Florida Gas Transmission Company
Compressor Station No. 16
Facility ID No.: 0070012
Branford County

Title V Air Operation Permit Revision

FINAL Permit No.: 0070012-010-AV
Revision to Title V Air Operation Permit No.: 0070012-007-AV

Permitting and Compliance Authority:
Department of Environmental Protection
Northeast District Air Program
7825 Baymeadows Way, Suite B-200
Jacksonville, Florida 32256-7590
Telephone: 904/807-3300
Fax: 904/448-4363

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FINAL Permit No.: 0070012-010-AV
Facility ID No.: 0070012
SIC No(s).: 49, 4922
Project: Title V Air Operation Permit Revision

This permit revision is being issued for the purpose of incorporating the terms and conditions of Air Construction Permit, No. 0070012-011-AC, to revise the Particulate Matter (PM/PM_{10}), and SO_2 emission limits for Emission Unit 003; for an increase in heat rate for EU003 (Engine 1607) from 62.1 MMBtu/hr to 68 MMBth/hr; to add language that would allow turbine replacement; to add the requirements of 40 CFR 60, Subpart GG and to delete Specific Condition C.19: Custom Fuel Monitoring Schedule. This facility is located at Highway 231 North, Brooker, Bradford County, Florida; UTM Coordinates: Zone 17, 371.98 km East and 3310.57 km North; and, Latitude: 29° 55' 16" North and Longitude: 82° 19' 34" West.

This Title V Air Operation Permit Revision 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 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 U-1, List of Unregulated Emissions Units and/or Activities
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 10/07/96
TABLE 297.310-1, CALIBRATION SCHEDULE version dated 10/07/96
FIGURE 1 - SUMMARY REPORT-GASEOUS AND OPACITY EXCESS
EMISSION AND MONITORING SYSTEM PERFORMANCE REPORT version dated 07/96
APPENDIX C NSPS SUBPART GG REQUIREMENTS FOR GAS TURBINES

Initial Effective Date: December 29, 2003
Revision Effective Date: June 12, 2006
Renewal Application Due Date: June 22, 2008
Expiration Date: December 29, 2008

Christopher L. Kirts, P.E.
District Air Program Administrator

CLK:lm

Section I. Facility Information.

Subsection A. Facility Description.

This facility consists of seven natural gas fired engines, five rated at 2,000 bhp and manufactured by Worthington, model SEHG-8, one rated at 4,000 bhp and manufactured by Cooper-Bessemer, model 8W-330-C2, and one rated at 7,200 bhp manufactured by Cooper-Rolls 501-KC7 DLE. A new gas fired 440 kW (585 hp) Waukeshua Model H24GL emergency generator. This facility is part of a natural gas transmission pipeline system serving the state of Florida.

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

Based on the initial Title V Air Operation Permit application received **June 18, 1996**, this facility **is not** 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.	Brief Description
001	Internal Combustion Engine No. 1601, 1602, 1603, 1604, and 1605
002	Internal Combustion Engine No. 1606
003	Internal Combustion Engine No. 1607

Unregulated Emissions Units and/or Activities

xxx GEN03: Waukesha Model No. H24GL emergency generator (585 bhp) fired exclusively with natural gas.
xxx Air Compressor No. 1: 80 bhp air compressor engine fired exclusively with natural gas.
xxx Lube oil storage tanks
xxx Used oil storage tanks
xxx Miscellaneous fugitive emission leaks from valves, flanges, etc.

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, they are specifically related to this permitting action.

These documents are provided to the permittee for information purposes only:
Table 1-1, Summary of Air Pollutant Standards and Terms
Table 2-1, Summary of Compliance Requirements
Appendix A-1: Abbreviations, Acronyms, Citations, and Identification Numbers
Appendix H-1: Permit History
Statement of Basis

These documents are on file with the permitting authority:
Initial Title V Air Operation Permit issued March 20, 1998
Application for a Title V Air Operation Permit Revision received December 28, 2005

Section II. Facility-wide Conditions.

