

Florida Gas Transmission Company

Compressor Station No. 16

Facility ID No.: 0070012

Bradford County

Title V Air Operation Permit Renewal

Permit No. 0070012-015-AV

(Renewal of Title V Air Operation Permit No. 0070012-013-AV)



Permitting Authority:

State of Florida
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Northeast District Office
Waste and Air Resource Management
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Title V Air Operation Permit Renewal

Permit No. 0070012-015-AV

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**FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION**

NORTHEAST DISTRICT
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Final Permit No. 0070012-015-AV
Facility ID No.: 0070012
SICS No(s). 4922
Project: Title V Air Operation Permit Renewal

The purpose of this permit is to renew Title V Air Operation Permit No. 0070012-013-AV. This permit also revises the annual Visible Emissions requirement of EU002 & EU003 to a 5 year testing prior to obtaining a renewed operation permit. This existing facility is located at 14369 SW State Road 231, 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 Renewal 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.

Effective Date October 11, 2013
Renewal Application Due Date: February 28, 2018
Expiration Date: October 11, 2018

Richard S. Rachal III, P.G.
Program Administrator
Waste and Air Resources Management Program

RSR/yke

SECTION II. FACILITY INFORMATION

Subsection A. Facility Description:

Florida Gas Transmission Company (FGT) is a natural gas compression station which consists of seven; natural gas fired Spark Ignition (SI) Reciprocating Internal Combustion Engines and one Combustion turbine.

Five Internal Combustion Engines, No. 1601, 1602, 1603, 1604, and 1605 all classified as EU 001. The five identical four- stroke lean-burn (4SLB) Worthington manufactured engines, model SEHG-8 are rated at 2,000 bhp (each).

One Internal Combustion Engine No. 1606 identified as EU 002, which is a two- stroke lean - burn (2SLB) Cooper-Bessemer, manufactured engine model 8W-330-C2 rated at 4,000 bhp.

One Combustion turbine No. 1607 identified as EU 003, manufactured by Cooper-Rolls 501-KC7 DLE rated at 7,200 bhp.

One GEN03 Waukesha Model No. H24GL natural gas fired emergency generator identified as EU 004. The engine is a four- cycle lean burn, spark ignition, internal combustion natural gas engine manufactured prior to December 19, 2002.

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

Subsection B. Summary of Emissions Units and activities:

EU No.	Brief Description
<i>Regulated Emissions Units</i>	
001	Internal Combustion Engine No. 1601, 1602, 1603, 1604, and 1605
002	Internal Combustion Engine No. 1606
003	Combustion turbine No. 1607
004	Internal Combustion Engine GEN03 Waukesha Model No. H24GL natural gas fired emergency generator (585 bhp)

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

SECTION II. FACILITY INFORMATION

Subsection C. Applicable Regulations:

Based on the Title V Air Operation Permit Renewal application received May 30, 2013, this facility is a major source of hazardous air pollutants (HAP). The existing facility is not a 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).
40 CFR 60, Subpart A, NSPS General Provisions	003
40 CFR 60, Subpart GG, Standards of Performance for Gas Turbines	003
PSD BACT	002
40 CFR 63, Subpart ZZZZ- National Emissions Standards For Hazardous Air Pollutants For Stationary Reciprocating Internal Combustion Engines	004
State Rule Citations (Rule 62-4, 62-204, 62-210, 62-212.400 (EU 002 only), 62-213, 62-296.320, 62-297.310, F.A.C.)	001, 002

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.]

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 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.]

FW4. Unconfined Particulate Matter. No person shall cause, let, permit, suffer or allow the emissions of unconfined particulate matter from any activity, including vehicular movement; transportation of materials; construction; alteration; demolition or wrecking; or industrially related activities such as loading, unloading, storing or handling; without taking reasonable precautions to prevent such emissions. Reasonable precautions to prevent emissions of unconfined particulate matter at this facility include:

- a. Paving and maintenance of roads, parking areas and yards.
- b. Application of water or chemicals to control emissions from such activities as demolition of buildings, grading roads, construction, and land clearing.
- c. Application of asphalt, water, oil, chemicals or other dust suppressants to unpaved roads, yards, open stock piles and similar emissions units.

