor:  Reference: Vendor Data		7. Emissions Method Code: 5	
8.a. Baseline Actual Emissions (if required): tons/year		8.b. Baseline 24-month Period: From:                      To:	
9.a. Projected Actual Emissions (if required): tons/year		9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: Potential emissions are based on vendor data. The maximum hourly VOC emission rate is 0.22 lb/hour. The maximum annual potential VOC emissions are based on operating 200 hours per year. Annual emissions = 0.22 lb/hr x 200 hours/year x 1 ton/2,000 lbs = 0.02 tons/year			
11. Potential, Fugitive, and Actual Emissions Comment: The potential emissions are given for informational purposes and do not represent limits.			

**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:
3. Allowable Emissions and Units: 4.8 g/hp-hr (NOX+NMHC)	4. Equivalent Allowable Emissions: lb/hour                      tons/year
5. Method of Compliance: Manufacturer certified engine	
6. Allowable Emissions Comment (Description of Operating Method): The safe shutdown generator is an Emergency Stationary Compression Ignition Internal Combustion Engine (ICE) and is subject to 40 CFR 60, Subpart IIII.	

**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                      tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	



**EMISSIONS UNIT INFORMATION**

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**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 \_\_ of \_\_

1. Visible Emissions Subtype:	2. Basis for Allowable Opacity: <input type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: Normal Conditions:                   %      Exceptional Conditions:                   % Maximum Period of Excess Opacity Allowed:                   min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment:	

**Visible Emissions Limitation:** Visible Emissions Limitation \_\_ of \_\_

1. Visible Emissions Subtype:	2. Basis for Allowable Opacity: <input type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: Normal Conditions:                   %      Exceptional Conditions:                   % Maximum Period of Excess Opacity Allowed:                   min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment:	

**EMISSIONS UNIT INFORMATION**

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 \_\_ of \_\_

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement:	<input type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... Manufacturer: Model Number: <span style="float: right;">Serial Number:</span>	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment:	

**Continuous Monitoring System:** Continuous Monitor 2 of 2

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement:	<input type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... Manufacturer: Model Number: <span style="float: right;">Serial Number:</span>	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment:	

**EMISSIONS UNIT INFORMATION**

Section [3] of [4]

**I. EMISSIONS UNIT ADDITIONAL INFORMATION**

**Additional Requirements for All Applications, Except as Otherwise Stated**

<p>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) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____</p>
<p>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) <input checked="" type="checkbox"/> Attached, Document ID: <u>Attachment I</u> <input type="checkbox"/> Previously Submitted, Date _____</p>
<p>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) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date _____</p>
<p>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) <input checked="" type="checkbox"/> Attached, Document ID: <u>Attachment J</u> <input type="checkbox"/> Previously Submitted, Date _____ <input type="checkbox"/> Not Applicable (construction application)</p>
<p>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) <input checked="" type="checkbox"/> Attached, Document ID: <u>Attachment K</u> <input type="checkbox"/> Previously Submitted, Date _____ <input type="checkbox"/> Not Applicable</p>
<p>6. Compliance Demonstration Reports/Records: <input type="checkbox"/> Attached, Document ID: _____ Test Date(s)/Pollutant(s) Tested: _____ <input type="checkbox"/> Previously Submitted, Date: _____ Test Date(s)/Pollutant(s) Tested: _____ <input type="checkbox"/> To be Submitted, Date (if known): _____ Test Date(s)/Pollutant(s) Tested: _____ <input checked="" type="checkbox"/> 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.</p>
<p>7. Other Information Required by Rule or Statute: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable</p>

## EMISSIONS UNIT INFORMATION

Section [4] of [4]

### III. EMISSIONS UNIT INFORMATION

**Title V Air Operation Permit Application** - For Title V air operation permitting only, emissions units are classified as regulated, unregulated, or insignificant. If this is an application for an initial, revised or renewal Title V air operation permit, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each regulated and unregulated emissions unit addressed in this application. Some of the subsections comprising the Emissions Unit Information Section of the form are optional for unregulated emissions units. Each such subsection is appropriately marked. Insignificant emissions units are required to be listed at Section II, Subsection C.

**Air Construction Permit or FESOP Application** - For air construction permitting or federally enforceable state air operation permitting, emissions units are classified as either subject to air permitting or exempt from air permitting. The concept of an "unregulated emissions unit" does not apply. If this is an application for an air construction permit or FESOP, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit subject to air permitting addressed in this application for air permit. Emissions units exempt from air permitting are required to be listed at Section II, Subsection C.

**Air Construction Permit and Revised/Renewal Title V Air Operation Permit Application** - Where this application is used to apply for both an air construction permit and a revised or renewal Title V air operation permit, each emissions unit is classified as either subject to air permitting or exempt from air permitting for air construction permitting purposes, and as regulated, unregulated, or insignificant for Title V air operation permitting purposes. A separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit addressed in this application that is subject to air construction permitting and for each such emissions unit that is a regulated or unregulated unit for purposes of Title V permitting. (An emissions unit may be exempt from air construction permitting but still be classified as an unregulated unit for Title V purposes.) Emissions units classified as insignificant for Title V purposes are required to be listed at Section II, Subsection C.

If submitting the application form in hard copy, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application must be indicated in the space provided at the top of each page.

**EMISSIONS UNIT INFORMATION**

Section [4] 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.)

The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

**Emissions Unit Description and Status**

1. Type of Emissions Unit Addressed in this Section: (Check one)

This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

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.

2. Description of Emissions Unit Addressed in this Section: Diesel Engine Fire Pump.

3. Emissions Unit Identification Number: 005

4. Emissions Unit Status Code: A	5. Commence Construction Date: 08/03/06	6. Initial Startup Date: 02/11/08	7. Emissions Unit Major Group SIC Code: 49
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8. Federal Program Applicability: (Check all that apply)

Acid Rain Unit

CAIR Unit

Hg Budget Unit

9. Package Unit:  
Manufacturer: John Deere Co. Model Number: JW6H-UF48

10. Generator Nameplate Rating: 290 bhp

11. Emissions Unit Comment: The diesel engine fire pump is considered emergency equipment.

**EMISSIONS UNIT INFORMATION**

Section [4] of [4]

**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:

**Emissions Unit Control Equipment/Method:** Control \_\_\_ of \_\_\_

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

**EMISSIONS UNIT INFORMATION**

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**B. EMISSIONS UNIT CAPACITY INFORMATION**

**(Optional for unregulated emissions units.)**

**Emissions Unit Operating Capacity and Schedule**

1. Maximum Process or Throughput Rate:
2. Maximum Production Rate: 290 bhp
3. Maximum Heat Input Rate:
4. Maximum Incineration Rate: pounds/hr tons/day
5. Requested Maximum Operating Schedule: 24 hours/day 52 weeks/year 7 days/week 8,760 hours/year
6. Operating Capacity/Schedule Comment: Based on National Fire Protection Association (NFPA) guidelines it is conservatively estimated that the diesel engine fire pump will operate approximately 200 hours per year. Because this is emergency fire equipment, a maximum operating schedule is not requested.

**EMISSIONS UNIT INFORMATION**

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 Plot Plan or Flow Diagram: Fire Pump Building (EU005)		2. Emission Point Type Code: 1	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking:			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:			
5. Discharge Type Code: V	6. Stack Height: 12.3 feet	7. Exit Diameter: 0.41 feet	
8. Exit Temperature: 855°F	9. Actual Volumetric Flow Rate: 1,506 acfm	10. Water Vapor: %	
11. Maximum Dry Standard Flow Rate: dscfm		12. Nonstack Emission Point Height: feet	
13. Emission Point UTM Coordinates... Zone: 17 East (km): 561.4285 North (km): 3028.9605		14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS) Longitude (DD/MM/SS)	
15. Emission Point Comment:			



**EMISSIONS UNIT INFORMATION**

Section [4] of [4]

**D. SEGMENT (PROCESS/FUEL) INFORMATION****Segment Description and Rate:** Segment 1 of 1

1. Segment Description (Process/Fuel Type): ULSFO is used in the diesel engine fire pump		
2. Source Classification Code (SCC): 20100301		3. SCC Units: Thousand Gallons Burned
4. Maximum Hourly Rate: 0.0135	5. Maximum Annual Rate: 2.70	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: 0.0015	8. Maximum % Ash:	9. Million Btu per SCC Unit: 137 (HHV)
10. Segment Comment: The annual rate is based on an estimated 200 hours per year of 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:		

**EMISSIONS UNIT INFORMATION**

Section [4] of [4]

**E. EMISSIONS UNIT POLLUTANTS**

**List of Pollutants Emitted by Emissions Unit**

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
CO			EL
NOX			EL
PM			EL
PM10			NS
SO2			NS
VOC			EL
CO			NS

**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: CO		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 0.326 lb/hour                      0.03 tons/year		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor:  Reference: Vendor Data		7. Emissions Method Code: 5	
8.a. Baseline Actual Emissions (if required): tons/year		8.b. Baseline 24-month Period: From:                      To:	
9.a. Projected Actual Emissions (if required): tons/year		9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: Potential emissions are based on vendor data. The maximum hourly CO emission rate is 0.326 lb/hour. The maximum annual potential CO emissions are based on operating 200 hours per year. Annual emissions = 0.326 lb/hr x 200 hours/year x 1 ton/2,000 lb = 0.03 tons/year			
11. Potential, Fugitive, and Actual Emissions Comment: The potential emissions are estimates based on preliminary vendor data. The potential emissions are given for informational purposes and do not represent limits.			

**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:
3. Allowable Emissions and Units: 2.6 g/hp-hr	4. Equivalent Allowable Emissions: lb/hour                      tons/year
5. Method of Compliance: Manufacturer certified engine	
6. Allowable Emissions Comment (Description of Operating Method): The emergency fire pump diesel engine is an Emergency Stationary Compression Ignition Internal Combustion Engine (ICE) and is subject to 40 CFR 60, Subpart III.	