The following conditions apply facility-wide:

1. APPENDIX TV-5, TITLE V CONDITIONS, is a part of this permit.
{Permitting note: APPENDIX TV-5, TITLE V CONDITIONS, is distributed to the permittee only. Other persons requesting copies of these conditions shall be provided a copy when requested or otherwise appropriate.}

2. General Pollutant Emission Limiting Standards. Objectionable Odor Prohibited. No person shall 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, MD 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. Unregulated Emissions Units and/or Activities. Appendix U-1, List of Unregulated Emissions Units and/or Activities, is a part of this permit.
[Rule 62-213.440(1), F.A.C.]

6. Insignificant Emissions Units and/or Activities. Appendix I-1, List of Insignificant Emissions Units and/or Activities, is a part of this permit.
[Rules 62-213.440(1), 62-213.430(6) and 62-4.040(1)(b), F.A.C.]

7. 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.

[Rule 62-296.320(1)(a), F.A.C.; 0070012-004-AC]

8. Emissions of Unconfined Particulate Matter. Pursuant to Rule 62-296.320(4)(c), F.A.C., and the application, this facility has **no** emissions of unconfined particulate matter (see Condition 57. of APPENDIX TV-5, TITLE V CONDITIONS).
[Rule 62-296.320(4)(c), F.A.C.; and, **initial** Title V permit application received June 18, 1996
9. When appropriate, any recording, 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.]

10. Statement of Compliance. The annual statement of compliance pursuant to Rule 62-213.440(3)(a)2., F.A.C., 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)}

11. The permittee shall submit all compliance related notifications and reports required of this permit to the Department's Northeast District office.

Department of Environmental Protection
Northeast District Office
7825 Baymeadows Way, Suite B200
Jacksonville, Florida 32256-7590
Telephone: 904/807-3300; Fax: 904/448-4363

12. 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 and EPCRA Enforcement Branch
Air Enforcement Section
61 Forsyth Street
Atlanta, Georgia 30303-8960
Telephone: 404/562-9155; Fax: 404/562-9163

13. Certification by 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.]

Section III. Emissions Unit(s) and Conditions.

Subsection A. This section addresses the following emissions unit(s).

E.U. ID No.	Brief Description
001	Compressor Engine Nos. 1601, 1602, 1603, 1604, and 1605

Five engines (No. 1601, 1602, 1603, 1604, and 1605) are each rated at 2,000 boiler horse power (bhp) and manufactured by Worthington, model SEHG-8.

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

Essential Potential to Emit (PTE) Parameters

A.1. Heat Input. The maximum allowable heat input shall not exceed 75 million BTU per hour for all five engines totaled.
[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C., Operating permit 0070012-001-AO]

A.2. Methods of Operation. Fuel(s). Each engine shall fire natural gas only.
[Rule 62-213.410, F.A.C.; Air operation Permit 0070012-001-AO].

A.3. **Hours of Operation.** Each engine is allowed to operate continuously, i.e., 8,760 hours/year.
[Rule 62-210.200(PTE), F.A.C.]

{Permitting note: Table 1-1, Summary of Air Pollutant Standards and Terms, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

Recordkeeping and Reporting Requirements

A.4. Record Keeping. Records shall be maintained of the amount of natural gas fired.
[Operating permit 0070012-001-AO]

Subsection B. Common Conditions.

E.U. ID No.	Brief Description
002	Engine No. 1606

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

Engine No. 1606 is rated at 4,000 bhp and manufactured by Cooper-Bessemer, Model 8W-330-C2. This engine incorporates "lean burn" technology to minimize exhaust NO_x emissions.

{Permitting note(s): Rule 212.400(5), F.A.C., Prevention of Significant Deterioration (PSD): Permit No. PSD-FL-161; Rule 62-212.400(6), F.A.C., Best Available Control Technology (BACT) Determination, dated May 8, 1991}; NSPS 40 CFR 60, Appendix A, adopted by reference in Rule 62-204.800, F.A.C.

