Gulfstream Natural Gas System, L.L.C.
Compressor Station 420

Facility ID No. 0810215
Manatee County

Initial Title V Air Operation Permit

Permit No. 0810215-004-AV
(Initial Title V Air Operation Permit)

Permitting and Compliance Authority:

State of Florida
Department of Environmental Protection
Air Resource Management, Southwest District

13051 North Telecom Parkway
Temple Terrace, Florida 33637-0926

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FINAL PERMIT

PERMITTEE:
Gulfstream Natural Gas System, L.L.C.
1905 Intermodal Circle, Suite 310,
Palmetto, FL 34221

Permit No. 0810215-004-AV
Compressor Station 420
Facility ID No. 0810215
Initial Title V Air Operation Permit

The purpose of this permit is for the initial Title V air operation permit for the above referenced facility. The existing Compressor Station 420 is located in Manatee County at 4610 Buckeye Road, in Palmetto, Florida. The UTM coordinates are Zone 17, 350.36 km East, and 3056.54 km North. Latitude is: 27° 37' 28.5" North and Longitude: 82° 31' 00" West.

The Title V air operation permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, 62-213. The above named permittee is hereby authorized to operate the facility in accordance with the terms and conditions of this permit.

Effective Date: February 21, 2012
Renewal Application Due Date: July 11, 2016
Expiration Date: February 21, 2017

_____

Robert C. Wong.
District Air Program Administrator
Southwest District

RCW/dz/pp

SECTION I. FACILITY INFORMATION.

Subsection A. Facility Description.

The facility is a natural gas pipeline compressor station (Compressor Station 420) on the Gulfstream natural gas pipeline transmission system, which extends from the Mississippi/Alabama coast southeastward across the Gulf of Mexico to market areas in Central Florida. Three combustion gas turbines (Compressor Combustion Gas Turbine Nos. 1, 2, and 3) are used to power axial gas compressors (gas turbine compressor sets) to maintain natural gas pipeline pressure. The combustion gas turbine units are fired with natural gas and are located inside a metal building, with the exhaust gas ducted to vertical rectangular exhaust stacks.

The facility also includes three natural gas fired backup emergency generators powered by reciprocating internal combustion engines. Also included in this permit are miscellaneous unregulated/insignificant emissions units and/or activities.

Subsection B. Summary of Emissions Units.

EU ID No.	Brief Description
Regulated Emissions Units	
001	Compressor Combustion Gas Turbine No. 1 (Solar Mars Model 100-15000S)
002	Compressor Combustion Gas Turbine No. 2 (Solar Mars Model 100-15000S)
003	Compressor Combustion Gas Turbine No. 3 (Solar Titan Model 130-20502S**)**
004	Existing Emergency Generator with Stationary Natural Gas Fired Spark Ignition (SI) Four-Stroke Lean Burn (4SLB) Reciprocating Internal Combustion Engine (RICE) < 500 HP
Unregulated Emissions Units and Activities	
005	Existing Emergency Generators (2), each with 1,175 HP Stationary Natural Gas Fired Spark Ignition (SI) Four-Stroke Lean Burn (4SLB) Reciprocating Internal Combustion Engines (RICE)

Subsection C. Applicable Regulations.

Based on the initial Title V air operation permit application received 09/26/11, this facility is not a major source of hazardous air pollutants (HAP). A summary of applicable regulations is shown in the following table.

Federal Regulation	**EU No(s).**
40 CFR 60 Subpart A (General Provisions to 40 CFR 60)	001 thru 003
Appendix NSPS 40 CFR 60 Subpart KKKK (Standards of Performance for Stationary Combustion Turbines)	001 thru 003
Appendix NESHAP 40 CFR 63 Subpart A (General Provisions to 40 CFR 63)	004
Appendix NESHAP 40 CFR 63 Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Ignition Internal Combustion Engines)	004
State Regulations	EU No(s).
Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296, and 62-297, F.A.C.	All

The following conditions apply facility-wide to all emission units and activities:

FW1. Appendices - The permittee shall comply with all documents identified in Section IV, Appendices, listed in the Table of Contents. Each document is an enforceable part of this permit unless otherwise indicated. [Rule 62-213.440, F.A.C.]

