

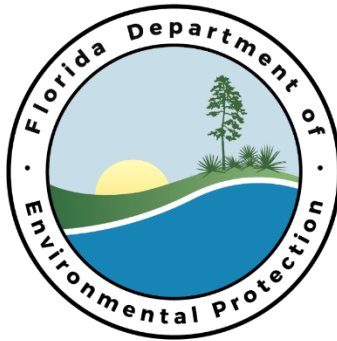
Florida Gas Transmission Company Compressor Station No. 16

Facility ID No. 0070012
Bradford County

Title V Air Operation Permit Renewal

Permit No. 0070012-019-AV

(Renewal of Title V Air Operation Permit No. 0070012-015-AV)



Permitting Authority:

State of Florida

Department of Environmental Protection
Northeast District Office

Waste and Air Resource Management

8800 Baymeadows Way West, Suite 100, Jacksonville, Florida 32256

Telephone: (904) 256-1700

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Compliance Authority:

State of Florida

Department of Environmental Protection
Northeast District Office

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Title V Air Operation Permit Renewal

Permit No. 0070012-019-AV

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Jacksonville, Florida 32256

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Maitland, Florida 32751-7047

Permit No. 0070012-019-AV
Compressor Station No. 16
Facility ID No. 0070012
Title V Air Operation Permit Renewal

The purpose of this permit is to renew the Title V air operation permit for the above referenced facility. The existing Florida Gas Transmission Company, Compressor Station No. 16 is located in Bradford County at 14369 SW State Road 231, Brooker, Florida. UTM Coordinates are: Zone 17, 371.98 km East and 3310.57 km North. Latitude is: 29.921111 North; and, Longitude is: -82.326111 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, and 62-213. The above named permittee is hereby authorized to operate the facility in accordance with the terms and conditions of this permit.

0070012-019-AV Effective Date: April 10, 2018
Renewal Application Due Date: August 28, 2022 (-225 days)
Expiration Date: April 10, 2023

Executed in Jacksonville, Florida.
STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

A handwritten signature in black ink, appearing to read "Michelle Neeley".

Michelle Neeley
Program Manager
Environmental Permitting

MN/pr

SECTION I. FACILITY INFORMATION.

Subsection A. Facility Description.

Florida Gas Transmission Company (FGT) is a natural gas compression station that includes six natural gas (NG) fired Spark Ignition (SI) Reciprocating Internal Combustion Engines (RICE) and one NG fired combustion turbine.

Five RICE, No. 1601, 1602, 1603, 1604, and 1605, are all classified as EU 001. The five non-emergency spark ignition (SI) four-stroke lean-burn (4SLB) NG fired Worthington manufactured engines, model SEHG-8, are rated at 2,000 bhp (each).

The other RICE is No. 1606 and identified as EU 002. This is a non-emergency SI two-stroke lean-burn (2SLB) NG fired Cooper-Bessemer manufactured engine, model 8W-330-C2, rated at 4,000 bhp.

The combustion turbine No. 1607 is identified as EU 003. It was manufactured by Cooper-Rolls 501-KC7 DLE and is rated at 7,200 bhp.

An unregulated emergency SI 4SLB NG fired Waukesha model H24GL engine is rated at 585 hp.

Subsection B. Summary of Emissions Units.

EU No.	Brief Description
<i>Regulated Emissions Units</i>	
001	Internal Combustion Engines No. 1601, 1602, 1603, 1604, and 1605. Five non-emergency SI 4SLB 2,000 HP NG fired engines.
002	Internal Combustion Engine No. 1606. One non-emergency SI 2SLB 4,000 HP NG fired engine.
003	NG fired 7,200 bhp combustion turbine No. 1607
<i>Unregulated Emissions Units and Activities (see Appendix U, List of Unregulated Emissions Units and/or Activities)</i>	
004	One emergency SI 4SLB 585 HP NG fired engine.

Also included in this permit are miscellaneous insignificant emissions units and/or activities (see Appendix I, List of Insignificant Emissions Units and/or Activities).

Please reference the Permit No., Facility ID No., and appropriate Emissions Unit(s) ID No(s). on all correspondence, test report submittals, applications, etc.

Subsection C. Applicable Regulations.