Essential Potential to Emit (PTE) Parameters

B.1. Permitted Capacity. The maximum allowable operating rate (rated capacity) is 4,000 bhp.
[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.]

B.2. Heat Input. The maximum allowable heat input shall not exceed 34.85 million BTU per hour for this engine.
[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.]

B.3. Methods of Operation. Fuel(s). This engine shall fire natural gas only.
[Rule 62-213.410, F.A.C.; Air Operation Permit AO04-232243]

B.4. Fuel Consumption. The maximum natural gas consumption shall not exceed 33,833 scf/hr for this engine.
[Rule 62-210.200(PTE), F.A.C.; Air Operation Permit AO04-232243]

B.5. **Hours of Operation.** This emissions unit is allowed to operate continuously, i.e., 8,760 hours/year.
[Rule 62-210.200(PTE), F.A.C.; Air Operation Permit AO04-232243]

Emission Limitations and Standards

Table 1-1, Summary of Air Pollutant Standards and Terms, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

B.6. Maximum Allowable Emissions Rates. The maximum allowable emission rate shall not exceed the emissions rates below as follows:

Pollutant	Emissions Rate lb/hr	Emissions Rate tons/year		Emissions Factor
Nitrogen Oxides		17.64	77.26	2.0 g/bhp-hr
Carbon Monoxide	22.05	96.58		2.5 g/bhp-hr
VOC	8.82	38.63		1.0 g/bhp-hr
Sulfur Dioxide	0.80	3.48		10 gr S/ 100 scf
Particulate Matter	1.68	7.36		0.04831 lbs/MMscf **NOTE (1)**
PM10	1.68	7.36		0.04831 lbs/MMscf **NOTE (1)**
Visible Emissions	10% Opacity			

NOTE (1) PM/PM_{10} emissions are minimized by good combustion design with the firing of natural gas as the exclusive fuel.
[Permit Application dated September 13, 2002]

{Permitting Note: This standard supersedes the previously specified permit limits for PM (TSP and PM_{10}) in Permit No. 0070012-006-AV and all prior Air Construction Permits, as well as the outdated referenced emission factor. This does not result in any increases in actual or potential emissions of PM}.

Monitoring of Operations

B.7. Determination of Process Variables.

(a) 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.

(b) 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% of its true value.
[Rule 62-297.310(5), F.A.C.]

Test Methods and Procedures

Table 2-1, 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.8. Annual Testing. Compliance with each of the emissions limits stated in Specific Condition B.6. shall be demonstrated on an annual basis on or within 60 days prior to July 30.

B.9. Test Methods. Compliance with the NOx, SO_2, 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, F.A.C.:

Method 1	Sample and Velocity Traverse
Method 2	Volumetric Flow Rate
Method 3A	Gas Analysis
Method 7E	Determination of Nitrogen Oxides Emissions from Stationary Sources
Method 9	Determination of the Opacity of the Emissions from Stationary Sources
Method 10	Determination of Total Gaseous Nonmethane Organic Emissions as Carbon
Method 25A	Determination of Total Gaseous Organic Concentration using a Flame Ionization Analyzer

[Construction Permit AC04-189454]

B.10. SO_2 Emissions. 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.

B.11. Testing. A demonstration of compliance with the VOC emissions limit, Method 25A, is not required provided that the results of the CO compliance test is within the permitted limits for this pollutant.
[Construction permit AC, Operating permit AO04-232243, Rule 62-297.401, F.A.C.]

B.12. Testing. 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 o limited, operation at higher capacities is allowed for no more than 15 consecutive days for the apprise of additional compliance testing to regain the authority to operate at the permitted capacity.
[Rule 62-297.310(2) F.A.C.]

B.13. Notification. 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 Northeast District. 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.]

