



# Department of Environmental Protection

Jeb Bush  
Governor

Central District  
3319 Maguire Boulevard, Suite 232  
Orlando, Florida 32803-3767

Colleen M. Castille  
Secretary

## Electronic Mail

**Rick.Craig@panhandleenergy.com**

## NOTICE OF FINAL PERMIT

In the Matter of an  
Application for Permit by:

**Rick Craig, Vice President of Southeastern Operations  
Florida Gas Transmission Company  
Post Office Box 4967  
Houston, TX 77056-5306**

**FINAL Permit No.: 0950190-005-AV  
Facility ID No.: 0950190  
SIC Nos.: 49, 4922  
Project: Compressor Station No. 18**

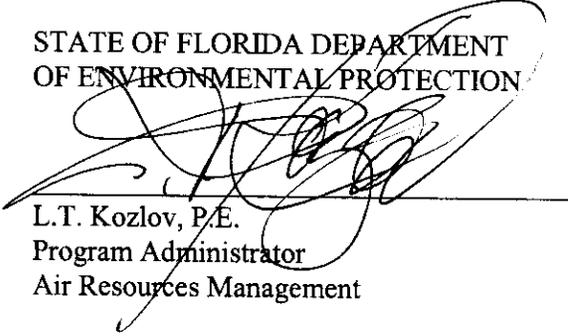
Dear Mr. Craig:

Enclosed is FINAL Permit Number 0950190-005-AV for the operation of the Florida Gas Transmission Company facility located at 7990 Steer Lake Road, near Orlando, Orange County, issued pursuant to Chapter 403, Florida Statutes (F.S.).

Any party to this order (permit) has the right to seek judicial review of the permit pursuant to Section 120.68, F.S., by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the permitting authority in the Legal Office; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 (thirty) days from the date this Notice is filed with the Clerk of the permitting authority.

Executed in Orlando, Florida.

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL PROTECTION

  
L.T. Kozlov, P.E.  
Program Administrator  
Air Resources Management

  
LTK/azt



Florida Gas Transmission Company  
**Facility ID No.:** 0950190  
Orange County

Title V Air Operation Permit Renewal  
**FINAL Permit No.:** 0950190-005-AV

**Permitting Authority:**

Florida Department of Environmental Protection  
3319 Maguire Boulevard, Suite 232  
Orlando, Florida 32803  
Telephone: 407/893-3334  
Fax: 407/897-5963

Title V Air Operation Permit Renewal  
Florida Gas Transmission Company  
Compressor Station No. 18  
**FINAL** Permit No.: 0950190-005-AV

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**Permittee:**  
Florida Gas Transmission Company  
EB3963  
Post Office Box 1188  
Houston, Texas 77251

**FINAL Permit No.:** 0950190-005-AV  
**Facility ID No.:** 0950190  
**SIC Nos.:** 49, 4922  
**Project:** Compressor Station No. 18

Attn: Rick Craig, Vice President of Southeastern Operations

This permit is for the operation of Compressor Station No. 18 located at 7990 Steer Lake Road, near Orlando, Orange County; UTM Coordinates: Zone 17, 451.9 km East and 3154.8 km North; Latitude: 28° 31' 15" North and Longitude: 81° 29' 31" West.

STATEMENT OF BASIS: This 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 perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents, attached hereto or on file with the permitting authority, in accordance with the terms and conditions of this permit.

**Referenced attachments made a part of this permit:**

Appendix I-1, List of Insignificant Emissions Units and/or Activities  
APPENDIX TV-5, TITLE V CONDITIONS (version dated 03/28/05)  
APPENDIX SS-1, STACK SAMPLING FACILITIES (version dated 10/7/96)  
Table 297.310-1, CALIBRATION SCHEDULE (version dated 10/7/96)  
Appendix GG, NSPS Subpart GG Requirements for Gas Turbines

**Effective Date:** March 1, 2006  
**Renewal Application Due Date:** August 28, 2010  
**Expiration Date:** February 28, 2011

FLORIDA DEPARTMENT OF  
ENVIRONMENTAL PROTECTION

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L. T. Kozlov, P.E.  
Program Administrator  
Air Resources Management

LTK/azt

**Section I. Facility Information.**

**Subsection A. Facility Description.**

This facility consists of five natural gas fired internal combustion engines and a gas turbine. Four engines are rated at 2000 bhp and are manufactured by Worthington, Model SEHG-8; one is rated at 2700 bhp and is manufactured by Cooper-Bessemer, Model GMVH-12C2. The gas turbine is rated at 7200 bhp and is manufactured by Coopers-Rolls Royce. This facility is part of a natural gas pipeline system serving the State of Florida.