Condition FW4. Continued:

- d. Removal of particulate matter from roads and other paved areas under the control of the permittee of the emissions unit to prevent re-entrainment, and from buildings or work areas to prevent particulate matter from becoming airborne.
- e. Landscaping or planting of vegetation.
- f. Use of hoods, fans, filters, and similar equipment to contain, capture and/or vent particulate matter.
- g. Confining abrasive blasting where possible.
- h. Enclosure or covering of conveyor systems.

[Rule 62-296.320(4)(c)3, F.A.C.]

FW5. 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.

Nothing was deemed necessary and ordered at this time.

[Rule 62-296.320(1), F.A.C.]

Annual Reports and Fees

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

FW6. Annual Operating Report. The permittee shall submit an annual report that summarizes the actual operating rates and emissions from this facility. Annual operating reports shall be submitted to the Compliance Authority by April 1st of each year.

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

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

[Rule 62-213.205, F.A.C.]

FW8. Annual Statement of Compliance. The permittee shall submit an annual statement of compliance to the compliance authority at the address shown on the cover of this

SECTION II. FACILITY-WIDE CONDITIONS

permit within 60 days after the end of each calendar year during which the Title V permit was effective.

[Rules 62-213.440(3)(a)2. & 3. and (3)(b), F.A.C.]

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

- a. Submit its Risk Management Plan (RMP) to the Chemical Emergency Preparedness and Prevention Office (CEPPO) RMP Reporting Center. Any Risk Management Plans, original submittals, revisions or updates to submittals, should be sent to: RMP Reporting Center, Post Office Box 10162, Fairfax, VA 22038, Telephone: (703) 227-7650.
- b. Submit to the permitting authority Title V certification forms or a compliance schedule in accordance with Rule 62-213.440(2), F.A.C.

[40 CFR 68]

FW10. Monitoring Reports. The permittee shall submit reports of any required monitoring at least every six (6) months. All instances of deviations from permit requirements must be clearly identified in such reports.

[Rule 62-213.440(1)(b)3.a., F.A.C.]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection A. Emissions Unit 001

The Conditions in this subsection apply to the following emissions unit:

EU No.	Brief Description
001	Internal Combustion Engine No. 1601, 1602, 1603, 1604, and 1605

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): This emissions unit is subject to 40 CFR 63, Subpart ZZZZ - NESHAPS for Stationary Reciprocating Internal Combustion Engines, and 40 CFR 63, Subpart A. 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 nor the requirements of 40 CFR 63, Subpart A, General Requirements.}

Essential Potential to Emit (PTE) Parameters

A.1. Heat Input: The maximum heat input shall not exceed 131,400 MMBTU per rolling 12-month period for each engine (1601, 1602, 1603, 1604, and 1605.) Rolling 12-month totals shall be maintained and made available on site for a minimum of five years for Department inspection. 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}

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C., Initial Air Operation Permit 0070012-001-AO - 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: The hours of operation are not restricted, each engine is allowed to operate continuously, i.e., 8,760 hours/year.

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection A. Emissions Unit 001

[Rule 62-210.200(PTE), F.A.C.]

Recordkeeping and Reporting Requirements

A.4. Records: Records shall be maintained of the amount of natural gas fired.

[Operating permit 0070012-001-AO]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection B. Emissions Unit 002

The Conditions in this subsection apply to the following emissions unit:

EU No.	Brief Description
002	Internal Combustion Engine No. 1606

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}; This emissions unit is subject to 40 CFR 63, Subpart ZZZZ - NESHAPS for Stationary Reciprocating Internal Combustion Engines. In accordance with 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 nor the requirements of 40 CFR 63, Subpart A, General Requirements.}

Essential Potential to Emit (PTE) Parameters

B.1. Permitted Capacity: 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.

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; and Comments received from FGT on September 29, 2008]

B.2. Heat Input: The maximum allowable heat input shall not exceed 34.85 million BTU per hour for this engine.

[Permit No. AC04-189454 (September 17, 1993), 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.

[Permit No. AC04-189454 (September 17, 1993), Rule 62-210.200(PTE), F.A.C.; Air Operation Permit AO04-232243]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection B. Emissions Unit 002

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		Emissions Factor
	Lb/hr	Ton/yr	
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 ^{NOTE (2)}
Sulfur Dioxide	0.80	3.48	7.80 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/PM₁₀ emissions are minimized by good combustion design with the firing of natural gas as the exclusive fuel.