Recordkeeping and Reporting Requirements

B.14. Reports. Reports of the required test report shall be filed with the Northeast District office as soon as practical but no later than 45 days after the last test is completed.
[Rule 62-297.310(8), F.A.C.]

Subsection C. This section addresses the following emissions unit.

E.U. ID No.	Brief Description
003	Gas Turbine Compressor No. 1607

One gas turbine No. 1607 rated at 7009 bhp fired by natural gas, installed as a compressor and manufactured by Cooper-Rolls Model 501-KC7-DLE.

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

{Permitting note(s): This emissions unit(s) is regulated under: New Source Performance Standards 40 CFR 60- General Provisions, Appendix A- adopted and incorporated by reference in Rule 62-204.800, F.A.C.; 40 CFR 60, Subpart GG- New Source Performance Standards for gas turbines, adopted by reference in Rule 62-204.800(7)(b), F.A.C.

The following specific conditions apply to the emissions units listed above:

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 7,009 bhp based on a compressor inlet air temperature of 59 º 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.
[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C., Air Permit No. 0070012-011AC]

C.2. Methods of Operation. Fuel(s). This engine shall fire only pipeline-quality 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.; Air Construction Permit 0070012-004-AC]

C.3. Hours of Operation. This emissions unit is allowed to operate continuously, i.e., 8,760 hours/year. Except for startup and shutdown, operation below 50% base load is prohibited.
[Rule 62-210.200(PTE), F.A.C.; Rules 62-4.070(3), F.A.C; Air Permit 0070012-004-AC]

C.4. 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.
[Rule 62-296.320(1), F.A.C.; 0070012-004-AC]

C.5. Objectionable Odor Prohibited.
No person shall 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.; Air Permit No. 0070012-004-AC]

C.6. 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.
[Rule 62-296.320(4)(b)1, F.A.C.; Air Permit No. 0070012-004-AC]

Emission Limitations and Standards

Table 1-1, Summary of Air Pollutant Standards and Terms, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

C.7. Maximum Allowable Emission Rates. The maximum allowable emission rate shall not exceed the emissions rates below as follows:

Pollutant	Standards		Equivalent Maximum Emissions		Rule Basis [h]
	Limit	Units	Lb/hour [f]	TPY [g]	
CO [a]	50.0	ppmvd @ 15% O_2	6.9	30.2	Avoid Rule 62-212.400, F.A.C.
NO_x [b]	25.0	ppmvd @ 15% O_2	5.6	24.5	Avoid Rule 62-212.400, F.A.C. 40 CFR 60.332
SO_2 [c]	10.0	grains of sulfur per 100 SCF of natural gas	1.87	8.2	Avoid Rule 62-212.400, F.A.C. 40 CFR 60.332
Opacity [d]	10% opacity, 6-minutes average		Not Applicable		Avoid Rule 62-212.400, F.A.C.
PM [e]	Good combustion practices		0.45	2.0	Avoid Rule 62-212.400, F.A.C.
VOC [e]	Good combustion practices		0.2	0.9	Avoid Rule 62-212.400, F.A.C.

a. The CO standards are based on 3-hour test averages as determined by EPA Method 10.
b. The NO_x standards are based on 3-hour test averages as determined by EPA Method 20.
c. The fuel sulfur specification is based on the maximum limit specified by Federal Emergency Regulatory Commission (FERC) and effectively limits the potential SO_2 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 clean fuels is indicated by compliance with opacity and CO standards. Equivalent maximum PM emissions were based on data in Table 3.1-2a in AP-42. Regulated VOC emissions were conservatively assumed to be 10% of the manufacturer's estimated emissions for total hydrocarbons. No testing required.

Specific Condition C.7. continued:

f. 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 verses the compressor inlet temperatures. Each test report shall include measured mass emission rates for CO, NO_x and SO_2. Mass emission rates for SO_2 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 table mass emission rates provided by the manufacturer based on compressor inlet temperatures.
g. Equivalent maximum annual emissions are based on 8760 hours of operation per year.
h. The emissions standards of this permit ensure that the project does not trigger the PSD preconstruction review requirements of Rule 62-2212.400, F.A.C.