**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                      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:	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):	

**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		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 3.47 lb/hour                      0.35 tons/year		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor: Reference: Vendor Data		7. Emissions Method Code: 5	
8.a. Baseline Actual Emissions (if required): tons/year		8.b. Baseline 24-month Period: From:                                      To:	
9.a. Projected Actual Emissions (if required): tons/year		9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: Potential emissions are based on vendor data. The maximum hourly NO <sub>x</sub> emission rate is 3.47 lb/hour. The maximum annual potential NO <sub>x</sub> emissions are based on operating 200 hours per year. Annual emissions = 3.47 lb/hr x 200 hours/year x 1 ton/2,000 lb = 0.35 tons/year			
11. Potential, Fugitive, and Actual Emissions Comment: The potential emissions are given for informational purposes and do not represent limits.			

**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:
3. Allowable Emissions and Units: 7.8 g/hp-hr (NOX+NMHC)	4. Equivalent Allowable Emissions: lb/hour                      tons/year
5. Method of Compliance: Manufacturer certified engine	
6. Allowable Emissions Comment (Description of Operating Method): The emergency fire pump diesel engine is an Emergency Stationary Compression Ignition Internal Combustion Engine (ICE) and is subject to 40 CFR 60, Subpart III.	

**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                      tons/year
5. Method of Compliance: CEMS	
6. Allowable Emissions Comment (Description of Operating Method):	

**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: PM		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 0.083 lb/hour                      0.01 tons/year		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor:  Reference: Vendor Data		7. Emissions Method Code: 5	
8.a. Baseline Actual Emissions (if required): tons/year		8.b. Baseline 24-month Period: From:                      To:	
9.a. Projected Actual Emissions (if required): tons/year		9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: Potential emissions are based on vendor data. The maximum hourly PM emission rate is 0.083lb/hour. The maximum annual potential PM emissions are based on operating 200 hours per year. Annual emissions = 0.083lb/hr x 200 hours/year x 1 ton/2,000 lb = 0.01tons/year			
11. Potential, Fugitive, and Actual Emissions Comment: The potential emissions are given for informational purposes and do not represent limits.			

**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:
3. Allowable Emissions and Units: 0.4 g/hp-hr	4. Equivalent Allowable Emissions: lb/hour                      tons/year
5. Method of Compliance: Manufacturer certified engine	
6. Allowable Emissions Comment (Description of Operating Method): The emergency fire pump diesel engine is an Emergency Stationary Compression Ignition Internal Combustion Engine (ICE) and is subject to 40 CFR 60, Subpart IIII.	

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



**EMISSIONS UNIT INFORMATION**

Section [4] of [4] Page

**POLLUTANT DETAIL INFORMATION**

[7] of [8]

**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: VOC		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 0.19 lb/hour                      0.02 tons/year		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor:  Reference: Vendor Data		7. Emissions Method Code: 5	
8.a. Baseline Actual Emissions (if required): tons/year		8.b. Baseline 24-month Period: From:                      To:	
9.a. Projected Actual Emissions (if required): tons/year		9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: Potential emissions are based on vendor data. The maximum hourly VOC emission rate is 0.19 lb/hour. The maximum annual potential VOC emissions are based on operating 200 hours per year. Annual emissions = 0.19 lb/hr x 200 hours/year x 1 ton/2,000 lb = 0.02 tons/year			
11. Potential, Fugitive, and Actual Emissions Comment: The potential emissions are given for informational purposes and do not represent limits.			

**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:
3. Allowable Emissions and Units: 7.8 g/hp-hr (NOX+NMHC)	4. Equivalent Allowable Emissions: lb/hour                      tons/year
5. Method of Compliance: Manufacturer certified engine	
6. Allowable Emissions Comment (Description of Operating Method): The emergency fire pump diesel engine is an Emergency Stationary Compression Ignition Internal Combustion Engine (ICE) and is subject to 40 CFR 60, Subpart IIII.	

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



**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 \_ of \_

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement:	<input type="checkbox"/> Rule <input type="checkbox"/> 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:	<input type="checkbox"/> Rule <input type="checkbox"/> 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) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> 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) <input checked="" type="checkbox"/> Attached, Document ID: <u>Attachment I</u> <input type="checkbox"/> 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) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> 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) <input checked="" type="checkbox"/> Attached, Document ID: <u>Attachment J</u> <input type="checkbox"/> Previously Submitted, Date _____ <input type="checkbox"/> 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) <input checked="" type="checkbox"/> Attached, Document ID: <u>Attachment K</u> <input type="checkbox"/> Previously Submitted, Date _____ <input type="checkbox"/> Not Applicable
6. Compliance Demonstration Reports/Records: <input type="checkbox"/> Attached, Document ID: _____ Test Date(s)/Pollutant(s) Tested: _____ <input type="checkbox"/> Previously Submitted, Date: _____ Test Date(s)/Pollutant(s) Tested: _____ <input type="checkbox"/> To be Submitted, Date (if known): _____ Test Date(s)/Pollutant(s) Tested: _____ <input checked="" type="checkbox"/> 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: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

**EMISSIONS UNIT INFORMATION**

Section [4] 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)): <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
2. Good Engineering Practice Stack Height Analysis (Rules 62-212.400(4)(d) and 62-212.500(4)(f), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
3. Description of Stack Sampling Facilities: (Required for proposed new stack sampling facilities only) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable

**Additional Requirements for Title V Air Operation Permit Applications**

1. Identification of Applicable Requirements: <input checked="" type="checkbox"/> Attached, Document ID: <u>Attachment E</u>
2. Compliance Assurance Monitoring: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
3. Alternative Methods of Operation: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
4. Alternative Modes of Operation (Emissions Trading): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

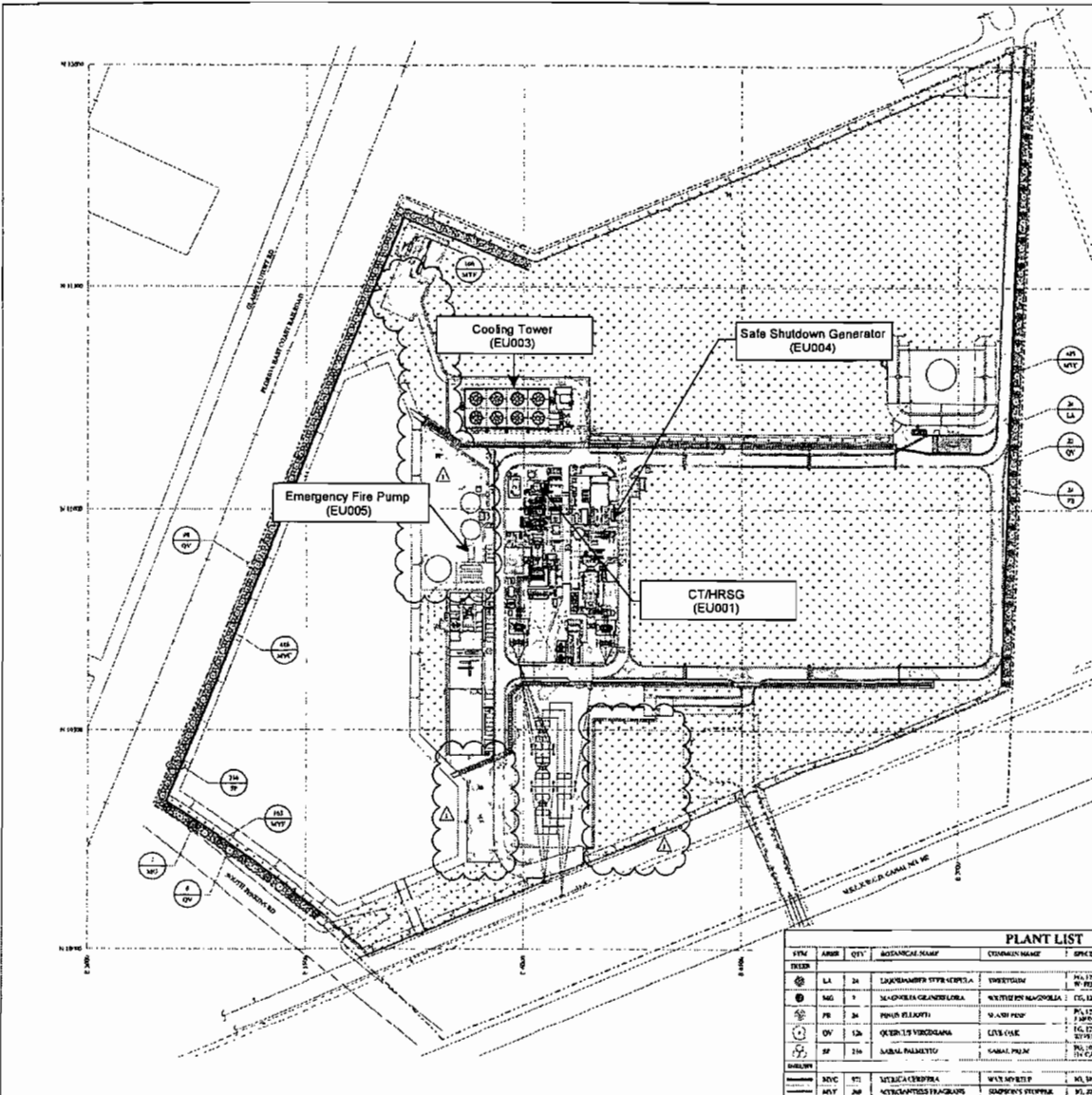
**Additional Requirements Comment**

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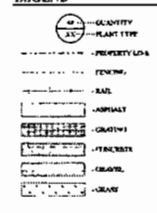
**Attachment A  
Facility Plot Plan and Layout Drawings**

A B C D E F G H

1  
2  
3  
4  
5  
6  
7  
8



LEGEND



LANDSCAPE REQUIREMENTS

VEGETATION AREAS ADJACENT TO PROPERTY LINES SHALL BE MAINTAINED TO A MINIMUM OF 10 FEET FROM THE PROPERTY LINE. PLANTING SHALL BE PERMITTED WITHIN THIS AREA PROVIDED THAT THE PLANTING DOES NOT OBSTRUCT ANY EXISTING OR FUTURE UTILITIES AND DOES NOT INTERFERE WITH ANY EXISTING OR FUTURE CONSTRUCTION. PLANTING SHALL BE PERMITTED WITHIN THIS AREA PROVIDED THAT THE PLANTING DOES NOT OBSTRUCT ANY EXISTING OR FUTURE UTILITIES AND DOES NOT INTERFERE WITH ANY EXISTING OR FUTURE CONSTRUCTION.