Based on the Title V air operation permit renewal application received February 1, 2018, this facility is a major source of hazardous air pollutants (HAP). The existing facility is a prevention of significant deterioration (PSD) major source of air pollutants in accordance with Rule 62-212.400, F.A.C. A summary of applicable regulations is shown in the following table.

Regulation	EU No(s).
<i>Federal Rule Citations</i>	
40 CFR 60, Subpart A, NSPS General Provisions	003
40 CFR 60, Subpart GG, Standards of Performance for Stationary Gas Turbines	003
40 CFR 63, Subpart ZZZZ, NESHAP for Stationary Reciprocating Internal Combustion Engines	001, 002
PSD BACT	002
<i>State Rule Citations</i>	

SECTION I. FACILITY INFORMATION.

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State Rule Citations (Rule 62-210.200, F.A.C., PTE and Major Modification (EU 003))	001, 002, 003
State Rule Citations (Rule 62-212.400, F.A.C., PSD)	002

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SECTION II. FACILITY-WIDE CONDITIONS.

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. Not federally Enforceable. 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. This regulation does not impose a specific testing requirement. [Rule 62-296.320(4)(b), 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. Chemical (dust suppressants) or water application to:
 - o Unpaved roads.
 - o Unpaved yard areas.
- c. Landscaping or planting of vegetation.
- d. Confining abrasive blasting where possible.
- e. Other techniques, as necessary.

[Rule 62-296.320(4)(c), F.A.C.; and, proposed by applicant in Title V air operation permit renewal application received February 1, 2018.]

Reports and Fees

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

FW6. Electronic Annual Operating Report and Title V Annual Emissions Fees. The information required by the Annual Operating Report for Air Pollutant Emitting Facility [Including Title V Source Emissions Fee Calculation] (DEP Form No. 62-210.900(5)) shall be submitted by April 1 of each year, for the previous calendar year, to the Department of Environmental Protection’s (DEP) Division of Air Resource Management. Each Title V source shall submit the annual operating report using the DEP’s Electronic Annual Operating Report (EAOR) software, unless the Title V source claims a technical or financial hardship by submitting DEP Form No. 62-210.900(5) to the DEP Division of Air Resource Management instead of using the reporting software. Emissions shall be computed in accordance with the provisions of subsection 62-210.370(2), F.A.C. Each Title V source must pay between January 15 and April 1 of each year an annual emissions fee in an amount determined as set forth in subsection 62-213.205(1), F.A.C. The annual fee shall

SECTION II. FACILITY-WIDE CONDITIONS.

only apply to those regulated pollutants, except carbon monoxide and greenhouse gases, for which an allowable numeric emission-limiting standard is specified in the source's most recent construction permit or operation permit. Upon completing the required EAOR entries, the EAOR Title V Fee Invoice can be printed by the source showing which of the reported emissions are subject to the fee and the total Title V Annual Emissions Fee that is due. The submission of the annual Title V emissions fee payment is also due (postmarked) by April 1st of each year. A copy of the system-generated EAOR Title V Annual Emissions Fee Invoice and the indicated total fee shall be submitted to: **Major Air Pollution Source Annual Emissions Fee, Post Office Box 3070, Tallahassee, Florida 32315-3070**. Additional information is available 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>. [Rules 62-210.370(3), 62-210.900 & 62-213.205, F.A.C.; and, §403.0872(11), Florida Statutes (2013)]

{Permitting Note: Resources to help you complete your AOR are available on the electronic AOR (EAOR) website at: <http://www.dep.state.fl.us/air/emission/eaor>. If you have questions or need assistance after reviewing the information posted on the EAOR website, please contact the Department by phone at (850) 717-9000 or email at eaor@dep.state.fl.us.}

{Permitting Note: The Title V Annual Emissions Fee form (DEP Form No. 62-213.900(1)) has been repealed. A separate Annual Emissions Fee form is no longer required to be submitted by March 1st each year.}

FW7. 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 and to the US. EPA at the address shown below within 60 days after the end of each calendar year during which the Title V air operation permit was effective. (See also Appendix RR, Conditions RR1 and RR7.) [Rules 62-213.440(3)(a)2. & 3. and (b), F.A.C.]