Also included in this permit are miscellaneous insignificant emission units and/or activities.

Based on the Title V permit renewal application received September 6, 2000, this facility is a major source of hazardous air pollutants (HAPs).

**Subsection B. Summary of Emissions Unit ID No(s). and Brief Description(s).**

**E.U. ID No.**

**Existing Compressor Station 18 consists of the following six compressor engines.**

<b>ID</b>	<b>Emission Unit Description</b>
001	Engine 1801 is a 2000 bhp reciprocating internal combustion engine installed in 1962.
002	Engine 1802 is a 2000 bhp reciprocating internal combustion engine installed in 1962.
003	Engine 1803 is a 2000 bhp reciprocating internal combustion engine installed in 1962.
004	Engine 1804 is a 2000 bhp reciprocating internal combustion engine installed in 1968.
005	Engine 1805 is a 2700 bhp reciprocating internal combustion engine installed in 1991.
006	Engine 1806 is a 7200 bhp (ISO) gas turbine installed in 2003.

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. Relevant Documents.**

The documents listed below are not a part of this permit, however, are specifically related to this permitting action.

These documents are provided to the permittee for information purposes only:

Appendix A-1, Abbreviations, Acronyms, Citations, and Identification Numbers

Appendix H-1, Permit History / ID Number Changes

These documents are on file with permitting authority:

Initial Title V Permit Application received June 17, 1996.

Initial Title V Permit issued September 24, 1997.

Title V Permit Renewal Application received September 6, 2000.

Air Permit, Gas Turbine, 0950190-004-AC, issued January 10, 2003

Title V Permit Renewal Application received March 4, 2004.

## Section II. Facility-wide Conditions.

### The following conditions apply facility-wide:

1. APPENDIX TV-5, TITLE V CONDITIONS, is a part of this permit.
  2. General Pollutant Emission Limiting Standards. Objectionable Odor Prohibited. No person shall not cause, suffer, allow, or permit the discharge of air pollutants which cause or contribute to an objectionable odor.  
[Rule 62-296.320(2), F.A.C.]
  3. General Particulate Emission Limiting Standards. General Visible Emissions Standard. Except for emissions units that are subject to a particulate matter or opacity limit set forth or established by rule and reflected by conditions in this permit, no person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity, the density of which is equal to or greater than that designated as Number 1 on the Ringelmann Chart (20 percent opacity). EPA Method 9 is the method of compliance pursuant to Chapter 62-297, F.A.C.  
[Rules 62-296.320(4)(b)1. & 4., F.A.C.]
  4. Prevention of Accidental Releases (Section 112(r) of CAA).
    - a. The permittee shall submit its Risk Management Plan (RMP) to the Chemical Emergency Preparedness and Prevention Office (CEPPO) RMP Reporting Center when, and if, such requirement becomes applicable. Any Risk Management Plans, original submittals, revisions or updates to submittals, should be sent to:  
RMP Reporting Center  
Post Office Box 1515  
Lanham-Seabrook, Maryland 20703-1515  
Telephone: 301/429-5018
  - and,
  - b. The permittee shall 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]
5. Insignificant Emissions Units and /or Activities. Appendix I-1, List of Insignificant Emissions Units and/or Activities, is a part of this permit.
6. General Pollutant Emission Limiting Standards. 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 (VOC) or organic solvents (OS) without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department. To comply, procedures to minimize pollutant emissions shall include the following:
  - a) Tightly cover or close all VOC containers when they are not in use;
  - b) Tightly cover, where possible, all open troughs, basins, baths, tanks, etc. when they are not in use;

- c) Maintain all piping, valves, fittings, etc. in good operating condition;
- d) Prevent excessive air turbulence across exposed VOCs; and
- e) Immediately confine and clean up VOC spills and make sure certain wastes are placed in closed containers for reuse, recycling or proper disposal.  
[Rule 62-296.320(1)(a), F.A.C.]

7. Emissions of Unconfined Particulate Matter. Pursuant to Rules 62-296.320(4)©1., 3.&4., F.A.C., reasonable precautions to prevent unconfined emissions of unconfined particulate matter at this facility include the following requirements:

- a) Chemical or water application to unpaved roads and unpaved yard areas;
- b) Paving and maintenance of roads, parking areas and yards;
- c) Landscaping or planting of vegetation;
- d) Other techniques, as necessary.  
[Rule 62-296.320(4)(c)2., F.A.C.]