GENERAL NOTES

- ALL PLANTS SHALL BE SUBJECT TO REGULATION HERETOBY OF THE STATE AND FEDERAL AGENCIES AND SHALL BE SUBJECT TO THE FOLLOWING: (1) ALL PLANTS SHALL BE A MINIMUM OF 12" IN HEIGHT AND 1.5" IN CALIBER AT 7" ABOVE THE GROUND WHEN INSTALLED.
- ALL PLANTS SHALL BE SUBJECT TO REGULATION HERETOBY OF THE STATE AND FEDERAL AGENCIES AND SHALL BE SUBJECT TO THE FOLLOWING: (1) ALL PLANTS SHALL BE A MINIMUM OF 12" IN HEIGHT AND 1.5" IN CALIBER AT 7" ABOVE THE GROUND WHEN INSTALLED.

REFERENCE DRAWINGS

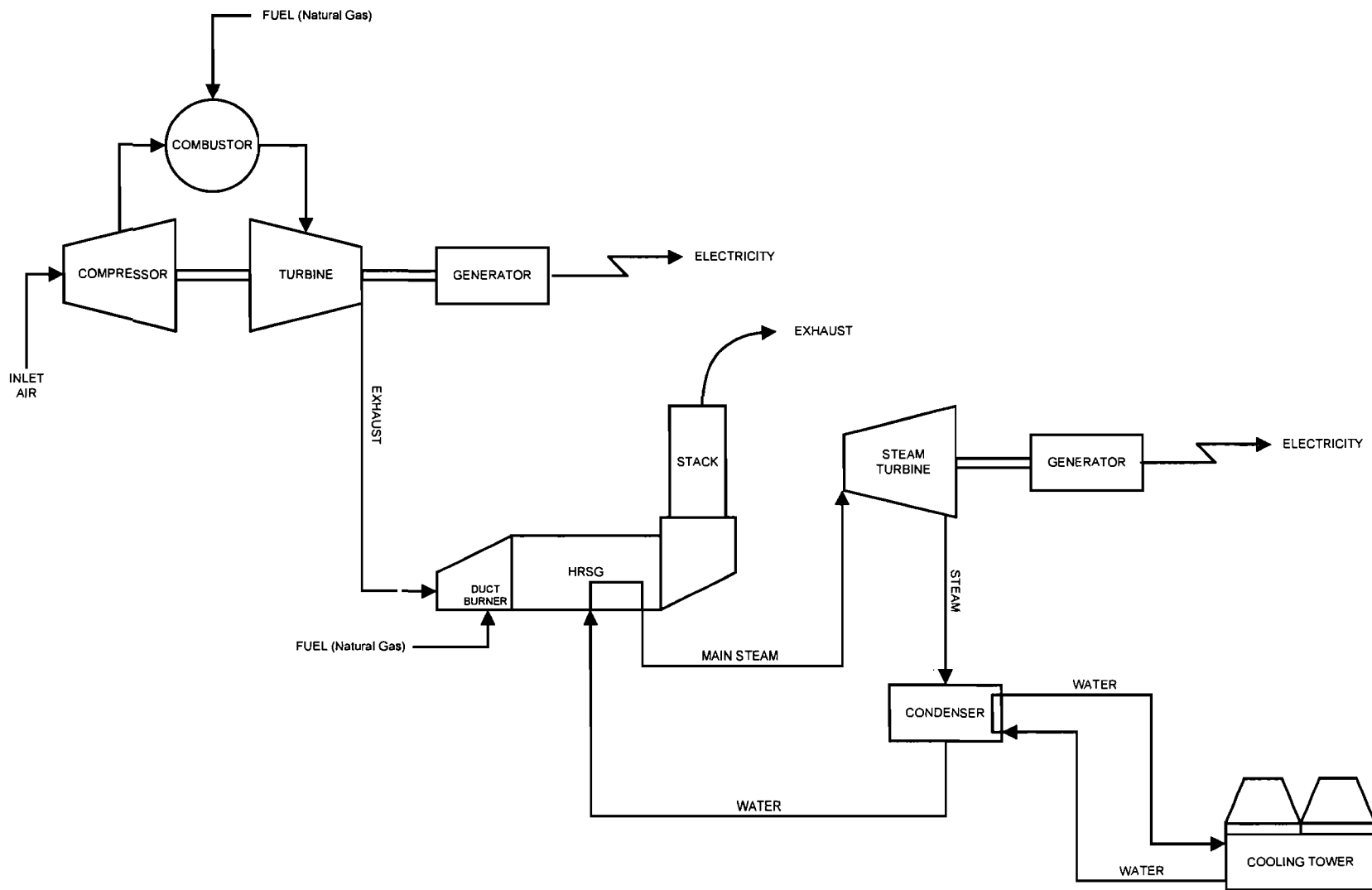
- SEE RELATED WORK: (OVERALL SITE PLAN)
- SEE RELATED WORK: (GENERAL NOTES)
- SEE RELATED WORK: (GENERAL NOTES)

SYM	QTY	BOTANICAL NAME	COMMON NAME	SPECIFICATIONS	SPECIFICATIONS
LA	24	LAURUS NERIS	WAX MYRTLE	PLANT 12" IN HEIGHT AND 1.5" IN CALIBER AT 7" ABOVE THE GROUND WHEN INSTALLED	SEE RELATED WORK: (OVERALL SITE PLAN)
MG	1	MAGNOLIA GRANDIFLORA	SOUTHERN MAGNOLIA	PLANT 12" IN HEIGHT AND 1.5" IN CALIBER AT 7" ABOVE THE GROUND WHEN INSTALLED	SEE RELATED WORK: (OVERALL SITE PLAN)
FR	24	FRAXINUS VIRGINIANA	WHITE BIRCH	PLANT 12" IN HEIGHT AND 1.5" IN CALIBER AT 7" ABOVE THE GROUND WHEN INSTALLED	SEE RELATED WORK: (OVERALL SITE PLAN)
OV	12	OSYRIS VIRGINIANA	SPICE SWYRTON	PLANT 12" IN HEIGHT AND 1.5" IN CALIBER AT 7" ABOVE THE GROUND WHEN INSTALLED	SEE RELATED WORK: (OVERALL SITE PLAN)
SP	24	SPARGANGLIS ANGUSTIFOLIA	SPICE SWYRTON	PLANT 12" IN HEIGHT AND 1.5" IN CALIBER AT 7" ABOVE THE GROUND WHEN INSTALLED	SEE RELATED WORK: (OVERALL SITE PLAN)
NOV	24	NOCTURNALIS FRAGRANS	STARBUCK'S PEPPERMINT	PLANT 12" IN HEIGHT AND 1.5" IN CALIBER AT 7" ABOVE THE GROUND WHEN INSTALLED	SEE RELATED WORK: (OVERALL SITE PLAN)

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**Attachment B**  
**Process Flow Diagrams**



Treasure Coast Energy Center  
 Combined Cycle Combustion Turbine  
 Process Flow Diagram

**Attachment C**

**Precautions to Prevent Emissions of Unconfined  
Particulate Matter**

## **Precautions to Prevent Emissions of Unconfined Particulate Matter**

The facility has negligible amounts of unconfined particulate matter as a result of the operation of the facility. Potential examples of particulate matter include:

- Fugitive dust from paved and unpaved roads;
- Sandblasting abrasive material from facility maintenance activities.

Several precautions are being taken to prevent emissions of particulate matter in the original design of the facility. These include:

- Paving of roads, parking areas and equipment yards;
- Landscaping and planting of vegetation.

Operational measures are undertaken at the facility which also minimize particulate emissions, in accordance with Rule 62-296.320(4)(c) F.A.C.:

- Maintenance of paved areas as needed;
- Regular mowing of grass and care of vegetation;
- Limiting access to plant property for unnecessary vehicles

**Attachment D**

**List of Insignificant and Unregulated Activities**

## List of Insignificant Emissions Units and/or Activities

FMPA  
Treasure Coast Energy Center  
Facility ID. No.: 1110121

The below listed emissions units and/or activities are considered insignificant pursuant to Rule 62-213.430(6), F.A.C.

### Brief Description of Emissions Units and/or Activities:

<u>Storage Tank</u>	<u>Contents</u>	<u>Volume (gallons)</u>
Backup Fuel Oil Tank	Fuel Oil	930,000
CTG Lubrication Oil Tank	Lube Oil	6,200
STG Lubrication Oil Tank	Lube Oil	3,500
STG Electro-hydraulic Control Oil Tank	Hydraulic Fluid	550
Emergency Generator Fuel Tank	Diesel Fuel	1,000
Fire Pump Fuel Tank	Diesel Fuel	500
Aqueous Ammonia Tank	19 % Aqueous Ammonia	41,000

## List of Trivial Activities

Indoor sand blasting and abrasive grit blasting where temporary enclosures are used to contain particulates

Open stockpiling of material

Plant grounds maintenance

Routine maintenance/repair activities such as cleaning, welding, grinding, non-asbestos insulation removal, hand held tools/equip., meter repair/maintenance, on-line/off-line cleaning of equip.

Indoor fugitives such as vacuum cleaning, solvent storage, office supplies/equipment

Testing equipment such as CEMs, stack sampling calibration gases, oxygen detector

Internal combustion engines which drive compressors, generators, water pumps, or other auxiliary equipment

HVAC (heating, ventilation, and air conditioning systems)

Vent/exhaust systems for:

- Print room storage cabinets
- Transformer bldg.
- Maint./welding bldgs.
- Operating equipment vents
- Degasifier/dearators/decarbonators
- Air blowers/evacuators/air locks
- Oil/water separator vents

Transformers, switches, and switchgear processing (including cleaning and changing)

Generator venting

Vent/exhaust from kitchen and breakrooms

Vents/stacks for sewer lines or enclosed areas req. for safety or by code

Sewage treatment fac./equip. ranging in size from porta-john to sewage treatment plants

Steam releases

Storage and use of chemicals solely for water/waste water treatment

Transfer sumps

Lawn maintenance equipment/activities

Application of fungicide, herbicide, pesticide

Air compressors and centrifuges used for compressing air

Recovered materials recycling systems including: bulb crushers, aerosol can puncturing

Waste accumulation/consolidation

Compressed air system

Storage tanks less than 550 gallons

Storage of products in sealed containers

Fires

Chemical spills, leaks & transfers

Oil spills, leaks & change out

Insulating activities

Asphalt or concrete sealing

High pressure water blasting

Excavation for construction activities

Chemical cleaning

Welding all types

Cutting all types

Sanding or grinding all types

Emissions from portable equipment  
    Welding machines (diesel or gas)  
    Pumps (diesel or gas)

Sweeping

Filter change out (oil & air)



Air conditioner repairs

Battery maintenance

Fuel oil storage tank cleaning

A/C servicing by licensed contractor

Lube oil changes

Receiving fuel oil (trucks & pipeline)

Aerosol can use (cleaners, etc.)