U.S. Environmental Protection Agency, Region 4
Atlanta Federal Center
61 Forsyth Street, SW
Atlanta, Georgia 30303
Attn: Air Enforcement Branch

FW8. 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 electronically through EPA's Central Data Exchange system at the following address: <https://cdx.epa.gov>. Information on electronically submitting risk management plans using the Central Data Exchange system is available at: <http://www2.epa.gov/rmp>. The RMP Reporting Center can be contacted at: 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]

FW9. Semi-Annual Monitoring Reports. The permittee shall monitor compliance with the terms and conditions of this permit and shall submit reports of any deviations from the requirements of these conditions at least every six (6) months. All instances of deviations from permit requirements must be clearly identified in such reports, including reference to the specific requirement and the duration of such deviation. All reports shall be accompanied by a certification by a responsible official, pursuant to subsection 62-213.420(4), F.A.C. (See also Conditions RR2. – RR4. of Appendix RR, Facility-wide Reporting Requirements, for additional reporting requirements related to deviations.) [Rule 62-213.440(1)(b)3.a., F.A.C.]

SECTION II. FACILITY-WIDE CONDITIONS.

{Permitting Note: EPA has clarified that, pursuant to 40 CFR 70.6(a)(3), the word “monitoring” is used in a broad sense and means monitoring (i.e., paying attention to) the compliance of the source with all emissions limitations, standards, and work practices specified in the permit.}

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SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection A. Emissions Unit 001

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

EU No.	Brief Description
001	Internal Combustion Engines No. 1601, 1602, 1603, 1604, and 1605. Five non-emergency SI 4SLB 2,000 HP (each) NG fired engines.

Engines 1601, 1602 and 1603 commenced initial operation in 1958. Engines 1604 and 1605 commenced initial operation in 1966 and 1968 respectively.

{Permitting note(s): EU 001 was issued an operating permit as a result of a consent order. A construction permit did not exist before the operating permit. The initial operating permit was 0070012-001-AO (formerly AO 04-191312). EU 001 is subject to 40 CFR 63, Subpart ZZZZ, NESHAPS for Stationary Reciprocating Internal Combustion Engines referenced in Rule 62-204.800, F.A.C. In accordance with 40 CFR 63.6590(b)(3)(ii), this emissions unit does not have to meet the requirements (including notification requirements) of 40 CFR 63, Subpart ZZZZ, NESHAPS for Stationary Reciprocating Internal Combustion Engines or the requirements of 40 CFR 63, Subpart A, General Provisions.}

Essential Potential to Emit (PTE) Parameters

- A.1. Permitted Capacity.** The maximum heat input shall not exceed 131,400 MMBTU per rolling 12-month period for each engine (1601, 1602, 1603, 1604, and 1605). [Rule 62-210.200(PTE), F.A.C.; Initial Air Operation Permit No. 0070012-001-AO]
- A.2. Emissions Unit Operating Rate Limitation After Testing.** See the related testing provisions in Appendix TR, Facility-wide Testing Requirements. [Rule 62-297.310(3), F.A.C.]
- A.3. Methods of Operation. Fuels.** The fuel that is allowed to be burned in this emission unit is natural gas. [Rule 62-210.200(PTE), F.A.C.; Air Operation Permit No. 0070012-001-AO.]
- A.4. Hours of Operation.** This emissions unit may operate continuously (8,760 hours/year). [Rule 62-210.200(PTE), F.A.C.]

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.}

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.5. Excess Emissions Allowed.** Excess emissions resulting from startup or shutdown of any emissions unit shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized. [Rule 62-210.700(2), F.A.C.]
- A.6. 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(2), F.A.C.]

{Permitting note: After May 22, 2018, subsections 62-210.700(1) and (2), F.A.C. shall not apply to emission limits in Chapter 62-296, F.A.C., that have been or that become incorporated into the State Implementation Plan for the State of Florida, identified in 40 C.F.R. §52.520; and unit-specific emission limits that have been or that become incorporated into the State Implementation Plan for the State of Florida, identified in 40 C.F.R. §52.520.}

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection A. Emissions Unit 001

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.7. 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.8. Additional Compliance Test Requirements. For compliance testing purposes, the maximum heat input rate shall not exceed 15 MMBtu per hour for each engine.