Emissions and Controls

FW2. Objectionable Odor Prohibited - No person shall cause, suffer, allow or permit the discharge of air pollutants, which cause or contribute to an objectionable odor. An "objectionable odor" means any odor present in the outdoor atmosphere which by itself or in combination with other odors, is or may be harmful or injurious to human health or welfare, which unreasonably interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance.
[Rule 62-296.320(2) and 62-210.200(Definitions), F.A.C.]

FW3. General Volatile Organic Compounds (VOC) Emissions or Organic Solvents (OS) Emissions - The permittee shall allow no person to store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds or organic solvents without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department.
[Rule 62-296.320(1), F.A.C.]

(Permitting Note: Nothing is deemed necessary and ordered at this time.)

FW4. General Visible Emissions - No person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity equal to or greater than 20% opacity. EPA Method 9 is the method of compliance pursuant to Chapter 62-297, F.A.C. This regulation does not impose a specific testing requirement.
[Rule 62-296.320(4)(b)1, F.A.C.]

FW5. Unconfined Particulate Matter - No person shall cause, let, permit, suffer or allow the emissions of unconfined particulate matter from any activity, including vehicular movement; transportation of materials; construction; alteration; demolition or wrecking; or industrially related activities such as loading, unloading, storing or handling; without taking reasonable precautions to prevent such emissions. Reasonable precautions to prevent emissions of unconfined particulate matter at this facility include:

a. Paving and maintenance of roads, parking areas and yards.

b. Application of asphalt, water, oil, chemicals or other dust suppressants to unpaved roads, parking areas or yards.

c. Removal of particulate matter from roads and other paved areas under the control of the owner or operator of the facility to prevent reentrainment, and from buildings or work areas to prevent particulate from becoming airborne.

d. Landscaping or planting of vegetation.

[Rule 62-296.320(4)(c), F.A.C.; proposed by applicant in initial Title V air operation permit application received September 26, 2011.]

Annual Reports and Fees

See Appendix RR, Facility-wide Reporting Requirements for additional details.

FW6. Annual Operating Report - The permittee shall submit an annual report that summarizes the actual operating rates and emissions from this facility. Annual operating reports shall be submitted to the Compliance Authority by April 1st of each year.
[Rule 62-210.370(3), F.A.C.]

FW7. Annual Emissions Fee Form and Fee - The annual Title V emissions fees are due (postmarked) by March 1st of each year. The completed form and calculated fee shall be submitted to: Major Air Pollution Source Annual Emissions Fee, P.O. Box 3070, Tallahassee, Florida 32315-3070. The forms are available for download by accessing the Title V Annual Emissions Fee On-line Information Center at the following Internet web site: http://www.dep.state.fl.us/air/emission/tvfee.htm.
[Rule 62-213.205, F.A.C.]

FW8. Annual Statement of Compliance - The permittee shall submit an annual statement of compliance to the compliance authority at the address shown on the cover of this permit within 60 days after the end of each calendar year during which the Title V permit was effective.
[Rules 62-213.440(3)(a)2. & 3. and (3)(b), F.A.C.]

FW9. Prevention of Accidental Releases (Section 112(r) of CAA) - If and when the facility becomes subject to 112(r), the permittee shall:

a. Submit its Risk Management Plan (RMP) to the Chemical Emergency Preparedness and Prevention Office (CEPPO) RMP Reporting Center. Any Risk Management Plans, original submittals, revisions or updates to submittals, should be sent to: RMP Reporting Center, Post Office Box 10162, Fairfax, VA 22038, Telephone: (703) 227-7650.

b. Submit to the permitting authority Title V certification forms or a compliance schedule in accordance with Rule 62-213.440(2), F.A.C.