Turbine washing

Vehicle servicing (oil changes, antifreeze changes, etc.)

Soldering of electrical components (silver, tinned solder)

Portable equipment and tools, including electric and gasoline powered

Electro plating

Welding, grinding and cutting activities (metal fumes)

Machining metal parts (cutting oil, metal fumes)

Oil-filled electrical equipment vents

Fume hood in laboratory

Space heaters

Fire and safety equipment

Portable emergency generators

Mercury containing equipment such as manometers

Non-chlorinated solvent degreasing equipment

Vacuum pumps in laboratory operations

Equipment use for steam cleaning

**Attachment E**  
**List of Applicable Requirements**

## Attachment E - List of Applicable Requirements

FMPA

TCEC

Facility ID No.: 1110121

The Treasure Coast Energy Center currently operates under the PSD Construction Permit 1110121-001-AC (PSD-353), which was issued under the provisions of Chapter 403, Florida Statutes (F.S.); Florida Administrative Code (F.A.C.) Chapters 62-4, 62-204, 62-210, 62-212, 62-296 and 62-297; The following requirements are applicable.

### Applicable Requirements for the Entire Facility

State: Rule 62-4.070 – Standards for Issuing or Denying Permits.

State: Rule 62-210.300 – Permits Required.

State: Rule 62-212.300 – General Preconstruction Review Requirements.

State: Rule 62-212.400 – Prevention of Significant Deterioration.

### Applicable Requirements for the GE 7FA Combined Cycle Combustion Turbine

#### Not Applicable Federal:

40 CFR Part 63 Subpart YYYYY, *National Emission Standards for Stationary Combustion Turbines*. This standard is only applicable to emission units at a facility that is a major source of HAPs. Because the Treasure Coast Energy Center will not be a major source of HAPs, 40 CFR 63 Subpart YYYYY does not apply to the combustion turbine.

40 CFR Part 60 Subpart GG (Rule 62-204.800(8)(b).39) – *Standards of Performance for Stationary Gas Turbines*. Since the combined cycle combustion turbine, including the duct burner is subject to the requirements of NSPS Subpart KKKK, NSPS Subpart GG is not applicable.

40 CFR Part 60 Subpart Da (Rule 62-204.800(8)(b).39) – *Standards of Performance for Electric Utility Steam Generators for Which Construction is Commenced After September 18, 1978*. Since the combined cycle combustion turbine, including the duct burner is subject to the requirements of NSPS Subpart KKKK, NSPS Subpart Da is not applicable.

40 CFR Part 60 Subpart Kb – *Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984*. The distillate fuel oil

tank has a capacity greater than or equal to 40,000 gallons (151 cubic meters) and is storing a liquid with a maximum true vapor pressure less than 3.5 kPa, and is therefore not subject to Subpart Kb.

The Clean Air Interstate Rule (CAIR) and the Clean Air Mercury Rule (CAMR) have been vacated at the federal level and as such are not applicable. As such, these programs are further presumed to be not applicable at the State level.

**Applicable Federal:**

The following rules are applicable to the Combined Cycle Combustion Turbine, including the duct burner:

40 CFR Part 60 Subpart KKKK – *Standards of Performance for Stationary Gas Turbines*  
Federal: 40 CFR Part 60 Subpart A – *General Provisions*.

Federal: 40 CFR Part 72 – *Permits Regulation (Acid Rain)*

Federal: 40 CFR Part 75 – *Continuous Emissions Monitoring*

State: Rule 62-204.800(8)(d) – *General Provisions Adopted – 40 CFR 60 Subpart A – General Provisions adopted by reference, with exceptions.*

**Applicable State:**

Rule 62-212.400 – *Prevention of Significant Deterioration* applies to CO, NO<sub>x</sub>, SO<sub>2</sub>, PM, PM<sub>10</sub>, and sulfuric acid mist. See the technical support document accompanying this application for a more detailed discussion of PSD applicability.

Rule 62-212.300 – *General Preconstruction Review Requirements*. Applies to applicable pollutants not subject to PSD review.

State: Rule 62-297.310 – *General Compliance Test Requirements*.

**Applicable Requirements for the Diesel Engine Fire Pump**

NOT APPLICABLE - Federal: 40 CFR Part 63 Subpart ZZZZ, *National Emission Standards for Reciprocating Internal Combustion Engines*. This standard is only applicable to emission units at a facility that is a major source of HAPs. Because the Treasure Coast Energy Center will not be a major source of HAPs, 40 CFR 63 Subpart ZZZZ does not apply to the diesel engine fire pump.

The following rules are applicable to the Diesel Engine Fire Pump:

Federal: 40 CFR part 60 Subpart IIII, *New Source Performance Standards for Stationary Compression Ignition Internal Combustion Engines*.

State: Rule 62-212.400 – *Prevention of Significant Deterioration (PSD)*

### **Applicable Requirements for the Safe Shutdown Diesel Generator**

NOT APPLICABLE - Federal: 40 CFR Part 63 Subpart ZZZZ, *National Emission Standards for Reciprocating Internal Combustion Engines*. This standard is only applicable to emission units at a facility that is a major source of HAPs. Because the Treasure Coast Energy Center will not be a major source of HAPs, 40 CFR 63 Subpart ZZZZ does not apply to the safe shutdown diesel generator.

The following rules are applicable to the Safe Shutdown Diesel Generator:

Federal: 40 CFR part 60 Subpart IIII, New Source Performance Standards for Stationary Compression Ignition Internal Combustion Engines.

State: Rule 62-212.400 – *Prevention of Significant Deterioration (PSD)*

This Application also incorporates by reference all permit conditions listed in the Construction Permit PSD-353, subject to other requested clarifications and deletions as identified in Section 3.0 of the application support document.

### **Additional Applicable Requirements**

Currently, FMPA has identified and addressed all applicable regulatory requirements. If new regulatory requirements become applicable in the future, or if non-compliance items are discovered after submittal of this application, the necessary steps will be taken to ensure compliance in a timely manner. This is in accordance with company policy of maintaining continuous compliance with all applicable rules and regulations.

**Attachment F**  
**Compliance Report and Plan**

## **Compliance Report and Plan**

At the time of the filing of this application, all units are in compliance with applicable rules and regulations.

**Attachment G**

**List of Equipment/Activities Regulated Under Title VI**



## List of Equipment/Activities Regulated Under Title VI

There are no equipment on site that contain more than 50 pounds of charge of any Class I or Class II ozone-depleting substances regulated under Title VI of the Clean Air Act.

**Attachment H**

**Verification of Risk Management Plan Submittal**

## **Verification of Risk Management Plan Submittal**

Submission of a Risk Management Plan (RMP) is not required since 19 percent aqueous ammonia is used in the SCR system. TCEC is exempt from RMP requirements.

# Airgas

AMMONIA  
MSDS

Material Safety Data Sheet # 4003

Last Revision 02/19/08

Page 1 of 2

## SECTION 1: CHEMICAL PRODUCT & COMPANY IDENTIFICATION

**CHEMICAL NAME:** Ammonium Hydroxide      **TRADE NAMES / SYNONYMS:** Aqua Ammonia, Ammonium Hydroxide  
**MANUFACTURER AND/OR DISTRIBUTOR:** Airgas Specialty Products  
6340 Sugarloaf Parkway, 300  
Duluth, GA 30097 USA

**EMERGENCY TELEPHONE NUMBERS:**  
Transportation (CHEMTREC): 1-800-424-9300  
Environmental/Health/Safety (24-hr): 1-800-528-4963  
Customer Service (Toll Free): 1-877-295-2225

## SECTION 2: COMPOSITION / INFORMATION ON INGREDIENTS

CHEMICAL	FORMULA	% BY WEIGHT	CAS	OSHA PEL	NIOSH REL / ACGIH TLV	IDLH	
Ammonia	NH <sub>3</sub>	5-19.9	7664-41-7	25 ppm (California only) 50 ppm (TWA)	25 ppm (TWA)	35 ppm (STEL)	300ppm
Water	H <sub>2</sub> O	80.1-95	7732-18-5	None	None	None	
Aqua Ammonia	NH <sub>4</sub> OH	100	1336-21-6	-----	-----	-----	

## SECTION 3: HAZARDS IDENTIFICATION

**EMERGENCY OVERVIEW:** 1. Colorless liquid with a pungent odor. 2. Avoid contact with liquid and vapor. 3. Not flammable. 4. Mixes with water. 5. Harmful to aquatic life in very low concentrations. 6. Stop discharge if possible.

### POTENTIAL HEALTH EFFECT

**ROUTES OF ENTRY:** Inhalation, Skin Contact, Eye Contact, Ingestion      **TARGET ORGANS:** Eyes, skin and respiratory system.  
**EYE CONTACT:** May be severely irritating upon liquid exposure, with irritation from fumes.      **SKIN CONTACT:** High concentrations can cause severe irritation and burns.      **INHALATION:** The gas can be suffocating and is irritating to the mucous membranes and lung tissue.      **INGESTION:** Can cause vomiting, nausea and corrosive burns to the esophagus and stomach. The exact nature and intensity of toxic effects following ingestion of varying amounts of strong aqua ammonia solution (ex. 28%) is unpredictable. The most accepted view is that any amount from one teaspoon or greater can be dangerous if ingested.