{Permitting Note: The hourly heat input limitation has been included to identify the capacity of each unit, to establish a compliance testing operating rate and to aid in determining future rule applicability. The hourly heat input is not to be construed as an operating limit during normal operation}

[Rule 62-210.200(PTE), F.A.C.; Initial Air Operation Permit 0070012-001-AO]

Recordkeeping and Reporting Requirements

A.9. Recordkeeping. Records shall be maintained of the amount of natural gas fired. Rolling 12-month totals shall be maintained and made available on site for a minimum of five years for Department inspection. [Rule 62-210.200(PTE), F.A.C. and Initial Air Operation Permit 0070012-001-AO]

A.10. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440(1)(b), F.A.C.]

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SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection B. Emissions Unit 002

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

EU No.	Brief Description
002	Internal Combustion Engine No. 1606. One non-emergency SI 2SLB NG fired engine.

Engine 1606 was issued a construction permit on May 10, 1991. This engine incorporates “lean burn” technology to minimize exhaust NO_x emissions.

{Permitting note(s): This emissions unit is subject to 40 CFR 63, Subpart ZZZZ, NESHAPS for Stationary Reciprocating Internal Combustion Engines. Pursuant to 40 CFR 63.6590(b)(3)(i), this emissions unit does not have to meet the requirements (including notification requirements) of 40 CFR 63, Subpart ZZZZ, NESHAPS for Stationary Reciprocating Internal Combustion Engines or the requirements of 40 CFR 63, Subpart A, General Provisions. Rule 212.400, F.A.C., Prevention of Significant Deterioration (PSD): Permit No. PSD-FL-160; Rule 62-212.400(4)(c), F.A.C., Best Available Control Technology (BACT) Determination, dated May 9, 1991.}

Essential Potential to Emit (PTE) Parameters

B.1. Permitted Capacity.

The maximum allowable heat input rate and natural gas consumption rate are as follows:

<u>Unit No.</u>	<u>Heat Input</u>	<u>Consumption</u>	<u>Fuel Type</u>
002	34.85 MMBtu/hr	33,833 scf/hr	Natural Gas

[Rule 62-210.200(PTE), F.A.C., Air Construction Permit No. AC04-189454 and subsequent revisions per correspondences that amended and increased the allowed heat input and fuel consumption.]

The maximum allowable operating rate (rated capacity) is 4,000 bhp (full speed, full load, 100°F ambient site temperature). Fluctuations in measured bhp, plus or minus ten percent ($\pm 10\%$) may occur as a result of natural uncontrolled fluctuations in ambient temperature, ambient pressure, fuel temperature, and a pulsation phenomenon inherent to the operation of reciprocating compressor engines.

[Rule 62-210.200(PTE), F.A.C.; Comments received from FGT on September 29, 2008]

B.2. Emissions Unit Operating Rate Limitation After Testing. See the related testing provisions in Appendix TR, Facility-wide Testing Requirements. [Rule 62-297.310(3), F.A.C.]

B.3. Methods of Operation. Fuels. The fuel that is allowed to be burned in this emission unit is natural gas. [Rule 62-210.200(PTE), F.A.C.; Air Construction Permit No. AC04-189454]

B.4. Hours of Operation. The engine may operate continuously (8,760 hours/year). [Rule 62-210.200(PTE), F.A.C.; Air Construction Permit No. AC04-189454]

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 times for **Specific Condition Nos. B.5, B.6, B.7, B.8, B.9, B.10 and B.11** below are based on the specified averaging time of the applicable test method.

B.5. Visible Emissions. Visible emissions shall not exceed 10% opacity. [Air Construction Permit No. AC04-189454]

B.6. CO Emissions. Carbon monoxide (CO) emissions shall not exceed 22.0 lb/hr (2.5 g/bhp-hr) and 96.6 tpy. [Air Construction Permit No. AC04-189454]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection B. Emissions Unit 002