[40 CFR 68]

The specific conditions in this section apply to the following emissions units:

EU ID No.	Brief Description
001	Compressor Combustion Gas Turbine No. 1 - This emissions unit is a Solar Turbines Model Mars® 100-15000S combustion gas turbine rated at 17,250 HP* used to power an axial gas compressor (gas turbine compressor set) to maintain natural gas pipeline pressure. The unit is fired with natural gas at a maximum heat input rating of 126.3 MMBtu/hour* *(* ratings for 0 ft MSL elevation, 100% load, 60% relative humidity, 0°F inlet air temperature)*. The turbine is equipped with a SoLoNox™ lean premix dry low-NOx combustion system to reduce emissions of nitrogen oxides. The compressor unit is located inside a metal building, with the exhaust gas ducted to a vertical rectangular exhaust stack.
002	Compressor Combustion Gas Turbine No. 2 - This emissions unit is a Solar Turbines Model Mars® 100-15000S combustion gas turbine rated at 17,250 HP* used to power an axial gas compressor (gas turbine compressor set) to maintain natural gas pipeline pressure. The unit is fired with natural gas at a maximum heat input rating of 126.3 MMBtu/hour* *(* ratings for 0 ft MSL elevation, 100% load, 60% relative humidity, 0°F inlet air temperature)*. The turbine is equipped with a SoLoNox™ lean premix dry low-NOx combustion system to reduce emissions of nitrogen oxides. The compressor unit is located inside a metal building, with the exhaust gas ducted to a vertical rectangular exhaust stack.
003	Compressor Combustion Gas Turbine No. 3 - This emissions unit is a Solar Titan Model 130-20502S rated at 21,770 HP* which is used to power an axial gas compressor (gas turbine compressor set) to maintain natural gas pipeline pressure. The unit is fired with natural gas at a maximum heat input rating of 157.4 MMBtu/hour* *(*at 0 ft MSL elevation, 100% load, 60% relative humidity, 0°F inlet air temperature)*. The turbine is equipped with a SoLoNox™ lean premix dry low-NOx combustion system to reduce emissions of nitrogen oxides. The compressor unit is located inside a metal building, with the exhaust gas ducted to a vertical rectangular exhaust stack.

NOTE: *Please reference the Permit No., Facility ID, and Emission Unit ID in all correspondence, test report submittals, applications, etc.*

Essential Potential to Emit (PTE) Parameters

A.1. Authorized Fuel and Maximum Fuel Sulfur Content – Compressor Combustion Gas Turbine Nos. 1, 2 and 3 shall be fired with natural gas only. In order to limit sulfur dioxide (SO_2) emissions, the turbines shall fire only pipeline quality natural gas containing no more than 10 grains of sulfur per 100 scf of gas*. [Rules 62-204.800(8)(b) and 62-210.200(PTE), F.A.C.; NSPS Subpart KKKK 40 CFR 60.4330(a)]

(NSPS SO_2 Limit Note - The above limitation is based upon a Federal Energy Regulatory Commission (FERC) Gas Tariff for Gulfstream Natural Gas Systems, L.L.C., which contains a natural gas sulfur content limit of 10 grains S/100 scf (corresponds to approximately 0.014 lb SO_2/MMBtu). This limit is more stringent than, and therefore satisfies, the requirements of the applicable sulfur limitations contained in NSPS Subpart KKKK 40 CFR 60.4330(a)(2) (i.e., SO_2 emissions not to exceed 0.06 lb/MMBtu). This limitation also qualifies this combustion gas turbine to use the fuel sulfur content monitoring exemption of 40 CFR 60.4365(a) (see Condition No. A.15.).)*

A.2. Maximum Fuel Firing Rate - The maximum heat input rate for the compressor combustion gas turbines shall not exceed the levels shown below.

a. Compressor Combustion Gas Turbine Nos. 1 and 2 (EU's 001 and 002) - The maximum heat input rate for each combustion turbine shall not exceed 126.3 MMBtu/hour*.

b. Compressor Combustion Gas Turbine No. 3 (EU 003) - The maximum heat input rate for this combustion turbine shall not exceed 157.4 MMBtu/hour*.