## SECTION 4: FIRST AID MEASURES

**EYE CONTACT:** Flush with large amounts of water for at least 15 minutes then immediately seek medical aid.  
**SKIN CONTACT:** Immediately flush with large quantities of water for at least 15 minutes while removing clothing. Seek immediate medical aid.  
**INHALATION:** Remove from exposure. If breathing has stopped or is difficult, administer artificial respiration or oxygen as needed. Seek immediate medical aid.  
**INGESTION:** Do not induce vomiting. Have victim drink large quantities of water if conscious. Immediately seek medical aid. Never give anything by mouth to an unconscious person.

## SECTION 5: FIRE FIGHTING MEASURES

**FLASH POINT(method used):** Not Applicable      **FLAMMABLE LIMITS:** 16-25% NH<sub>3</sub> in air (for labeling purposes, not DOT flammable gas).      **EXTINGUISHING MEDIA:** Water fog or spray for escaping ammonia gas.  
**SPECIAL FIRE FIGHTING PROCEDURES:** The mixture will not burn but escaping gas can burn in the range of 16-25% NH<sub>3</sub> in air. Wear full protective clothing and self-contained breathing apparatus in the pressure demand mode.  
**NFPA HAZARD CLASSIFICATION (Aqua):** Health: 2      Flammability: 1      Reactivity: 0      (least-0 — 4-highest)

## SECTION 6: ACCIDENTAL RELEASE MEASURES

In US, federal regulations require that a release of 1,000 lb. or more of ammonium hydroxide must be reported immediately to the National Response Center at (800) 424-8802, the SERC and the LEPC. In California, ALL releases must be reported to CUPA, state and local agencies. Additional state and local regulations may apply.      **SUGGESTED LOCAL ACTION:** Releases will liberate irritating vapors. Spilled liquids should be contained and not washed into sewers or ground water. Prevent large quantities from contact with vegetation or waterways. Ammonium hydroxide is a regulated material and reporting of any release may be required. Any release of this material during the course of loading, transporting, unloading or temporary storage must be reported to the U.S. DOT as required by 49 CFR 171.15 and 171.16.

## SECTION 7: HANDLING AND STORAGE

Store in ventilated containers or pressure vessels away from heat. Open containers cautiously in case of pressure build up. Zinc, copper and copper alloys such as brass are rapidly corroded by ammonium hydroxide.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

**RESPIRATORY PROTECTION:** Respiratory protection approved by NIOSH / MSHA for ammonia must be used when exposure limits are exceeded. Whether chemical canister respirator or self-contained breathing apparatus is sufficient for effective respiratory protection depends on the type and magnitude of exposure.  
**SKIN PROTECTION:** Rubber gloves and rubber or other types of approved protective clothing should be used to prevent skin contact. A face shield should be used for increased protection from contact with liquid or vapor.  
**EYE PROTECTION:** Chemical splash goggles, approved for use with ammonia, must be worn to prevent eye contact with liquid vapor. A face shield should be used for increased protection from contact with liquid.  
**VENTILATION:** Local positive pressure and/or exhaust ventilation should be used to reduce vapor concentrations in confined spaces. Ammonia vapor, being lighter than air, can be expected to dissipate to the upper atmosphere. Ammonia concentrations may also be reduced by the use of an appropriate absorbent or reactant material.

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

**BOILING POINT:** 160°F (10% Sol'n.)  
**SOLUBILITY IN WATER:** Complete  
**MELTING POINT:** Approx 15°F (10% Sol'n.)  
**PERCENT VOLATILE BY VOLUME:** 100%  
**VAPOR PRESSURE:** 130 mm Hg @ 80°F (10% Sol'n.)

**SPECIFIC GRAVITY:** 0.928 @ 60°F (19.5% Sol'n., water=1)  
**VAPOR DENSITY:** 0.60 @ 32°F (Air=1)  
**pH:** Approx. 11.6 for 1 N Sol'n. in water  
**APPEARANCE:** Colorless, pungent liquid

**SECTION 10: STABILITY AND REACTIVITY**

**STABILITY:** Material generally considered stable. Heating above ambient temperature causes the vapor pressure of ammonia to increase rapidly.

**INCOMPATIBILITY (materials to avoid):** Strong acids. Aqua ammonia reacts with bromine, chlorine, mercury, silver, silver solder and hypochlorite (bleach) to form explosive compounds. Avoid use of metals containing copper or zinc.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Heating and contact of vapors with very hot surfaces may form hydrogen. The decomposition temperature may be lowered to 575°F by contact with certain metals such as nickel.

**HAZARDOUS POLYMERIZATION:** Will not occur **CONDITIONS TO AVOID:** Not applicable

**SECTION 11: TOXICOLOGICAL INFORMATION**

**TOXICITY BY INGESTION:** Grade 3; Oral Rat, LD<sub>50</sub> = 350 mg/kg. Ammonia is a strong alkali and readily damages all body tissues. Ammonia is not a cumulative metabolic poison.

**SECTION 12: ECOLOGICAL INFORMATION**

**AQUATIC TOXICITY:** 6.25 ppm 24hr/Trout/Lethal/Freshwater; 15ppm 48hr/Sunfish/TLm/Tap Water

**WATERFOWL TOXICITY:** Data not available **BIOCHEMICAL OXYGEN DEMAND:** Data not available

**FOOD CHAIN CONCENTRATION POTENTIAL:** None

**SECTION 13: DISPOSAL CONSIDERATIONS**

Consult local, state or federal regulatory agencies for acceptable disposal procedures and disposal locations. Disposal in streams or sewers is generally contrary to federal, state, and local regulations. For Hazardous Waste Regulations call (800) 424-9346, the RCRA Hotline.

**SECTION 14: TRANSPORT INFORMATION**

	5-10% Ammonia Solutions	>10-19.9% Ammonia Solutions
Proper shipping name:	Corrosive Liquid, N.O.S. (contains ammonia)	Ammonium Hydroxide
DOT Hazard Class:	8	8
Identification Number:	UN1760	UN2672
Packing Group:	III	III

**SECTION 15: REGULATORY INFORMATION**

**NOTICE:** This product is subject to the reporting requirements of SARA (1986, Section 313 of Title III) and 40 CFR Part 370.

**CERCLA/SUPERFUND, 40 CFR 117.302:** Unpermitted releases of 1,000 lb. or more of ammonium hydroxide in any 24-hour period must be reported immediately to the NRC at 1-800-424-8802, the SERC, and the LEPC. Written follow-up is required to SERC & LEPC.

**OSHA HAZARD COMMUNICATION RULE, 20 CFR 1910.1200:** Aqua ammonia is a hazardous chemical.

**TOXIC SUBSTANCE CONTROL ACT:** This material is listed in the TSCA Inventory.

**EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT (SARA, TITLE III):** Section 302 Extremely Hazardous Substance: Yes; Section 311/312 Hazardous Categories: Immediate (Acute) Health Hazards; Section 313 Toxic Chemical: Yes (as ammonia); **WHMIS:** One percent (1%) as ammonia. **CALIFORNIA PROPOSITION 65:** Reproductive: No Carcinogen: No

**OSHA PROCESS SAFETY MANAGEMENT, 29 CFR 1910.119:** This product is NOT subject to the Process Safety Management requirements of 29 CFR 1910.119.

**EPA CHEMICAL ACCIDENTAL RELEASE PREVENTION, 40 CFR PART 68:** This product is NOT subject to the Risk Management

Plan requirements of 40 CFR Part 68. **DRINKING WATER:** Maximum use dosage in potable water is 10mg/l.

**SECTION 16: OTHER INFORMATION**

**REASON FOR REVISION:** 1. Addition of new Toll Free Customer Service Number in Section 1.

2. Revision to concentration range in section 2. 3. Revision to proper DOT Shipping Name. 4. Revision to EPCRA Section 302 information in Section 15; 6. Revised LEL and UEL. 7. Company Name Change. 8. Revised LEL and UEL.

**MSDS PREPARED BY:** Airgas Specialty Products

This information is taken from sources or based upon data believed to be reliable, however, Airgas Specialty Products makes no warranty as to the absolute correctness or sufficiency of any of the foregoing or that additional or other measures may not be required under particular conditions.

**Attachment I**  
**Fuel Analysis Specifications**

## **Fuel Analysis Specifications**

Fuel is specified as pipeline natural gas or ultra low sulfur No. 2 fuel oil containing no more than 0.0015 percent sulfur. Additionally, a fuel oil sample analysis report is attached here.

**Report of Analysis**

*Vessel / Tank*      **Submitted Sample**      **6 Trucks Sampled on 2-25-08**  
*Lab Ref No.*      **PE2008 - 24122**  
*Terminal / Port*      **Fort Pierce, Florida**  
*Submitted by*      **Personnel of Fort Pierce Utility Florida**  
*Sample*      **Ultra Low Sulphur Diesel**      *WO* **US4002008001**  
*Date Sampled*      **25-Feb-08**      *Customer Ref No:*  
*Date Submitted*      **29-Feb-08**      *Date Tested*      **04-Mar-08**  
*Samples Tested*      **Running**

<u>Method</u>	<u>Description</u>		<u>Results</u>	<u>Units</u>
D4052	Density @ 15 deg C	Truck 9251-S	<b>0.8556</b>	kg/l
D5453-03a	Sulfur		<b>6.7</b>	ppm
D4809-06	Gross Heat of Combustion		<b>19,952.0</b>	Btu/lb
			<b>46.408</b>	MJ/kg
D4052	Density @ 15 deg C	Truck 0794	<b>0.894</b>	kg/l
D5453-03a	Sulfur		<b>5.3</b>	ppm
D4809-06	Gross Heat of Combustion		<b>19,510.0</b>	Btu/lb
			<b>45.380</b>	MJ/kg
D4052	Density @ 15 deg C	Truck 9354	<b>0.8556</b>	kg/l
D5453-03a	Sulfur		<b>7.0</b>	ppm
D4809-06	Gross Heat of Combustion		<b>19,544.0</b>	Btu/lb
			<b>45.459</b>	MJ/kg
D4052	Density @ 15 deg C	Truck 9354	<b>0.8499</b>	kg/l
D5453-03a	Sulfur		<b>6.9</b>	ppm
D4809-06	Gross Heat of Combustion		<b>19,503.0</b>	Btu/lb
			<b>45.364</b>	MJ/kg
D4052	API Gravity @ 60 F	Truck 9253	<b>0.8535</b>	
D5453-03a	Sulfur		<b>7.4</b>	ppm
D4809-06	Gross Heat of Combustion		<b>19,730.0</b>	Btu/lb
			<b>45.892</b>	MJ/kg
D4052	API Gravity @ 60 F	Truck 9253	<b>0.8535</b>	
D5453-03a	Sulfur		<b>7.3</b>	ppm
D4809-06	Gross Heat of Combustion		<b>19,508.0</b>	Btu/lb