- B.7. NO_x Emissions.** Nitrogen oxide (NO_x) emissions shall not exceed 17.6 lb/hr (2.0 g/bhp-hr) and 77.3 tpy. [Air Construction Permit No. AC04-189454]
- B.8. PM Emissions.** Particulate matter (PM) emissions shall not exceed 1.68 lb/hr (0.04831 lb/MMscf) and 7.36 tpy. PM emissions are minimized by good combustion design with the firing of natural gas as the exclusive fuel. [Air Construction Permit No. 0070012-008-AC]
- B.9. PM₁₀ Emissions.** Particulate matter less than 10 microns (PM₁₀) emissions shall not exceed 1.68 lb/hr (0.04831 lb/MMscf) and 7.36 tpy. PM₁₀ emissions are minimized by good combustion design with the firing of natural gas as the exclusive fuel. [Air Construction Permit No. 0070012-008-AC]
- B.10. SO₂ Emissions.** Sulfur dioxide (SO₂) emissions shall not exceed 0.97 lb/hr (10 gr S/100 scf) and 4.2 tpy. [Air Construction Permit No. AC04-189454 and subsequent correspondences and Air Construction Permit No. 0070012-008-AC]
- B.11. VOC Emissions.** Volatile organic compounds (VOC) emissions shall not exceed 8.8 lb/hr (1.0 g/bhp-hr) and 38.6 tpy. Compliance with the VOC emissions limit is assumed if the CO allowable emissions rate is achieved. [Air Construction Permit No. AC04-189454]

Excess Emissions

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

- B.12. Excess Emissions Allowed.** Excess emissions resulting from startup or shutdown of any emissions unit shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized. [Rule 62-210.700(2), F.A.C.]
- B.13. 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(2), F.A.C.]

{Permitting note: After May 22, 2018, subsections 62-210.700(1) and (2), F.A.C. shall not apply to emission limits in Chapter 62-296, F.A.C., that have been or that become incorporated into the State Implementation Plan for the State of Florida, identified in 40 C.F.R. §52.520; and unit-specific emission limits that have been or that become incorporated into the State Implementation Plan for the State of Florida, identified in 40 C.F.R. §52.520.}

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.}

- B.14. Test Methods.** When required, tests shall be performed in accordance with the following reference methods:

Method	Description of Method and Comments
1-4	Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content
5	Determination of Particulate Matter Emissions from Stationary Sources
7E	Determination of Nitrogen Oxide Emissions from Stationary Sources
9	Visual Determination of the Opacity of Emissions from Stationary Sources
10	Determination of Carbon Monoxide Emissions from Stationary Sources {Note: The method shall be based on a continuous sampling train.}
25A	Method for Determining Gaseous Organic Concentrations (Flame Ionization)

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection B. Emissions Unit 002

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 62-204.800, F.A.C.; Air Construction Permit No. AC04-189454]

- B.15. 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.]
- B.16. Annual Compliance Tests Required.** During each calendar year (January 1st to December 31st), EU 002 shall be tested to demonstrate compliance with the emissions standards for CO and NO_x. [Air Construction Permit No. AC04-189454]
- EU 002 shall demonstrate compliance with the SO₂, VOC and PM/PM₁₀ emission limits as follows:
- a. SO₂. Compliance with the SO₂ emissions limit can be demonstrated by calculations based on fuel analysis using ASTM D1072-80, D3031-81, D4084-82, or D3246-81 for sulfur content of gaseous fuels. [Comments from Florida Gas Transmission Company received on May 30, 2013; Air Construction Permit No. AC04-189454]
 - b. VOC. A demonstration of compliance with the VOC emissions limit, Method 25A, is not required provided that the result of the CO compliance test is within the permitted limits for this pollutant. [Air Construction Permit No. AC04-189454]
 - c. PM/PM₁₀. A demonstration of compliance with the PM/PM₁₀ emissions limit, Method 5, is required upon request of the Department. Good combustion design with the firing of natural gas as the exclusive fuel provides reasonable assurance of compliance with the PM/PM₁₀ emissions limit. [Air Construction Permit No. 0070012-008-AC]
- B.17. Compliance Tests Prior To Renewal.** Except as provided in subparagraph 62-297.310(8)(b)3., F.A.C. (see condition **TR7.b.(3)** in Appendix TR – Facility-wide Testing Requirements), in addition to the annual compliance tests specified above, compliance tests shall also be conducted for visible emissions prior to obtaining a renewed operation permit to demonstrate compliance with the emission limits in **Specific Condition No. B.5** Appendix TR (Facility-wide Testing Requirements) specifies one-half (1/2) hour is the minimum accepted time period for conducting the VE compliance test. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. [Rules 62-210.300(2)(a), 62-297.310(5)(b), and 62-297.310(8)(b), F.A.C.]

{Permitting Note: Tests which are only required once during the term of a permit prior to obtaining a renewed permit should be performed roughly five years from the previous test.}

Recordkeeping and Reporting Requirements

- B.18. Other Reporting Requirements.** See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440(1)(b), F.A.C.]