Compliance with this heat input limitation shall be determined on a monthly average basis. *(See Specific Condition No. A.14. for associated recordkeeping requirements.)*
[Rule 62-210.200(Definition of Potential to Emit), F.A.C.; as also previously established for Combustion Turbines 1 and 2 in Construction Permit 0810215-003-AC]

*(*Permitting Note - This is the maximum design heat input rate for 0 ft MSL elevation, 100% load, 60% relative humidity, 0°F inlet air temperature. Maximum turbine engine heat input rate and horsepower output vary significantly based on inlet air conditions (temperature and humidity.)*

A.3. Permitted Operating Hours - The hours of operation of this facility are not limited (i.e., all emission units permitted for 8760 hours per year).
[Rules 62-4.070(3), and 62-210.200(PTE), F.A.C.; Construction Permit 0810215-003-AC]

Emission Limitations and Standards

(Permitting Note - The attached Table 1, Summary of Air Pollutant Standards, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.)

Unless otherwise specified, the averaging time(s) for Specific Condition Nos. A.4 and A.5. are based on the specified averaging time of the applicable test method.

A.4. Nitrogen Oxides (NOx) Emission Limitations - The permittee shall tune, operate and maintain each combustion gas turbine's lean premix dry low-NOx combustion system *(SoLoNox™)* to reduce emissions of nitrogen oxides below the permitted limits. NOx emissions from each of the compressor combustion gas turbines shall not exceed the following:

a. 25 ppmv (corrected to 15% O_2) [NSPS Subpart KKKK 40 CFR 60.4325 and Table 1]; and,

b. Compressor Combustion Gas Turbine Nos. 1 and 2 (EU's 001 and 002) - 8.34 pounds per hour for each unit* (averaging time in accordance with compliance test method - see Specific Condition A.9.)

c. Compressor Combustion Gas Turbine No. 3 (EU 003) - 10.40 pounds per hour* (averaging time in accordance with compliance test method - see Specific Condition A.9).

(Note - The pounds per hour limits are based upon the NSPS Subpart KKKK 25 ppmv (corrected to 15% O_2) limitation and maximum design exhaust flow rate for the combustion turbines. These pounds/hour limits correspond to a maximum NOx potential to emit (PTE) of 36.53 TPY for each of*

the existing Combustion Gas Turbines Nos. 1 and 2, and 45.53 TPY for new Combustion Gas Turbine No. 3., based on operation of each turbine for 8,760 hours/year.)

[Rule 62-204.800(8)(b), F.A.C.; NSPS Subpart KKKK 40 CFR 60.4325, and Table 1 to Subpart KKKK (Nitrogen Oxide Emissions Limits for New Stationary Combustion Gas Turbines); Construction Permit 0810215-003-AC]

A.5. Visible Emission (VE) Limitation - Emissions of PM and VOC from each of the compressor combustion gas turbines are controlled and minimized by good combustion operating practices. In order to provide reasonable assurance that these emission units are being operated using good combustion and air pollution control practices for minimizing emissions, visible emissions (VE) from each of the compressor combustion gas turbine exhaust stacks shall not exceed 10% opacity.
[Rules 62-4.070(3) and 62-204.800(8), F.A.C.; NSPS Subpart A 40 CFR 60.11(d); Construction Permit 0810215-003-AC]

Excess Emissions

Rule 62-210.700 (Excess Emissions), F.A.C. cannot vary any requirement of an NSPS, NESHAP or Acid Rain program provision.

A.6. Excess Emissions Allowed - Excess emissions resulting from startup, shutdown or malfunction shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.]

A.7. Excess Emissions Prohibited - Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]

Compliance Test Methods and Procedures

(Permitting Note - The attached Table 2, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.)