*for Intertek Caleb*  
Donovan Yapp  
Assist Lab Manager

*The information contained herein is based on laboratory tests and observations performed by Intertek Caleb Brett. The sample was submitted solely for testing.*



**Vessel / Tank**                      **Submitted Sample**                      **6 Trucks Sampled on 2-25-08**  
**Lab RefNo.**                      **PE2008 - 24122**  
**Terminal / Port**                      **Fort Pierce, Florida**  
**Submitted by**                      **Personnel of Fort Pierce Utility Florida**  
**Sample**                      **Ultra Low Sulphur Diesel**                      **WO US4002008001**  
**Date Sampled**                      **25-Feb-08**                      **Customer Ref No:**  
**Date Submitted**                      **29-Feb-08**                      **Date Tested**    **04-Mar-08**  
**Samples Tested**                      **Running**

<u>Method</u>	<u>Description</u>	<u>Results</u>	<u>Units</u>
D4809-06	Gross Heat of Combustion	45.376	MJ/kg

*for Intertek Caleb*  
 Donovan Yapp  
 Assist Lab Manager

*The information contained herein is based on laboratory tests and observations performed by Intertek Caleb Brett. The sample was submitted solely for testing.*

*Friday, March 07, 2008*

*1881 W State Rd 84, Bay 105, Ft Lauderdale, Florida,*

*Page 2 of 2*

**Attachment J**

**Procedures for Startup and Shutdown**

## **Procedures for Startup and Shutdown**

Procedures for startup and shutdown will be completed in accordance with the manufactures' operating procedures and/or based on plant experience. Excess emissions resulting from startup and shutdown are permitted in condition 18 of PSD-FL-353. Additionally, FMPA is requesting clarifications to startup and shutdown-related excess emissions in Section 3.0 of the application support document.

**Attachment K**

**O&M Plan**

## O&M Plan

The emission units will be operated and maintained in accordance with manufacturer's recommendations, operations and maintenance experience, and technical guidance taking into account protection of equipment, safety of personnel and other factors as deemed necessary to maintain compliance with the permitted limits.

**Attachment L**  
**Compliance Assurance Monitoring Plan**

## Compliance Assurance Monitoring Plan

Rule 62-204.800 adopts the federal compliance assurance monitoring (CAM) rule by reference. CAM is applicable to emission units meeting the following requirements:

- subject to an emission limitation or standard
- has a control device to meet that emission limitation or standard
- has precontrol emissions greater than 100 tons/year

Unit 1 is subject to the CAM Plan requirement since it meets all of the conditions above for NO<sub>x</sub>. However, the rule allows for exemption units which employ a continuous emissions control device for the affected pollutant. Since Unit 1 has a NO<sub>x</sub> CEMS installed, it is exempt from having a CAM Plan.

**Attachment M**  
**Alternative Methods of Operation**



## Alternative Methods of Operation

Unit 1 can be operated on either pipeline quality natural gas as the primary fuel or ultra low sulfur (0.0015 percent) No. 2 fuel oil as an alternate fuel. Additionally, Unit 1 can perform the following methods of operation:

- Combined cycle operation.
- Pseudo simple cycle operation to dump steam from the heat recovery steam generator (HRSG) directly to the condenser.
- Inlet fogging using evaporative cooling to reduce the compressor inlet air temperature.
- Duct firing of natural gas in the HRSG.

**Attachment N**  
**Detailed Description of Control Equipment**

## Detailed Description of Control Equipment

**Dry Low-NO<sub>x</sub> (DLN) Burners:** NO<sub>x</sub> formation can be limited by lowering combustion temperatures and by staging combustion (i.e., creating a reducing atmosphere followed by an oxidizing atmosphere). These combustor designs are called DLN burners because, when firing natural gas, injecting water into the combustion chamber is not necessary to achieve low NO<sub>x</sub> emissions. This type of lean premix combustion system is the state of the art for NO<sub>x</sub> controls in combustion turbines and is virtually an industry standard.

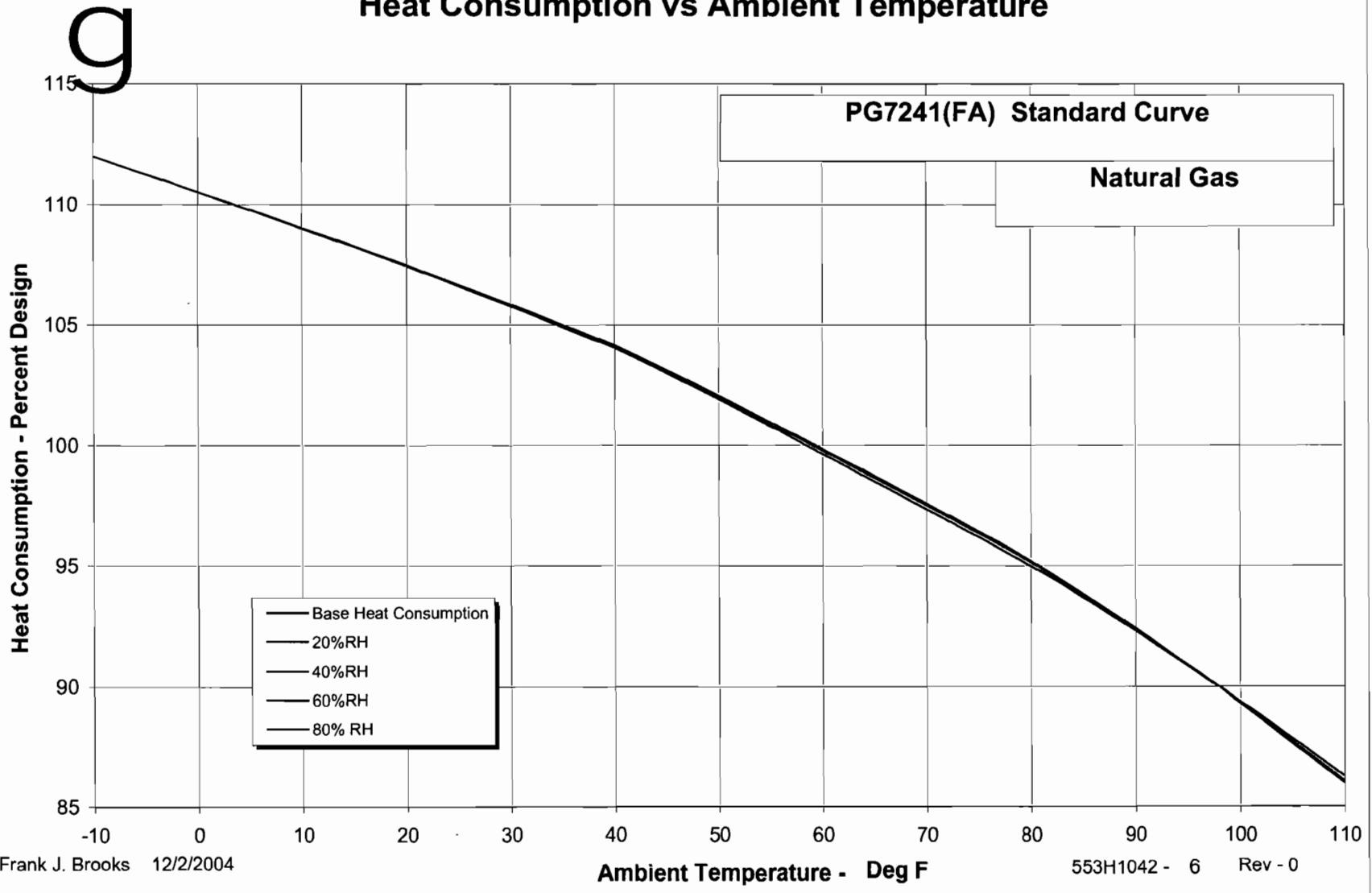
**Water Injection:** A control technology used to limit NO<sub>x</sub> emissions. The thermal NO<sub>x</sub> contribution to total NO<sub>x</sub> emissions is reduced by lowering the combustion temperature through the use of water injection in the combustion zones of the combustion turbine. The degree of reduction in NO<sub>x</sub> formation is proportional to the amount of water injected into the combustion turbine. A limit exists, however, on the amount of water that can be injected into the system before reliability of the combustion turbine is seriously degraded and operational life is affected. This type of control can also be counterproductive with regard to CO and VOC emissions that are formed as a result of incomplete combustion. The development of dry low-NO<sub>x</sub> burners has replaced the use of wet controls, except for certain cases, such as oil firing. Since Unit 1 will fire natural gas as the primary fuel with ultra-low sulfur fuel oil as a back up, water injection is typically only used during oil firing.

**Selective Catalytic Reduction (SCR):** A post-combustion control technology used to limit NO<sub>x</sub> emissions. The SCR process combines vaporized ammonia with NO<sub>x</sub> in the presence of a catalyst to form nitrogen and water. The vaporized ammonia is injected into the combustion turbine exhaust gases prior to passage through the catalyst bed. The use of SCR results in small levels of ammonia emissions (ammonia slip). As the catalyst degrades ammonia slip will increase to approximately 5 -10 ppmvd (dependent on system design), ultimately requiring catalyst replacement. The performance and effectiveness of SCR systems are directly dependent on the temperature of the flue gas when it passes through the catalyst. The flue gas temperature range for optimum SCR operation using a conventional vanadium/titanium catalyst is approximately 600 to 750° F. For Unit 1, the flue gas temperature in the HRSG of the CTG/HRSG typically ranges from 600° F to 800° F.

**Drift Eliminators:** The mechanical draft cooling tower will include drift eliminators to achieve a design drift rate of 0.0005 percent, thus minimizing PM and PM<sub>10</sub> emissions. The drift eliminators rely on inertial separation caused by direction changes while passing through the eliminators.