^{NOTE (2)} Compliance with VOC emissions limit assumed if CO allowable emissions rate is achieved.

[Permit No. AC04-189454 (September 17, 1993), Permit Application dated May 30, 2013 Permit No. 0070012-013-AV]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection B. Emissions Unit 002

{Permitting Note: This standard supersedes the previously specified permit limits for PM (TSP and PM₁₀) 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

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.7. Annual Testing: Compliance with Carbon Monoxide (CO), Nitrogen Oxides (NO_x), VOC, and Sulfur Dioxide (SO₂) emissions limits stated in **Specific Condition B.6.** shall be demonstrated on an annual basis during the federal fiscal year (October 1st to September 30th).

Testing. VOC emissions limit: An annual 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.

Testing. PM/PM₁₀ emissions limit: 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.
[Permit No. AC04-189454 (September 17, 1993)]

B.8. SO₂ Emissions: In lieu of an annual test stack test 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 and Permit No. Permit No. 0070012-013-AV]

B.9. Visible Emissions Test EU 002: A visible emissions test shall be conducted every 5 years prior to obtaining a renewed operation permit.

[Rules 62-297.310(7) a 3, F.A.C. and 62-4.070(3)]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection B. Emissions Unit 002

B.10. Test Methods: Compliance with the NO_x, SO₂, 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.:

Test Method	Description
Method 1	Sample and Velocity Traverse
Method 2	Volumetric Flow Rate
Method 3A	Gas Analysis
Method 5	Determination of Particulate Matter Emissions From Stationary Sources
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 Determination of Carbon Monoxide Emissions From Stationary Sources (Instrumental Analyzer Procedure)
Method 25A	Determination of Total Gaseous Organic Concentration using a Flame Ionization Analyzer

[Construction Permit AC04-189454]

Notification Recordkeeping and Reporting Requirements

B.11. 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.]

B.12. 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.]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection C. Emissions Unit 003

The Conditions in this subsection apply to the following emissions unit:

EU No.	Brief Description
003	Combustion turbine No. 1607

{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. 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.]

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.

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C., Air Permit No. 0070012-011-AC]

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.

[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]

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.

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection C. Emissions Unit 003

C.4. 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 60.333
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 SO₂ 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.
- 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 SO₂. Mass emission rates for SO₂ 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

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection C. Emissions Unit 003

compared to the equivalent maximum emissions above. For tests conducted below 59° F, measured

Specific Condition C4 continued:

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/PM₁₀ 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 PM₁₀) 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 SO₂ in all prior Air Construction Permits and all prior Title V Permits concerning EU003.}

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

- C.5. 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]

Monitoring of Operations

C.6. RESERVED

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection C. Emissions Unit 003

Test Methods and Procedures

- C.7. Test Methods:** Compliance with the NO_x, SO₂, CO, Visible emissions, and VOC standards shall be determined by the following reference methods as described in 40 CFR 60, Appendix A.

Test Method	Description
Method 1- 4	Sample and Velocity Traverse flow rate, Gas analysis and Moisture content
Method 7E, 3 or 3a	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 Determination of Carbon Monoxide Emissions From Stationary Sources (Instrumental Analyzer Procedure)
Method 20	Determination of Nitrogen Oxides, Sulfur Dioxide and Diluent Emissions from Gas Turbines

[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]

Testing Requirements

- C.8. Annual Testing:** Compliance with Carbon Monoxide (CO) and Nitrogen Oxides (NO_x), emissions limits stated in **Specific Condition C.4.** shall be demonstrated on an annual basis during the federal fiscal year (October 1st to September 30th).

[Rule 62-297.310(7)(a)4, F.A.C.; Air Permit No. 0070012-004-AC Permit Application received May 30th, 2013]

- C.9. Testing:** CO and NO_x emissions shall be tested concurrently at permitted capacity.

[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. NO_x 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

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection C. Emissions Unit 003

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.11. SO₂ 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.

[Rule 62-297.310(7)(a)4, F.A.C. and to avoid Rule 62-212.400, F.A.C.; 0070012-004-AC]

- C.12. Visible Emissions Test EU 003:** A visible emissions test shall be conducted every 5 years prior to obtaining a renewed operation permit.