A.8. Annual NOx and VE Compliance Tests - During each federal fiscal year (October 1st to September 30th), each compressor combustion gas turbine shall be tested to demonstrate compliance with the emissions standards for nitrogen oxides (NOx) and visible emissions (VE). A NOx compliance test shall be conducted no more than 14 calendar months following the previous NOx test (unless modified by the following). If the NOx emission result from compliance testing is less than or equal to 75% of the NOx emission limit (in ppm @ 15% O_2), then the frequency of subsequent NOx compliance testing for that unit may be reduced to once every 2 years (no more than 26 months following the previous compliance test). If the results of any subsequent compliance test exceed 75% of the NOx emission limit (in ppm @ 15% O_2), then annual testing must be resumed for that unit.
[Rules 62-204.800(8)(b), and 62-297.310(7)(a)4., F.A.C.; NSPS Subpart KKKK 40 CFR 4340(a) and 60.4400(a); Construction Permit 0810215-003-AC]

A.9. Compliance Test Methods. Required compliance tests shall be performed in accordance with the following reference methods:

Method	Description of Method and Comments
1-4 (or 19*)	Traverse Points, Velocity and Flow Rate*, Gas Analysis, and Moisture Content (*Method 19 may be used to determine stack flow rate in lieu of Methods 1-4** *(see Method 19 below).)* (** In accordance with Alternate Sampling Procedure (ASP) Number 11-D-AP (with Order dated April 15, 2011) – see Appendix ASP.)
7E or 20	Determination of Nitrogen Oxide Emissions from Stationary Sources (7E) Determination of Nitrogen Oxides, Sulfur Dioxide and Diluent Emissions from Stationary Gas Turbines (20) - NOx compliance testing shall be conducted in accordance with the procedures and requirements of 40 CFR 60.4400. Each test shall consist of three separate test runs with a minimum time per run of 20 minutes. Compliance shall be based on the three-run arithmetic average. NOx test results shall be expressed as ppm corrected to 15% O_2 and pounds/hour.
9	Visual Determination of the Opacity of Emissions from Stationary Sources - The visible emissions (VE) tests shall be a minimum of thirty (30) minutes in duration and shall include the period during which the highest opacity emissions can reasonably be expected to occur.
19	Determination of Sulfur Dioxide Removal Efficiency and Particulate Matter, Sulfur Dioxide, and Nitrogen Oxides Emission Rates (Optional F-factor method may be used to determine flow rate and gas analysis to calculate mass emissions in lieu of Methods 1-4.)

The above methods are described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department.
[Rule 62-297.401, F.A.C., Construction Permit No. 0810215-003-AC, Alternate Sampling Procedure (ASP) Number 11-D-AP (with Order dated April 15, 2011)]

A.10. Common Testing Requirements - Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]

A.11. Operating Rate During NSPS Subpart KKKK Compliance Testing* - In accordance with 40 CFR 60.4400(b), compliance tests for the purpose of showing compliance with the NOx limitation of NSPS Subpart KKKK 40 CFR 60.4325 and Table 1 *(see Specific Condition No. A.4.a.)* must be done at any load condition within plus or minus 25 percent of 100 percent of peak load. Testing may be performed at the highest achievable load point, if at least 75 percent of peak load cannot be achieved in practice.
[Rules 62-297.310(2), and 62-204.800(8)(b) F.A.C.; 40 CFR 60.4400(b); Construction Permit 0810215-003-AC]

(Testing Note - Gas turbines used as compressor engines typically operate close to or at permitted capacity. Therefore testing at lower loads is not required, nor is it considered as normal operation.)

(**Important Compliance Testing Operating Rate Note** - See also Appendix TR, Item TR2., for additional, more stringent, requirements for operating rate during stack testing.)*

A.12. Stack Sampling Facilities - The minimum requirements for stack sampling facilities shall be in accordance with Rule 62-297.310(6), F.A.C. [Rule 62-297.310(6), F.A.C.]