8. When appropriate, any recordings, monitoring, or reporting requirements that are time-specific shall be in accordance with the effective date of the permit, which defines day one.  
[Rule 62-213.440, F.A.C.]

9. Annual Statement of Compliance. The annual statement of compliance pursuant to Rule 62-213.440(3)(a)2., shall be submitted to the Department and EPA within 60 (sixty) days after the end of the calendar year using DEP Form No. 62-213.900(7), F.A.C.  
[Rules 62-213.440(3) and 62-213.900, F.A.C.]

{Permitting Note: This condition implements the requirements of Rules 62-213.440(3)(a)2. & 3., F.A.C. (see Condition 51. of APPENDIX TV-5, TITLE V CONDITIONS)}

10. The permittee shall submit all compliance related notifications and reports required of this permit to the following office:

Orange County Environmental Protection Department  
800 N. Mercy Drive, Suite 4  
Orlando, Florida 32808  
Telephone: 407/836-1400

11. Any reports, data, notifications, certifications, and requests required to be sent to the United States Environmental Protection Agency, Region 4, should be sent to:

United States Environmental Protection Agency  
Region 4  
Air, Pesticides & Toxics Management Division  
Air & EPCRA Enforcement Branch, Air Compliance Section  
61 Forsyth Street  
Atlanta, Georgia 30303  
Telephone: 404/562-9155; Fax: 404/562-9163

**12. Certification of Responsible Official (RO).** In addition to the professional engineering certification required for applications by Rule 62-4.050(3), F.A.C., any application form, report, compliance statement, compliance plan and compliance schedule submitted pursuant to Chapter 62-213, F.A.C., shall contain a certification signed by a responsible official that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. Any responsible official who fails to submit any required information or who has submitted incorrect information shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary information or correct information.

[Rule 62-213.420(4), F.A.C.]

**13. Annual Operating Report.** A DEP Form No. 62-210.900(5), "Annual Operating Report for Air Pollutant Emitting Facility" including the Emissions Report, shall be completed for each calendar year on or before March 1 of the following year and submitted to Orange County Environmental Protection Department.

[Rule 62-210.370(3), F.A.C.]

**14.** At least 180 days prior to the expiration date of this operation permit, the permittee shall submit to this office four copies of the air permit application, DEP Form No. 62-210.900(1).

[Rule 62-4.090(1), F.A.C.]

### Section III. Emissions Unit(s) and Conditions.

#### Subsection A. This section addresses the following emissions units.

**E.U. ID No.**  
**Brief Description**

**Existing Compressor Station 18 consists of the following six compressor engines.**

ID	Emission Unit Description
001	Engine 1801 is a 2000 bhp reciprocating internal combustion engine installed in 1962.
002	Engine 1802 is a 2000 bhp reciprocating internal combustion engine installed in 1962.
003	Engine 1803 is a 2000 bhp reciprocating internal combustion engine installed in 1962.
004	Engine 1804 is a 2000 bhp reciprocating internal combustion engine installed in 1968.
005	Engine 1805 is a 2700 bhp reciprocating internal combustion engine installed in 1991.
006	Engine 1806 is a 7200 bhp (ISO) gas turbine installed in 2003.

Four internal combustion engines are rated at 2000 bhp each and are manufactured by Worthington, Model SEHG-8. One internal combustion engine is rated at 2700 bhp, one is manufactured by Cooper-Bessemer, Model GMVH-12C2. The 7200 bhp gas turbine is manufactured by Cooper-Rolls Royce, Model 501-KC7 DLE. The gas turbine shall comply with the New Source Performance Standards (NSPS) of Subpart GG in 40 CFR 60. The applicable NSPS requirements are provided in Appendix GG of this permit. The Department believes that the conditions in this section are at least as stringent as, or more stringent than, the NSPS requirements of Subpart GG. [Rule 62-4.070(3), F.A.C.; 40 CFR 60, Subpart GG]

The following conditions apply to the emissions unit(s) listed above:

#### **Essential Potential to Emit (PTE) Parameters**

1. **Capacity.** The maximum natural gas consumption for engine numbers 1801, 1802, 1803 and 1804 shall not exceed 131,400 MMBtu per consecutive twelve months per engine. The maximum natural gas consumption for engine number 1805 shall not exceed 20,400 scf/hr (24 hour average) and the maximum heat input shall not exceed 21 MMBTU/hr (24 hour average). [Rule 62-210.200, (PTE), F.A.C.]