NOTE (1) PM/PM_{10} emissions are minimized by good combustion design with the firing of natural gas as the exclusive fuel.

{Permitting Note: This standard supersedes the previously specified permit limits for PM (TSP and PM_{10}) in all prior Air Construction Permits and all prior Title V Permits concerning EU003, as well as the outdated referenced emission factor. This does not result in any increases in actual or potential emissions of PM. Also this standard supersedes the previously specified permit limits for SO_2 in all prior Air Construction Permits and all prior Title V Permits concerning EU003.}

[Air Construction Permit No. 0070012-011-AC]

<u>Test Methods and Procedures</u>

Table 2-1, 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.8. <u>Annual Testing.</u> During each federal fiscal year (October 1st to September 30th) the gas turbine shall be tested to demonstrate compliance with the emission standards for CO, NO_X and VE.
[Rule 62-297.310(7)(a)4, F.A.C.; Air Permit No. 0070012-004-AC]

C.9. <u>Testing.</u> CO and NOx emissions shall be tested concurrently at permitted capacity. SO_2 emissions shall be calculated based on the vendor analysis of fuel sulfur content.
[Rule 62-297.310(7)(a)4, F.A.C. and to avoid Rule 62-212.400, F.A.C.; 0070012-004-AC]

C.10. Notification. 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 Northeast District. 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 297.310(7)(a)9, F.A.C.; 40 CFR 60.7 and, 60.8; Construction Permit 0070012-004-AC]

C.11. Reports. Reports of the required test report shall be filed with the Northeast District office as soon as practical but no later than 45 days after the last test is completed.
[Rule 62-297.310(8), F.A.C.]

C.12. Test Methods. Compliance with the NOx, SO_2, 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, F.A.C.:

Method 1-4	Sample and Velocity Traverse, flow rate, Gas analysis, and Moisture content
Method 9	Determination of the Opacity of the Emissions from Stationary Sources Method 10 Determination of Total Gaseous Nonmethane Organic Emissions as Carbon
Method 19	Determination of Sulfur Dioxide Removal efficiency and Particulate Matter, Sulfur Oxides Emission Rate) Optional F-factor method may be used to determine flow rate and gas analysis to calculate mass emissions in lieu of Methods 1-4).
Method 20	Determination of Nitrogen Oxides, Sulfur Dioxide and Diluent Emissions from Gas Turbines.
Method 7E, Method 3 or 3a	Test Methods for Determination of Nitrogen Oxides

[40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C.; Construction Permit 0070012-004-AC and Construction Permit 0070012-011-AC]

C.13. NOx Emissions. 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 9mmBTU per hour), the power output (bhp), percent base load, and the inlet compressor temperature.
[Rule 62-297.310(80, F.A.C.; 40 CFR 60.332]

C.14. Operating Rate During Testing. Unless otherwise stated in the applicable emission limiting standard rule, testing of emissions shall be conducted with the emissions unit operating at permitted capacity as defined below. If it is impracticable 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.

(b) All Other Sources. Permitted capacity is defined as 90 to 100 percent of the maximum operation rate allowed by the permit.
[Rules 62-297.310(2) and 62-297.310(2), F.A.C.]

C.15. Calculation of Emission Rate.
For each emissions performance test, the indicated emission rate concentration shall be the arithmetic average of the emission rate or concentration determined by each of the three separate test runs unless otherwise specified in a particular test method or applicable rule.
[Rule 62-297.310(3), F.A.C.]

C.16. Special Compliance Tests. When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it may require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department.
[Rule 62-297.310(7)(b), F.A.C.]

C.17. Applicable Test Procedures.

(a) Required Sampling Time.

Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling port shall be of equal intervals of at least two minutes. The minimum observation period for a visible emissions compliance test shall be thirty (30) minutes. The observation period shall include the period during which the highest opacity can reasonably be expected to occur.