Reporting and Recordkeeping Requirements

A.13. Test Reports - The permittee shall prepare and submit reports for all required tests in accordance with the requirements specified in Condition No TR8. in Appendix TR (Facility-Wide Testing Requirements) of this permit. The actual heat input rate (MMBtu/hour), percent of maximum heat input capacity, and horsepower output (bhp) during each run of the test shall be included in each test report along with the average ambient (inlet) temperature (°F) during the test and the manufacturer's maximum heat input capacity for that temperature (include any manufacturer's curves used to establish this). Heat input rate calculations shall be based on the actual heat content of the fuel on the day of the test. Failure to submit the above operating information or operation at conditions that do not represent normal operations may invalidate the test and fail to provide reasonable assurance of compliance.
[Rules 62-4.070(3), 62-204.800(8)(b), and 62-297.310(8)(b), F.A.C.; NSPS Subpart KKKK 40 CFR 60.4375; Construction Permit 0810215-003-AC]

A.14. Operational Data Records - Using the automated gas turbine control systems, the permittee shall monitor and record monthly heat input (MMBtu) (based on the natural gas usage and the average natural gas heating value), power output (bhp), and hours of operation for each compressor combustion gas turbine. Within the 10 days of a request by the Department, the permittee shall be able to summarize the following information on a monthly average basis: average heat input (MMBtu per hour); average power output (bhp); and hours of gas turbine operation. This information shall also be used for submittal of the required Annual Operating Report.
[Rule 62-4.070(3), F.A.C.; Construction Permit 0810215-003-AC]

A.15. Documentation of Maximum Fuel Sulfur Content - In accordance with the provisions of 40 CFR 60.4365(a), monitoring of total sulfur content of the fuel used in the combustion turbines in accordance with the requirements of 40 CFR 60.4360 is not required if the fuel used is demonstrated not to exceed potential sulfur emissions of 0.060 lbs SO2/MMBtu heat input. In order to provide this information, the permittee shall maintain on site a current valid purchase contract or tariff sheet that specifies that the maximum total sulfur content for the natural gas to be used in this gas turbine is 10 grains of sulfur or less per 100 scf *.
[Rule 62-204.800(8)(b), F.A.C.; NSPS Subpart KKKK 40 CFR 60.4356(a); Construction Permit 0810215-003-AC]

(Sulfur Content Documentation Note - The Title V operation permit application for this facility included a copy of a FERC Gas Tariff sheet for Gulfstream Natural Gas System, L.L.C. which specified that the natural gas shall not contain more than 10 grains of total sulfur per 100 scf. This is more stringent than the 40 CFR 60.4365(a) requirement to provide a tariff sheet that specifies a maximum of 20 grains per 100 scf.)*

A.16. Excess Emissions from Malfunctions - In case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department in accordance with Rule 62-4.130, F.A.C. (Plant Operations – Problems). A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department.
[Rule 62-210.700(6), F.A.C.]

A.17. Other Reporting Requirements - See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements, which include Condition Nos. RR4. (Semi-Annual Monitoring Reports), RR5. (Semi-Annual Monitoring Reports), and RR7. (Annual Statement of Compliance), all of which are applicable to this facility. [Rule 62-4.070(3), F.A.C.]

Other Requirements

A.18. Federal New Source Performance Standard (NSPS) Requirements - In addition to the specific conditions listed above, Compressor Combustion Gas Turbine Nos. 1, 2, and 3 (EU Nos. 001, 002, and 003) are subject to and shall comply with the applicable requirements (*see applicable provisions references below)* of Federal New Source Performance Standards (NSPS) 40 CFR 60 KKKK (Standards of Performance for Stationary Combustion Turbines), and 40 CFR 60 Subpart A (General Provisions for 40 CFR 60), as included in the attached Appendix NSPS 40 CFR 60 Subpart KKKK and Appendix NSPS 40 CFR 60 Subpart A, which are both made a part of this.

(Note – Some of the requirements of Subparts A and KKKK are also included in the specific conditions of this subsection.)