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SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection C. Emissions Unit 003

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

EU No.	Brief Description
003	NG fired 7,200 bhp combustion turbine No. 1607

{Permitting note(s): This emissions unit(s) is regulated under: New Source Performance Standards 40 CFR 60, Appendix A, General Provisions - adopted and incorporated by reference in Rule 62-204.800, F.A.C.; 40 CFR 60, Subpart GG, Standards of Performance for Stationary Gas Turbines - adopted by reference in Rule 62-204.800(7)(b), F.A.C. The requirements (including notification requirements) of 40 CFR 63, Subpart YYYY, NESHAPS for Stationary Combustion Turbines do not apply to this emission unit in accordance with 40 CFR 63.6090(b)(4)[i.e., existing stationary combustion turbines in all subcategories do not have to meet the requirements of this subpart and of subpart A of this part]. No initial notification is necessary for any existing stationary combustion turbine, even if a new or reconstructed turbine in the same category would require an initial notification.}

Essential Potential to Emit (PTE) Parameters

- C.1. Permitted Capacity.** The maximum allowable heat input rate to the gas turbine shall not exceed 68 million BTU per hour while producing approximately 7,200 bhp based on a compressor inlet air temperature of 59 ° F, 100% load, and a higher heating value (HHV) of 1040 BTU per SCF for natural gas. Heat input rates vary depending upon gas turbine characteristics, load, and ambient conditions. [Rule 62-210.200(PTE), F.A.C.; Air Construction Permit Nos. 0070012-004-AC and 0070012-011-AC]
- C.2. Emissions Unit Operating Rate Limitation After Testing.** See the related testing provisions in Appendix TR, Facility-wide Testing Requirements. [Rule 62-297.310(3), F.A.C.]
- C.3. Methods of Operation.**
- a. *Fuels.* The fuel that is allowed to be burned in this unit is pipeline-quality natural gas with a maximum of 10 grains of sulfur per 100 standard cubic feet of natural gas.
 - b. *Other.* Except for startup and shutdown, operation below 50% base load is prohibited.
- [Rules 62-210.200(PTE), F.A.C.; Air Construction Permit Nos. 0070012-004-AC and 0070012-011-AC]
- C.4. Hours of Operation.** The engine may operate continuously (8,760 hours/year). [Rule 62-210.200(PTE), F.A.C.; Air Construction Permit No. 0070012-004-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 times for **Specific Condition Nos. C.5, C.6, C.7, C.8, C.9, and C.10** are based on the specified averaging time of the applicable test method.

- C.5. Opacity.** Opacity shall not exceed 10% opacity, 6-minutes average ^A. The opacity standard is a 6-minute average, as determined by EPA Method 9. [Air Construction Permit No. 0070012-004-AC; Avoids Rule 62-212.400, F.A.C.]
- C.6. CO Emissions.** Carbon monoxide (CO) emissions shall not exceed 50 ppmvd at 15% O₂ ^A (6.9 lb/hr ^B and 30.2 tpy ^C). The CO standard is based on 3-hour test averages as determined by EPA Method 10. [Air Construction Permit No. 0070012-004-AC; Avoids Rule 62-212.400, F.A.C.]

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C.7. NO_x Emissions. Nitrogen oxide (NO_x) emissions shall not exceed 25 ppmvd at 15% O₂^A (5.6 lb/hr^B and 24.5 tpy^C). The NO_x standard is based on 3-hour test averages as determined by EPA Method 20. [Air Construction Permit No. 0070012-004-AC; Avoids Rule 62-212.400, F.A.C.]

{Permitting Note: This EU is also subject to an NSPS NO_x emissions limit of 190 ppmvd at 15% O₂ [40 CFR 60.332(a)(2)], which is 7.6 times less stringent than the 25 ppmvd at 15% O₂ NO_x emission limit that also applies. For this reason, the applicant requested and the Department agreed to omit the NSPS limit as a Specific Condition from the permit.}

C.8. PM Emissions. Particulate matter (PM) emissions are subject to good combustion practices.^{AD} Equivalent maximum PM emissions are 0.45 lb/hr^B and 2.0 tpy^C based on using data in Table 3.1-2a in AP-42. [Air Construction Permit No. 0070012-011-AC; Avoids Rule 62-212.400, F.A.C.]