(b) Minimum Sample Volume.

Unless otherwise specified in the applicable rule or test method, the minimum sample volume per run shall be 25 dry standard cubic feet.

(c) Calibration of Sample Equipment.

Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310(1), F.A.C.
[Rule 62-297.310(4), F.A.C.]

C.18. Determination of Process Variables.

(a) 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.

(b) 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% of its true value.
[Rule 62-297.310(5), F.A.C.]

Monitoring of Operations

C.19. RESERVED.

C.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. 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.
[Rule 62-4.070(3), F.A.C.; 0070012-004-AC]

Excess Emissions

C.21. Excess Emissions. Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) 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.]

C.22. Excess Emissions. 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.]

C.23. Excess Emissions. In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department immediately in accordance with Rule 62-4.130, F.A.C. 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.]

Recordkeeping and Reporting Requirements

C. 24. Test Reports.

(a) The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department on the results of each such test.

(b) The required test report shall be filed with the Department as soon as practical but no later than 45 days after the last sampling run of each test is completed.

(c) The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the following information:

1. The type, location, and designation of the emissions unit tested.
2. The facility at which the emissions unit is located.
3. The owner or operator of the emissions unit.
4. The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.
5. The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.
6. The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.
7. A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.
8. The date, starting time and duration of each sampling run.
9. The test procedures used, including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.
10. The number of points sampled and configuration and location of the sampling plane.
11. For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.
12. The type, manufacturer and configuration of the sampling equipment used.
13. Data related to the required calibration of the test equipment.
14. Data on the identification, processing and weights of all filters used.
15. Data on the types and amounts of any chemical solutions used.
16. Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.
17. The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.
18. All measured and calculated data required to be determined by each applicable test procedure for each run.
19. The detailed calculations for one run that relate the collected data to the calculated emission rate.

Specific Condition C.24. continued:

20. The applicable emission standard, and the resulting maximum allowable emission rate for the emissions unit, plus the test result in the same form and unit of measure.
21. A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department or its agent, the person who conducts the test shall provide the certification with respect to the test procedures used. The owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge.

[Rule 62-297.310(8), F.A.C.]

C.25. <u>Record keeping.</u> 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 62-4.160(14) and 62-213.440(1)(b)2, F.A.C.]

C.26. <u>Required number of test runs.</u>
For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollution emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variable corresponding to the three distinct time periods during which the stack emission rate was measured; provided, however, that three complete and separate determinations shall not be required if the process variation during a compliance test, or if three determinations are not necessary in order to calculate
the unit's emission rate. The three required test runs shall be completed within one consecutive five-day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five-day period allowed for the test, the Secretary or his or her designee may accept the results of two complete runs as proof of compliance, provided that the arithmetic mean of the two complete runs is at least 20% below the allowable emission limiting standard.
[Rule 62-297.310(1), F.A.C.; 0070012-004-AC]

C.27. <u>Plant Operation- Problems.</u>
If temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by fire, wind or other cause, the permittee shall notify the Compliance Authority as soon as possible, but at least within one working day, excluding weekends and holidays. The notification shall include: pertinent information as to the cause of the problem; steps being taken to correct the problem and prevent future recurrence; and, where applicable, the owner's intent towards reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with conditions of this permit or the regulations.
[Rule 62-4.130, F.A.C.]

C.28. Circumvention.
The permittee shall not circumvent the air pollution control equipment or allow the emission of air pollutants without this equipment operating properly.
[Rule 62-210.650, F.A.C.]

C.29. 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 acieve the emissions standards specified in all valid air permits and shall achieve these standards or btter. After a component replacement, the gas turbine compressor engine remains subject to the standards of all valid air pemits. [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 cerification 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 geas generator replacement, the permittee shall conduct stack tests to demonstrate compliance with the applicable emission standars. 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 620297.310(7)(b), F.A.C.

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