40 CFR 60 Subpart KKKK Applicable Provision References *

*(Note - **Entire section** applies unless otherwise noted with specific applicable subsection references shown below the section title.)*

Section Title

Introduction

60.4300 What is the purpose of this subpart? *(All)*

Applicability

60.4305 Does this subpart apply to my stationary combustion turbine? *(All)*

Emission Limits

60.4315 What pollutants are regulated by this subpart? *(All)*

60.4320 What emission limits must I meet for nitrogen oxides (NOx)?
(a)

60.4330 What emission limits must I meet for sulfur dioxide (SO2)?
(a)(2)

General Compliance Requirements

60.4333 What are my general requirements for complying with this subpart?
(a)

Monitoring

60.4340 How do I demonstrate continuous compliance for NO_X if I do not use water or steam injection?
(a)

60.4365 How can I be exempted from monitoring the total sulfur content of the fuel?
(a)

Reporting

60.4375 What reports must I submit?
(b)

Performance Tests

60.4400 How do I conduct the initial and subsequent performance tests, regarding NOX? *(All)*

Definitions

60.4420 What Definitions apply to this subpart? *(All)*

Table 1. to Subpart KKKK of Part 60 - Nitrogen Oxides Emission Limits

NOx emission standards for "New turbine firing natural gas" with "heat input at peak load of > 50 MMBtu/hr and ≤ 850 MMBtu/hr"

(Permitting Note - These applicability references are based upon current operations as reflected in the operation permit application dated 09/26/11. Any change in operations may change the applicable provisions.)*

[Rule 62-204.800(8), F.A.C.; NSPS 40 CFR 60 Subparts A and KKKK; Construction Permit 0810215-003-AC]

Equipment Replacement Provisions

A.19. Component Replacements - A gas turbine system generally consists of the following general components: gas generator, accessory drive system, air inlet and filtration system, fuel delivery system, cooling system, lubrication system, power turbine, power shaft, control system, starting system, and exhaust system with stack. These light-industrial aero-derivative gas turbines are designed with modular components to facilitate quick repairs. Common "wear items" include stator blades, turbine nozzles, turbine buckets, fuel nozzles, combustion chambers, seals, and shaft packings. The modular design extends to complete replacement of the gas generator and power turbine. Replacements are authorized provided the following requirements are met.

a. Components shall be replaced with functionally equivalent "like-kind" equipment. Replacement components may consist of upgraded equipment, but shall not increase the maximum heat input rate to or emissions from the gas turbine. Replacement components shall be designed to achieve and shall achieve the emissions standards specified in this permit or better.

b. The permittee shall keep the Compliance Authority (FDEP Southwest District Air Program) informed of any scheduled gas generator replacements. Within ten days of first fire on a replacement gas generator, the permittee shall provide the following: date of first fire; certification from the vendor that the replacement gas generator is a functionally equivalent "like-kind" component designed to achieve the emissions standards specified in this permit; specifications including vendor, model number, serial number, maximum heat input rate (MMBtu/hour), power output (bhp), and maximum emission rates; and a preliminary schedule for conducting performance testing. A copy of the vendor certification shall be kept on site with the air permit. Replacement gas generators are subject to the standards of this permit. Within 60 days of replacing a gas generator, the permittee shall conduct emissions stack tests to demonstrate

A.19. *(continued)*

c. compliance with the emission standards for NOx and visible emissions. NOx testing shall be conducted in accordance with the initial performance test requirements of 40 CFR 60.8 and NSPS Subpart KKKK 40 CFR 60.4400. The permittee shall comply with the requirements for notification, test methods, test procedures, and reporting specified in this permit.

d. To up-rate a gas turbine or increase the maximum heat input rate, the permittee shall apply for prior approval through the air construction permit process.

e. After investigation and for good cause (such as complaints, increased visible emissions or questionable maintenance of control equipment), the Department may require special compliance tests pursuant to Rule 62-297.310(7)(b), F.A.C.