C.9. SO₂ Emissions. Sulfur dioxide (SO₂) emissions shall not exceed 10 grains of sulfur per 100 SCF of natural gas^A (1.87 lb/hr^B and 8.2 tpy^C). The fuel sulfur emissions limit specification of 10 grains per 100 SCF is based on the maximum limit specified by Federal Emergency Regulatory Commission and effectively limits the potential SO₂ emissions. Expected fuel sulfur levels are less than 1 grain per 100 SCF of natural gas from the pipeline. [Air Construction Permit No. 0070012-011-AC; Avoids Rule 62-212.400, F.A.C.; 40 CFR 60.333; and Rule 62-204.800, F.A.C.]

C.10. VOC Emissions. Volatile organic compounds (VOC) emissions are subject to good combustion practices^A. The efficient combustion of clean fuels is indicated by compliance with opacity and CO standards. Equivalent maximum VOC emissions are 0.2 lb/hr^B and 0.9 tpy^C. Regulated VOC emissions were conservatively assumed to be 10% of the manufacturer's estimated emissions for total hydrocarbons. [Air Construction Permit No. 0070012-004-AC; Avoids Rule 62-212.400, F.A.C.]

Footnotes

A - The emissions standards of this permit ensure that the project does not trigger the PSD preconstruction review requirements of Rule 62-212.400, F.A.C.

B - Equivalent maximum hourly emission rates are the maximum expected emissions based on permitted capacity and a compressor inlet air temperature of 59°F. For comparison purposes, the permittee shall provide a reference table with the initial compliance test report of mass emission rates versus the compressor inlet temperatures. For tests conducted at 59°F or greater, measured mass emission rates shall be compared to the equivalent maximum emissions above. For tests conducted below 59°F, measured mass emission rates shall be compared to the table mass emission rates provided by the manufacturer based on compressor inlet temperatures.

C - Equivalent maximum annual emissions are based on 8760 hours of operation per year.

D - PM/PM₁₀ emissions are minimized by good combustion design with the firing of natural gas as the exclusive fuel.

Excess Emissions

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

C.11. Excess Emissions Allowed. Excess emissions resulting from startup or shutdown of any emissions unit shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized. [Rule 62-210.700(2), F.A.C.]

C.12. 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(2), F.A.C.]

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{Permitting note: After May 22, 2018, subsections 62-210.700(1) and (2), F.A.C. shall not apply to emission limits in Chapter 62-296, F.A.C., that have been or that become incorporated into the State Implementation Plan for the State of Florida, identified in 40 C.F.R. §52.520; and unit-specific emission limits that have been or that become incorporated into the State Implementation Plan for the State of Florida, identified in 40 C.F.R. §52.520.}

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.}

C.13. Test Methods. When required, tests shall be performed in accordance with the following reference methods:

Method	Description of Method and Comments
1-4	Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content
3a	Method 3A - Determination of Oxygen and Carbon Dioxide Concentrations in Emissions From Stationary Sources (Instrumental Analyzer Procedure)
7E	Determination of Nitrogen Oxide Emissions from Stationary Sources
9	Visual Determination of the Opacity of Emissions from Stationary Sources
10	Determination of Carbon Monoxide Emissions from Stationary Sources {Note: The method shall be based on a continuous sampling train.}
20	Determination of Nitrogen Oxides, Sulfur Dioxide and Diluent Emissions from Gas Turbines

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 62-204.800, F.A.C., Air Construction Permit Nos. 0070012-004-AC and 0070012-011-AC]

C.14. 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.]

C.15. Annual Compliance Tests Required.

CO and NO_x. During each calendar year (January 1st to December 31st), EU 003 shall be tested to demonstrate compliance with the emissions standards for Carbon Monoxide (CO) and Nitrogen Oxides (NO_x) in **Specific Condition Nos. C.6 and C.7**. CO and NO_x emissions shall be tested concurrently at permitted capacity. [Rule 62-297.310(8), F.A.C.; Air Construction Permit No. 0070012-004-AC]

SO₂. Mass emission rates for SO₂ shall be calculated based on actual fuel sulfur content and fuel flow rate. Compliance with the SO₂ emissions limit can be demonstrated by calculations based on fuel analysis using ASTM D1072-80, D3031-81, D4084-82, or D3246-81 for sulfur content of gaseous fuels. [Air Construction Permit No. 0070012-004-AC]