**Attachment O**  
**TCEC CT Chart**

### Heat Consumption vs Ambient Temperature



**Attachment P**  
**Acid Rain Forms**

# Acid Rain Part Application

For more information, see instructions and refer to 40 CFR 72.30, 72.31, and 74; and Chapter 62-214, F.A.C.

This submission is:  New  Revised  Renewal

## STEP 1

Identify the source by plant name, state, and ORIS or plant code.

Treasure Coast Energy Center	FL	56400
Plant name	State	ORIS/Plant Code

## STEP 2

Enter the unit ID# for every Acid Rain unit at the Acid Rain source in column "a."

If unit a SO<sub>2</sub> Opt-in unit, enter "yes" in column "b".

For new units or SO<sub>2</sub> Opt-in units, enter the requested information in columns "d" and "e."

a	b	c	d	e
Unit ID#	SO <sub>2</sub> Opt-in Unit? (Yes or No)	Unit will hold allowances in accordance with 40 CFR 72.9(c)(1)	New or SO <sub>2</sub> Opt-in Units  Commence Operation Date	New or SO <sub>2</sub> Opt-in Units  Monitor Certification Deadline
Unit1	No	Yes		
		Yes		
		Yes		
		Yes		
		Yes		
		Yes		
		Yes		
		Yes		
		Yes		
		Yes		
		Yes		
		Yes		
		Yes		

Treasure Coast Energy Center

Plant Name (from STEP 1)

### STEP 3

#### Read the standard requirements.

#### Acid Rain Part Requirements.

- (1) The designated representative of each Acid Rain source and each Acid Rain unit at the source shall:
  - (i) Submit a complete Acid Rain Part application (including a compliance plan) under 40 CFR Part 72 and Rules 62-214.320 and 330, F.A.C., in accordance with the deadlines specified in Rule 62-214.320, F.A.C.; and
  - (ii) Submit in a timely manner any supplemental information that the DEP determines is necessary in order to review an Acid Rain Part application and issue or deny an Acid Rain Part;
- (2) The owners and operators of each Acid Rain source and each Acid Rain unit at the source shall:
  - (i) Operate the unit in compliance with a complete Acid Rain Part application or a superseding Acid Rain Part issued by the DEP; and
  - (ii) Have an Acid Rain Part.

#### Monitoring Requirements.

- (1) The owners and operators and, to the extent applicable, designated representative of each Acid Rain source and each Acid Rain unit at the source shall comply with the monitoring requirements as provided in 40 CFR Part 75, and Rule 62-214.420, F.A.C.
- (2) The emissions measurements recorded and reported in accordance with 40 CFR Part 75 shall be used to determine compliance by the unit with the Acid Rain emissions limitations and emissions reduction requirements for sulfur dioxide and nitrogen oxides under the Acid Rain Program.
- (3) The requirements of 40 CFR Part 75 shall not affect the responsibility of the owners and operators to monitor emissions of other pollutants or other emissions characteristics at the unit under other applicable requirements of the Act and other provisions of the operating permit for the source.
- (4) For applications including a SO<sub>2</sub> Opt-in unit, a monitoring plan for each SO<sub>2</sub> Opt-in unit must be submitted with this application pursuant to 40 CFR 74.14(a). For renewal applications for SO<sub>2</sub> Opt-in units include an updated monitoring plan if applicable under 40 CFR 75.53(b).

#### Sulfur Dioxide Requirements.

- (1) The owners and operators of each source and each Acid Rain unit at the source shall:
  - (i) Hold allowances, as of the allowance transfer deadline, in the unit's compliance subaccount (after deductions under 40 CFR 73.34(c)), or in the compliance subaccount of another Acid Rain unit at the same source to the extent provided in 40 CFR 73.35(b)(3), not less than the total annual emissions of sulfur dioxide for the previous calendar year from the unit; and
  - (ii) Comply with the applicable Acid Rain emissions limitations for sulfur dioxide.
- (2) Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide shall constitute a separate violation of the Act.
- (3) An Acid Rain unit shall be subject to the requirements under paragraph (1) of the sulfur dioxide requirements as follows:
  - (i) Starting January 1, 2000, an Acid Rain unit under 40 CFR 72.6(a)(2); or
  - (ii) Starting on the later of January 1, 2000, or the deadline for monitor certification under 40 CFR Part 75, an Acid Rain unit under 40 CFR 72.6(a)(3).
- (4) Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program.
- (5) An allowance shall not be deducted in order to comply with the requirements under paragraph (1) of the sulfur dioxide requirements prior to the calendar year for which the allowance was allocated.
- (6) An allowance allocated by the Administrator under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the Acid Rain Part application, the Acid Rain Part, or an exemption under 40 CFR 72.7 or 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.
- (7) An allowance allocated by the Administrator under the Acid Rain Program does not constitute a property right.

Nitrogen Oxides Requirements. The owners and operators of the source and each Acid Rain unit at the source shall comply with the applicable Acid Rain emissions limitation for nitrogen oxides.

#### Excess Emissions Requirements.

- (1) The designated representative of an Acid Rain unit that has excess emissions in any calendar year shall submit a proposed offset plan, as required under 40 CFR Part 77.
- (2) The owners and operators of an Acid Rain unit that has excess emissions in any calendar year shall:
  - (i) Pay without demand the penalty required, and pay upon demand the interest on that penalty, as required by 40 CFR Part 77; and
  - (ii) Comply with the terms of an approved offset plan, as required by 40 CFR Part 77.

#### Recordkeeping and Reporting Requirements.

- (1) Unless otherwise provided, the owners and operators of the source and each Acid Rain unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 5 years, in writing by the EPA or the DEP:
  - (i) The certificate of representation for the source and each Acid Rain unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with Rule 62-214.350, F.A.C.; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation changing the designated representative;
  - (ii) All emissions monitoring information, in accordance with 40 CFR Part 75, provided that to the extent that 40 CFR Part 75 provides for a 3-year period for recordkeeping, the 3-year period shall apply;
  - (iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program; and



Treasure Coast Energy Center

Plant Name (from STEP 1)

**STEP 3,  
Continued.**

Recordkeeping and Reporting Requirements (cont)

(iv) Copies of all documents used to complete an Acid Rain Part application and any other submission under the Acid Rain Program or to demonstrate compliance with the requirements of the Acid Rain Program.

(2) The designated representative of an Acid Rain source and each Acid Rain unit at the source shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR Part 72, Subpart I, and 40 CFR Part 75.

Liability.

(1) Any person who knowingly violates any requirement or prohibition of the Acid Rain Program, a complete Acid Rain Part application, an Acid Rain Part, or an exemption under 40 CFR 72.7 or 72.8, including any requirement for the payment of any penalty owed to the United States, shall be subject to enforcement pursuant to section 113(c) of the Act.

(2) Any person who knowingly makes a false, material statement in any record, submission, or report under the Acid Rain Program shall be subject to criminal enforcement pursuant to section 113(c) of the Act and 18 U.S.C. 1001.

(3) No permit revision shall excuse any violation of the requirements of the Acid Rain Program that occurs prior to the date that the revision takes effect.

(4) Each Acid Rain source and each Acid Rain unit shall meet the requirements of the Acid Rain Program.

(5) Any provision of the Acid Rain Program that applies to an Acid Rain source (including a provision applicable to the designated representative of an Acid Rain source) shall also apply to the owners and operators of such source and of the Acid Rain units at the source.

(6) Any provision of the Acid Rain Program that applies to an Acid Rain unit (including a provision applicable to the designated representative of an Acid Rain unit) shall also apply to the owners and operators of such unit. Except as provided under 40 CFR 72.44 (Phase II repowering extension plans) and 40 CFR 76.11 (NO<sub>x</sub> averaging plans), and except with regard to the requirements applicable to units with a common stack under 40 CFR Part 75 (including 40 CFR 75.16, 75.17, and 75.18), the owners and operators and the designated representative of one Acid Rain unit shall not be liable for any violation by any other Acid Rain unit of which they are not owners or operators or the designated representative and that is located at a source of which they are not owners or operators or the designated representative.

(7) Each violation of a provision of 40 CFR Parts 72, 73, 74, 75, 76, 77, and 78 by an Acid Rain source or Acid Rain unit, or by an owner or operator or designated representative of such source or unit, shall be a separate violation of the Act.

Effect on Other Authorities.

No provision of the Acid Rain Program, an Acid Rain Part application, an Acid Rain Part, or an exemption under 40 CFR 72.7 or 72.8 shall be construed as:

(1) Except as expressly provided in title IV of the Act, exempting or excluding the owners and operators and, to the extent applicable, the designated representative of an Acid Rain source or Acid Rain unit from compliance with any other provision of the Act, including the provisions of title I of the Act relating to applicable National Ambient Air Quality Standards or State Implementation Plans;

(2) Limiting the number of allowances a unit can hold; *provided*, that the number of allowances held by the unit shall not affect the source's obligation to comply with any other provisions of the Act;

(3) Requiring a change of any kind in any state law regulating electric utility rates and charges, affecting any state law regarding such state regulation, or limiting such state regulation, including any prudence review requirements under such state law;

(4) Modifying the Federal Power Act or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or,

(5) Interfering with or impairing any program for competitive bidding for power supply in a state in which such program is established.

**STEP 4  
For SO<sub>2</sub> Opt-in  
units only.**

In column "f" enter the unit ID# for every SO<sub>2</sub> Opt-in unit identified in column "a" of STEP 2.

For column "g" describe the combustion unit and attach information and diagrams on the combustion unit's configuration.

In column "h" enter the hours.

f	g	h (not required for renewal application)
Unit ID#	Description of the combustion unit	Number of hours unit operated in the six months preceding initial application

Treasure Coast Energy Center
Plant Name (from STEP 1)

**STEP 5**

For SO<sub>2</sub> Opt-in units only. (Not required for SO<sub>2</sub> Opt-in renewal applications.)

In column "i" enter the unit ID# for every SO<sub>2</sub> Opt-in unit identified in column "a" (and in column "f").