[Rule 62-4.070(3), F.A.C.; Construction Permit 0810215-003-AC]

(Permitting Note* - *The above Component Replacements permit condition is identical to conditions included in the air permits for this and other natural gas pipeline compressor stations across the state.)

The specific conditions in this section apply to the following emissions unit (EU):

EU ID No.	Brief Description
004	Existing Stationary Emergency Generator with Natural Gas Fired Spark Ignition (SI) Four-Stroke Lean Burn (4SLB) Reciprocating Internal Combustion Engine (RICE) < 500 HP

Operation Requirements

B.1. Operating Hours - There is no specific limitation on operating hours for the engine on this emergency generator.
[Rules 62-4.160(2), and 62-210.200 (Definitions - Potential to Emit), F.A.C.]

Applicable Federal Requirements

B.2. Federal 40 CFR 63 NESHAP Subpart ZZZZ Requirements - This engine is subject to the applicable requirements of NESHAP 40 CFR 63 Subpart ZZZZ (National Emissions Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines), which is attached to this permit as **Appendix NESHAP 40 CFR 63 Subpart ZZZZ**, as it applies to existing 4SLB SI RICE at area sources of hazardous air pollutants (HAP). The applicable requirements for each engine category and HP rating range are shown in the **Summary of NESHAP 40 CFR 63 Subpart ZZZZ Applicable Requirements for Existing Stationary RICE at Area Sources of HAP**, attached to this permit.
[Rule 62-4.070(3), F.A.C.; NESHAP 40 CFR 63 Subpart ZZZZ]

*(**Important Compliance Note** – The final compliance date for the applicable Subpart ZZZZ requirements for the existing compression ignition (CI) RICE engines at this area source of HAP is 10/19/2013 (40 CFR 63.6595(a)(1).)*

B.3. Federal NESHAP 40 CFR 63 Subpart A General Provisions Requirements - This engine is subject to the applicable requirements of NESHAP 40 CFR 63 Subpart A (General Provisions for 40 CFR 63), as adopted and incorporated by reference in Rules 62-204.800(11)(d), F.A.C., which is attached to this permit as **Appendix NESHAP 40 CFR 63 Subpart A General Provisions**. The applicable requirements of Subpart A are shown in Table 8 to 40 CFR 63 Subpart ZZZZ *(see Appendix NESHAP 40 CFR 63 Subpart ZZZZ)*.
[Rule 62-208.800(11)(d), F.A.C.; NESHAP 40 CFR 63 Subpart ZZZZ]

SECTION IV. APPENDICES.

The Following Appendices Are Enforceable Parts of This Permit:

Appendix A, Glossary*

Appendix ASP, ASP Number 11-D-AP (With Order Dated April 15, 2011)

Appendix I, List of Insignificant Emissions Units and/or Activities*

Appendix NESHAP 40 CFR 63, Subpart A (General Provisions for 40 CFR 63)

Appendix NESHAP 40 CFR 63, Subpart ZZZZ (National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

Appendix NSPS 40 CFR 60, Subpart A (General Provisions for 40 CFR 60)

Appendix NSPS 40 CFR 60 Subpart KKKK (Standards of Performance for Stationary Combustion Turbines)

Appendix RR, Facility-wide Reporting Requirements*

Appendix TR, Facility-wide Testing Requirements*

Appendix TV, Title V General Conditions*

Appendix U, List of Unregulated Emissions Units and/or Activities*

Summary of NESHAP 40 CFR 63 Subpart ZZZZ Applicable Requirements for Existing Stationary RICE at Area Sources of HAP

* Included in one combined electronic document entitled: 0810215.004.av.Gulfstream.combined appendices

REFERENCED ATTACHMENTS.

The Following Attachments Are Included for Applicant Convenience:

Figure 1, Summary Report-Gaseous and Opacity Excess Emission and Monitoring System Performance (40 CFR 60, July, 1996).

Statement of Basis

Table H, Permit History.

Table 1, Summary of Air Pollutant Standards and Terms.

Table 2, Compliance Requirements.