VOC and PM. VOC and PM emission limits are subject to good combustion practices. The efficient combustion of clean fuels is indicated by compliance with opacity and CO standards. [Air Construction Permit No. 0070012-004-AC]

C.16. Compliance Tests Prior To Renewal. Except as provided in subparagraph 62-297.310(8)(b)3., F.A.C. (see condition **TR7.b.(3)** in Appendix TR – Facility-wide Testing Requirements), in addition to the annual compliance tests specified above, compliance tests shall also be performed for opacity (visible emissions) prior to obtaining a renewed operation permit to demonstrate compliance with the opacity limit in **Specific Condition No. C.5** Appendix TR (Facility-wide Testing Requirements) specifies one-half (1/2) hour is the

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minimum accepted time period for conducting the VE compliance test. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. [Rules 62-210.300(2)(a), 62-297.310(5)(b), and 62-297.310(8)(b), F.A.C.]

{Permitting Note: Tests which are only required once during the term of a permit prior to obtaining a renewed permit should be performed roughly five years from the previous test.}

C.17. Additional Compliance Test Requirements. NO_x emissions shall be corrected to ISO ambient atmospheric conditions and compared to the NSPS Subpart GG standard for each required test. For each test run, the test report shall indicate the natural gas firing rate (cubic feet per hour), heat input rate (mmBTU per hour), the power output (bhp), percent base load, and the inlet compressor temperature. [Rules 62-204.800 and 62-297.310(6), F.A.C.; 40 CFR 60.332]

Recordkeeping and Reporting Requirements

C.18. Records:

- a. Using the automated gas turbine control system, the permittee shall monitor and record heat input (mmBTU), power output (bhp), and hours of operation for the gas turbine. If requested by the Department, the permittee shall be able to provide a summary of this information within at least ten days of such request. The information shall also be used for submittal of the required Annual Operating Report. [Air Construction Permit No. 0070012-004-AC]
- b. All measurements, records, and other data required by this permit shall be documented in a permanent, legible format and retained for at least five (5) years following the date on which such measurements, records, or data are recorded. Records shall be made available to the Department upon request. [Rule 62-213.440(1)(b)2., F.A.C.]

C.19. Test Reports. Each test report shall include measured mass emission rates for CO, NO_x and SO₂. [Air Construction Permit No. 0070012-004-AC]

C.20. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440(1)(b), F.A.C.]

Other Requirements

C.21. Component Replacements. For the replacement of gas turbine components to facilitate prompt repair and return the unit to its original specifications, the permittee shall comply with the following notification and testing requirements.

- a. Components shall only be replaced with functionally equivalent “like-kind” equipment. Replacement components may consist of improved or newer equipment, but such components shall not change operation or increase the capacity (heat input and power output rates) of the gas turbine. Replacement components that affect emissions shall be designed to achieve the emissions standards specified in all valid air permits and shall achieve these standards or better. After a component replacement, the gas turbine compressor engine remains subject to the standards of all valid air permits. [Rule 62-210.200(169), F.A.C.]
- b. The permittee shall notify the Compliance Authority within seven days after beginning any replacement of the gas generator component of the compressor engine. Within seven days of first fire on a replacement gas generator, the permittee shall submit the following information to the Compliance Authority: date of first fire and certification from the vendor that the replacement gas generator is a functionally equivalent “like kind” component. The vendor certification shall also identify the make, model number, maximum heat input rate (MMBtu/hour), power output (bhp) at ISO conditions, and that the permitted emission rates are achievable with the replacement component. This notification may be made by letter, fax or email. A copy of the information shall be kept on site at the compressor station. Within 60 days of restarting the

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unit after a gas generator replacement, the permittee shall conduct stack tests to demonstrate compliance with the applicable emission standards. The permittee shall notify the Compliance Authority in writing at least 15 days prior to conducting these tests. The permittee shall comply with all permit requirements for test notification, test methods, test procedures, and reporting. [Air Construction Permit No. 0070012-004-AC and Rules 62-4.130, 62-4.160(2),(6), and (15) and 62-297.310(9), F.A.C.]

- c. After investigation and for good cause, the Department may require special compliance tests pursuant to Rule 62-297.310(8)(c), F.A.C. [Rule 62-297.310(8)(c), F.A.C.]

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