For columns "j" through "n," enter the information required under 40 CFR 74.20-74.25 and attach all supporting documentation required by 40 CFR 74.20-74.25.

i	j	k	l	m	n
Unit ID#	Baseline or Alternative Baseline under 40 CFR 74.20 (mmBtu)	Actual SO <sub>2</sub> Emissions Rate under 40 CFR 74.22 (lbs/mmBtu)	Allowable 1985 SO <sub>2</sub> Emissions Rate under 40 CFR 74.23 (lbs/mmBtu)	Current Allowable SO <sub>2</sub> Emissions Rate under 40 CFR 74.24 (lbs/mmBtu)	Current Promulgated SO <sub>2</sub> Emissions Rate under 40 CFR 74.25 (lbs/mmBtu)

**STEP 6**

For SO<sub>2</sub> Opt-in units only.

Attach additional requirements, certify and sign.

- A. If the combustion source seeks to qualify for a transfer of allowances from the replacement of thermal energy, a thermal energy plan as provided in 40 CFR 74.47 for combustion sources must be attached.
- B. A statement whether the combustion unit was previously an affected unit under 40 CFR 74.
- C. A statement that the combustion unit is not an affected unit under 40 CFR 72.6 and does not have an exemption under 40 CFR 72.7, 72.8, or 72.14.
- D. Attach a complete compliance plan for SO<sub>2</sub> under 40 CFR 72.40.
- E. The designated representative of the combustion unit shall submit a monitoring plan in accordance with 40 CFR 74.61. For renewal application, submit an updated monitoring plan if applicable under 40 CFR 75.53(b).
- F. The following statement must be signed by the designated representative or alternate designated representative of the combustion source: "I certify that the data submitted under 40 CFR Part 74, Subpart C, reflects actual operations of the combustion source and has not been adjusted in any way."

Signature	Date
-----------	------

**STEP 7**

Read the certification statement; provide name, title, owner company name, phone, and e-mail address; sign, and date.

<b>Certification (for designated representative or alternate designated representative only)</b>	
I am authorized to make this submission on behalf of the owners and operators of the Acid Rain source or Acid Rain units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.	
Roger Fontes	General Manager and CEO
Name	Title
Florida Municipal Power Authority	
Owner	
Company Name	
(407) 355-7767	roger.fontes@fmpa.com
Phone	E-mail address
Signature <i>RF</i>	Date

# Acid Rain Part Application

For more information, see instructions and refer to 40 CFR 72.30 and 72.31 and Chapter 62-214, F.A.C.

This submission is:  New  Revised

**STEP 1**  
Identify the source by plant name, State, and ORIS code

Plant Name	Treasure Coast Energy Center	State	Florida	ORIS Code	56400
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**STEP 2**  
Enter the unit ID# for every Acid Rain unit at the Acid Rain source in column "a." For new units, enter the requested information in columns "c" and "d."

a Unit ID#	b Unit will hold allowances in accordance with 40 CFR 72.9(c)(1)	c New Units  Commence Operation Date	d New Units  Monitor Certification Deadline
Unit 1	Yes	June 2008	September 2008
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		

Trooparc Coast Energy Center
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Plant Name (from Step 1)
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**STEP 3**  
Read the standard requirements

Acid Rain Part Requirements

- (1) The designated representative of each Acid Rain source and each Acid Rain unit at the source shall:
  - (i) Submit a complete Acid Rain part application (including a compliance plan) under 40 CFR part 72 and Rules 62-214.320 and 330, F.A.C., in accordance with the deadlines specified in Rule 62-214.320, F.A.C.; and
  - (ii) Submit in a timely manner any supplemental information that the Department determines is necessary in order to review an Acid Rain part application and issue or deny an Acid Rain part.
- (2) The owners and operators of each Acid Rain source and each Acid Rain unit at the source shall:
  - (i) Operate the unit in compliance with a complete Acid Rain part application or a superseding Acid Rain part issued by the Department; and
  - (ii) Have an Acid Rain Part.

Monitoring Requirements

- (1) The owners and operators and, to the extent applicable, designated representative of each Acid Rain source and each Acid Rain unit at the source shall comply with the monitoring requirements as provided in 40 CFR part 75, and Rule 62-214.420, F.A.C.
- (2) The emissions measurements recorded and reported in accordance with 40 CFR part 75 shall be used to determine compliance by the unit with the Acid Rain emissions limitations and emissions reduction requirements for sulfur dioxide and nitrogen oxides under the Acid Rain Program.
- (3) The requirements of 40 CFR part 75 shall not affect the responsibility of the owners and operators to monitor emissions of other pollutants or other emissions characteristics at the unit under other applicable requirements of the Act and other provisions of the operating permit for the source.

Sulfur Dioxide Requirements

- (1) The owners and operators of each source and each Acid Rain unit at the source shall:
  - (i) Hold allowances, as of the allowance transfer deadline, in the unit's compliance subaccount (after deductions under 40 CFR 73.34(c)), or in the compliance subaccount of another Acid Rain unit at the same source to the extent provided in 40 CFR 73.35(b)(3), not less than the total annual emissions of sulfur dioxide for the previous calendar year from the unit; and
  - (ii) Comply with the applicable Acid Rain emissions limitations for sulfur dioxide.
- (2) Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide shall constitute a separate violation of the Act.
- (3) An Acid Rain unit shall be subject to the requirements under paragraph (1) of the sulfur dioxide requirements as follows:
  - (i) Starting January 1, 2000, an Acid Rain unit under 40 CFR 72.8(a)(2); or
  - (ii) Starting on the later of January 1, 2000 or the deadline for monitor certification under 40 CFR part 75, an Acid Rain unit under 40 CFR 72.8(a)(3).
- (4) Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program.
- (5) An allowance shall not be deducted in order to comply with the requirements under paragraph (1) of the sulfur dioxide requirements prior to the calendar year for which the allowance was allocated.
- (6) An allowance allocated by the Administrator under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the Acid Rain part application, the Acid Rain part, or an exemption under 40 CFR 72.7 or 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.
- (7) An allowance allocated by the Administrator under the Acid Rain Program does not constitute a property right.

Nitrogen Oxides Requirements The owners and operators of the source and each Acid Rain unit at the source shall comply with the applicable Acid Rain emissions limitation for nitrogen oxides.

Excess Emissions Requirements

- (1) The designated representative of an Acid Rain unit that has excess emissions in any calendar year shall submit a proposed offset plan, as required under 40 CFR part 77.
- (2) The owners and operators of an Acid Rain unit that has excess emissions in any calendar year shall:
  - (i) Pay without demand the penalty required, and pay upon demand the interest on that penalty, as required by 40 CFR part 77; and
  - (ii) Comply with the terms of an approved offset plan, as required by 40 CFR part 77.

Recordkeeping and Reporting Requirements

- (1) Unless otherwise provided, the owners and operators of the source and each Acid Rain unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 5 years, in writing by the EPA or the Department:
  - (i) The certificate of representation for the source and each Acid Rain unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with Rule 62-214.350, F.A.C.; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation changing the designated representative;
  - (ii) All emissions monitoring information, in accordance with 40 CFR part 75, provided that to the extent that 40 CFR part 75 provides for a 3-year period for recordkeeping, the 3-year period shall apply;
  - (iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program; and

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Cont'd.

Recordkeeping and Reporting Requirements (cont)

(iv) Copies of all documents used to complete an Acid Rain part application and any other submission under the Acid Rain Program or to demonstrate compliance with the requirements of the Acid Rain Program.

(2) The designated representative of an Acid Rain source and each Acid Rain unit at the source shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR part 72 subpart I and 40 CFR part 75.

Liability

(1) Any person who knowingly violates any requirement or prohibition of the Acid Rain Program, a complete Acid Rain part application, an Acid Rain part, or an exemption under 40 CFR 72.7 or 72.8, including any requirement for the payment of any penalty owed to the United States, shall be subject to enforcement pursuant to section 113(c) of the Act.

(2) Any person who knowingly makes a false, material statement in any record, submission, or report under the Acid Rain Program shall be subject to criminal enforcement pursuant to section 113(c) of the Act and 18 U.S.C. 1001.

(3) No permit revision shall excuse any violation of the requirements of the Acid Rain Program that occurs prior to the date that the revision takes effect.

(4) Each Acid Rain source and each Acid Rain unit shall meet the requirements of the Acid Rain Program.

(5) Any provision of the Acid Rain Program that applies to an Acid Rain source (including a provision applicable to the designated representative of an Acid Rain source) shall also apply to the owners and operators of such source and of the Acid Rain units at the source.

(6) Any provision of the Acid Rain Program that applies to an Acid Rain unit (including a provision applicable to the designated representative of an Acid Rain unit) shall also apply to the owners and operators of such unit. Except as provided under 40 CFR 72.44 (Phase II repowering extension plans) and 40 CFR 76.11 (NO<sub>x</sub> averaging plans), and except with regard to the requirements applicable to units with a common stack under 40 CFR part 75 (including 40 CFR 75.16, 75.17, and 75.18), the owners and operators and the designated representative of one Acid Rain unit shall not be liable for any violation by any other Acid Rain unit of which they are not owners or operators or the designated representative and that is located at a source of which they are not owners or operators or the designated representative.

(7) Each violation of a provision of 40 CFR parts 72, 73, 75, 76, 77, and 78 by an Acid Rain source or Acid Rain unit, or by an owner or operator or designated representative of such source or unit, shall be a separate violation of the Act.

Effect on Other Authorities

No provision of the Acid Rain Program, an Acid Rain part application, an Acid Rain part, or an exemption under 40 CFR 72.7 or 72.8 shall be construed as:

(1) Except as expressly provided in title IV of the Act, exempting or excluding the owners and operators and, to the extent applicable, the designated representative of an Acid Rain source or Acid Rain unit from compliance with any other provision of the Act, including the provisions of title I of the Act relating to applicable National Ambient Air Quality Standards or State Implementation Plans;

(2) Limiting the number of allowances a unit can hold; provided, that the number of allowances held by the unit shall not affect the source's obligation to comply with any other provisions of the Act;

(3) Requiring a change of any kind in any State law regulating electric utility rates and charges, affecting any State law regarding such State regulation, or limiting such State regulation, including any prudence review requirements under such State law;

(4) Modifying the Federal Power Act or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or,


(5) Interfering with or impairing any program for competitive bidding for power supply in a State in which such program is established.

STEP 4

**Certification**

Read the certification statement, sign, and date

I am authorized to make this submission on behalf of the owners and operators of the Acid Rain source or Acid Rain units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Name	Roger A. Fontes	
Signature		Date 3/31/06