2. **Gas Turbine Permitted Capacity:** The maximum heat input rate to the gas turbine shall not exceed 68 MMBtu per hour (24-hour average) while producing approximately 7200 bhp (ISO) 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 will vary depending upon gas turbine characteristics, load, and ambient conditions. Performance data shall be adjusted for the appropriate site conditions in accordance with the performance curves and/or equations on file with the Department. Compliance with this equipment specification shall be demonstrated based on the information required in Condition 12 of this subsection. [Rule 62-210.200(PTE), F.A.C.]

3. **Authorized Fuel:** All engines shall fire only natural gas with a maximum of 10 grains of sulfur per 100 standard cubic feet of natural gas.[Applicant Request; Rule 62-210.200(PTE), F.A.C.]
4. **Hours of Operation.** Each engine is allowed to operate continuously.  
[Rule 62-210.200, (PTE), F.A.C.]
5. **Restricted Operation:** The hours of operation for the gas turbine are not limited (8760 hours per year). Except for startup and shutdown, operation below 50% base load is prohibited for the turbine unit 1806. [Rules 62-4.070(3) and 62-210.200(PTE), F.A.C.]
6. **Emissions Unit Operating Rate Limitation After Testing.** See specific condition no. 12.  
[Rule 62-297.310(2), F.A.C.]

**Emission Limitations and Standards**

7. The maximum allowable emissions from engine unit 1805 shall not exceed the emission rates as follows:

<u>Pollutant</u>	<u>Lbs/hr</u>	<u>Tons/yr</u>	<u>Emission factor</u>
Nitrogen Oxides	10.6	46.3	1.78 g/bhp-hr
Carbon Monoxide	11.1	48.7	1.87 g/bhp-hr
VOC (non-methane)	2.6	11.6	0.44 g/bhp-hr
Sulfur Dioxide	0.47	2.0	7.90 gr S/100 scf
HAPs	1.67	7.31	0.000618 lb/bhp-hr

[Construction permit AC48-189456 and particulate limits removed, 0950190-006-AC.

8. Visible emissions shall not exceed 10% opacity from engine no. 1805.  
[Construction permit AC48-189456]

9. **Emissions Standards:** Emissions from the gas turbine 1806 shall not exceed the following standards for carbon monoxide (CO), nitrogen oxides (NOx), opacity, particulate matter (PM), sulfur dioxide (SO2), and volatile organic compounds (VOC).

<b>Pollutant</b>	<b>Standards</b>	<b>Equivalent Maximum Emissions<sup>f</sup></b>		<b>Rule Basis<sup>g</sup></b>
		lb/hour	TPY	
CO <sup>a</sup>	50.0 ppmvd @ 15% O2	6.9	30.22	Avoid Rule 62-212.400, F.A.C.
NOx <sup>b</sup>	25.0 ppmvd @ 15% O2	5.7	24.97	Avoid Rule 62-212.400, F.A.C. 40 CFR 60.332
SO2 <sup>c</sup>	10.0 grains of sulfur per 100 SCF of gas	1.9	8.15	Avoid Rule 62-212.400, F.A.C. 40 CFR 60.333
Opacity <sup>d</sup>	10% opacity, 6-minute average	Not Applicable		Rule 62-4.070(3), F.A.C.
PM <sup>e</sup>	Efficient combustion of natural gas	0.5	1.96	Rule 62-4.070(3), F.A.C.
VOC <sup>e</sup>	Efficient combustion of natural gas	0.2	0.88	Rule 62-4.070(3), F.A.C.

- a. The CO standards are based on the average of three test runs as determined by EPA Method 10.
- b. The NOx standards are based on the average of three test runs as determined EPA Method 20.
- c. The fuel sulfur specification is based on the maximum limit specified by Federal Energy Regulatory Commission (FERC) and effectively limits the potential SO<sub>2</sub> emissions. Expected fuel sulfur levels are less than 1 grain per 100 SCF of natural gas from the pipeline.
- d. The opacity standard is based on a 6-minute average, as determined by EPA Method 9.
- e. For both PM and VOC, the efficient combustion of natural gas is indicated by compliance with opacity and CO standards. Equivalent maximum PM emissions are based on a factor of 0.0066 lb/MMBtu heat input from AP-42 Table 3.1-2a. Equivalent maximum VOC emissions are based on a total hydrocarbon factor of 1.58 lb/eng-hr from the vendor and the conservative assumption that 10% the hydrocarbons are regulated (non-methane) VOC. No testing is required.
- f. Equivalent maximum emissions are based on the maximum expected emissions, permitted capacity, a compressor inlet air temperature of 59° F, and 8760 hours of operation per year. 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. Each test report shall include measured mass emission rates for CO, NOx and SO<sub>2</sub>. Mass emission rates for SO<sub>2</sub> shall be calculated based on actual fuel sulfur content and fuel flow rate. 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 tabled mass emission rates provided by the manufacturer based on compressor inlet temperatures.
- g. Compliance with the emissions standards of this permit ensures that the project remains a minor source of air pollution with respect to PSD.

#### **Unit 1805 and Gas Turbine Unit 1806 Test Methods and Procedures**

**10. Annual Tests:** During each federal fiscal year (October 1 - September 30), units 1805 and 1806 shall be tested to demonstrate compliance with the emission standards for CO, NOx, and visible emissions. CO and NOx emissions shall be tested concurrently at permitted capacity. SO<sub>2</sub> emissions shall be calculated and reported based on fuel flow and vendor analysis of fuel sulfur content. In addition to the test results, each report shall include a general description of the maintenance activities and operation of this facility since the last test. [Rule 62-297.310(7)(a)4, F.A.C.]

**11.** At least 15 days prior to the date on which each formal compliance test is due to begin, the permittee shall provide written notification of the test to the Orange County Environmental Protection Division. The notification must include the following information: the date, time and location of each test; the name and telephone number of the facility's contact person who will be responsible for coordinating the test; and the name, company, and telephone number of the person conducting the test. [Rule 62-297.310(7)(a)9, F.A.C.]

12. Testing of emissions shall be conducted with the emissions unit operation at permitted capacity. Permitted capacity is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impractical to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. [Rule 62-297.310(2)& (2) (b), F.A.C.]

13. Test Methods: 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 {Permitting Note: These methods shall be used as necessary to support other required methods.}
9	Determination of Opacity
10	Determination of Carbon Monoxide Emissions {Permitting Note: This method shall be based on a continuous sampling train.}
19	Determination of Sulfur Dioxide and Nitrogen Oxides Emission Rates {Permitting Note: This method shall be used as necessary to support other required methods.}
20	Determination of Nitrogen Oxides, Sulfur Dioxide and Diluent Emissions from Gas Turbines

Tests shall be conducted in accordance with the requirements specified in Appendix SC of this permit. The above methods are described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. [Rules 62-204.800 and 62-297.100, F.A.C.; 40 CFR 60, Appendix A]

14. Compliance with the NOX, SO<sub>2</sub>, CO, visible emissions, and VOC standards shall be determined by the following reference methods as described in 40 CFR 60, Appendix A and adopted by reference in Rule 62-297.401, F.A.C.:

- a) Method 1      Sample and Velocity Traverse
- b) Method 2      Volumetric Flow Rate
- c) Method 3A     Gas Analysis
- d) Method 7E     Determination of Nitrogen Oxides Emissions from Stationary Sources
- e) Method 9      Determination of the Opacity of the Emissions from Stationary Sources
- f) Method 10     Determination of Total Gaseous Non-methane Organic Emissions as Carbon
- g) Method 25A    Determination of Total Gaseous Organic Concentration using a Flame Ionization Analyzer

15. The fuel sulfur content, percent by weight, for liquid fuels shall be evaluated using ASTM methods ASTM D4057-88 and one of ASTM D2622-94, ASTM D4294-98, ASTM D1552-95 or ASTM D129-91 adopted and incorporated by reference in Rule 62-297.440(1), F.A.C. Alternately, after written notification to and approval by the Department, the permittee may use other DEP Air Program-approved methods, i.e. alternate sampling procedures, for sulfur in petroleum products. [Rules 62-210.300(3)(c)1.c., F.A.C.]

16. Initial compliance with the volatile organic compound (VOC) emission limits was demonstrated by EPA Method 25A, thereafter, compliance with the VOC emission limits is assumed, provided the CO allowable emission limit is not exceeded. Test results will be the average of three valid runs. [Construction permit AC48-189456, operating permit AO48-191303, and Rule 62-297.401, F.A.C.]

17. The provisions of EPA Method 9 (40CFR), Appendix A) are adopted by reference with the following exceptions:

- a. EPA Method 9, Section 2.4, Recording Observations. Opacity observations shall be made and recorded by a certified observer at sequential fifteen second intervals during the required period of observation.
- b. EPA Method 9, Section 2.5, Data Reduction. For a set of observations to be acceptable, the observer shall have made and recorded, or verified the recording of, at least 90 percent of the possible individual observations during the required observation period. For single-valued opacity standards (e.g. 20 percent opacity), the test result shall be the highest valid six-minute average for the set of observations taken. For multiple-valued opacity standards (e.g. 20 percent opacity, except that an opacity of 40 percent is permissible for not more than two minutes per hour) opacity shall be computed as follows:
  1. For the basic part of the standard (i.e., 20 percent opacity) the opacity shall be determined as specified above for a single-valued opacity standard.
  2. For the short-term average part of the standard, opacity shall be the highest valid short-term average (i.e., two-minute, three-minute average) for the set of observations taken.

In order to be valid, any required average (i.e., a six-minute or two-minute average) shall be based on all of the valid observations in the sequential subset of observations selected, and the selected subset shall contain at least 90 percent of the observations possible for the required averaging time. Each required average shall be calculated by summing the opacity value of each of the valid observations in the subset, dividing this sum by the number of valid observations in the subset, and rounding the result to the nearest whole number. The number of missing observations in the subset shall be indicated in parenthesis after the subset average value.

[Rule 62-297.401, F.A.C.]

18. Test Reports: The permittee shall prepare and submit reports for all required tests in accordance with the requirements specified in Appendix SC of this permit. In addition, NOx emissions shall be corrected to ISO ambient atmospheric conditions and compared to the NSPS Subpart GG standard identified in Appendix GG of this permit for each required test. For each test run, the report shall also indicate the natural gas firing rate (cubic feet per hour), heat input rate (MMBtu per hour), the power output (bhp), percent peak load, and the inlet compressor temperature. [Rule 62-297.310(8), F.A.C.; 40 CFR 60.334]

### **Gas Turbine 1806 Monitoring of Operation**

19. **Fuel Monitoring**: The gas turbine shall fire only pipeline natural gas with a maximum fuel sulfur content of no more than 10 grains of sulfur per 100 cubic feet of gas. The permittee shall take no allowance for fuel bound nitrogen (F-value = 0) when demonstrating compliance with the NSPS Subpart GG NO<sub>x</sub> standard. Based on these restrictions, no monitoring for the fuel nitrogen and sulfur contents is required. This is also described in Appendix GG of this permit. [Rule 62-4.070(3), F.A.C.; 40 CFR 60.334, as amended]

20. **Operational Data**: 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. Within the 10 days of a request by the Department or the Compliance Authority, the permittee shall be able to summarize the following information for a given day: heat input (MMBtu per hour, daily average); power output (bhp, daily average); and total 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.]

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 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. [Rules 62-4.130, 62-4.160(2), (6), and (15) and 62-297.310(7)(b), F.A.C.]
- c. After investigation and for good cause, the Department may require special compliance tests pursuant to Rule 62-297.310(7)(b), F.A.C.

**22. Required Equipment.** The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards. [Rule 62-297.310(5), F.A.C.]

**23. Accuracy of Equipment.** Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10 percent of its true value. [Rule 62-297.310(5), F.A.C.]

### **Units 1801-1805 Recordkeeping and Reporting**

**24.** In order to demonstrate compliance with operating condition number 1, the permittee shall maintain a log at the facility for a period of at least 5 years from the date the data is recorded. The log shall contain the designation of the month and year of operation for which the records are being tabulated and at least the following:

#### **Unit 1805, Monthly**

a) Consecutive 24 hour average of heat input

#### **Units 1801-1804, Monthly**

a) Consecutive twelve month fuel usage for each engine  
[Rule 62-4.070(3), F.A.C.]

Note: A consecutive 12 month total is equal to the total for the month in question plus the totals for the eleven months previous to the month in question. A consecutive 12-month total treats each month of the year as the end of a 12-month period. A 12-month total is not a year-to-date total. Facilities that have not been operating for 12 months should retain 12 month totals using whatever number of months of data are available until such a time as a consecutive 12 month total can be maintained each month.