[Rules 62-297.310(7) a 3, F.A.C. and 62-4.070(3)]

Recordkeeping Reporting and Notification Requirements

- C.13. Record keeping:** 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.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.]

- C.15. 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]

Common Testing Requirements

- C.16. 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.

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection C. Emissions Unit 003

[Rule 62-297.310, F.A.C.]

- C.17. 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.

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SECTION IV. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection D. Emissions Unit 004

The Conditions in this subsection apply to the following emissions unit:

EU No.	Brief Description
004	Waukesha Natural Gas 40 MMBTU generator Model No. H24GL

This permit subsection addresses "existing" stationary SI RICE with a site rating of more than 500 HP that is located at a major source of HAP. A stationary RICE is existing if it commenced construction or reconstruction before December 19, 2002.

{Permitting note(s): This emergency emissions unit is subject to 40 CFR 63, Subpart ZZZZ - NESHAPS for Stationary Reciprocating Internal Combustion Engines. In accordance with 40 CFR 63.6590(b)(3)(iii), 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 nor the requirements of 40 CFR 63, Subpart A, General Requirements.} 40 CFR 63.6590(b)(3)(iii) states that "Existing emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions that does not operate or is not contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in 40 CFR 63.6640(f)(2)(ii) and (iii)."

D.1 NESHAP, 40 CFR 63 Subpart ZZZZ Applicability: This natural gas engine is classified as existing, stationary Reciprocating Internal Combustion Engines (RICE). This engine is classified as Emergency stationary RICE.

[40 CFR 63.6675(def); 40 CFR 63.6585(a) & (b); 40 CFR 60.6590(a)(1)(i)]

Performance Restrictions

D.2. Authorized Fuel: Natural gas fuel is the only authorized fuel for this engine.

[Applicant Information dated May 30, 2013]

D.3. Method of Operation - Emergency Stationary RICE: The emergency stationary RICE must be operated according to the requirements in paragraphs (i) through (iii) of this condition. In order for the engine to be considered emergency stationary RICE, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (i) through (iii) of this section, is prohibited. If the engine is not operated according to the requirements in paragraphs (i) through (iii) of this section, the engine will not be considered an emergency engine under 40 CFR 63 Subpart ZZZZ and must meet all requirements for non-emergency engines.

SECTION IV. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection D. Emissions Unit 004

- (i) There is no time limit on the use of emergency stationary RICE in emergency situations.
- (ii) Emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year.
- (iii) The emergency stationary RICE may be operated up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity; except that owners and operators may operate the emergency engine for a maximum of 15 hours per year as part of a demand response program if the regional transmission organization or equivalent balancing authority and transmission operator has determined there are emergency conditions that could lead to a potential electrical blackout, such as unusually low frequency, equipment overload, capacity or energy deficiency, or unacceptable voltage level. The engine may not be operated for more than 30 minutes prior to the time when the emergency condition is expected to occur, and the engine operation must be terminated immediately after the facility is notified that the emergency condition is no longer imminent. The 15 hours per year of demand response operation are counted as part of the 50 hours of operation per year provided for non-emergency situations. The supply of emergency power to another entity or entities pursuant to financial arrangement is not limited by this paragraph (iii), as long as the power provided by the financial arrangement is limited to emergency power.

[40 CFR 63.6640(f)(1)-(f)(3)]

SECTION IV APPENDICES.

The Following Appendices Are Enforceable Parts of This Permit:

Appendix A, Glossary.
Appendix I, List of Insignificant Emissions Units and/or Activities.
Appendix NESHAP, 40 CFR 63 Subpart A – General Provisions.
Appendix NESHAP, 40 CFR 63 Subpart ZZZZ
Appendix NSPS, 40 CFR 60 Subpart A – General Provisions.
Appendix NSPS, 40 CFR 60, Subpart GG, Standards of Performance for Gas Turbines
Appendix RR, Facility-wide Reporting Requirements.
Appendix TR, Facility-wide Testing Requirements.
Appendix TV, Title V General Conditions.

REFERENCED ATTACHMENTS.

The Following Appendices Are Attachments Are Included for Applicant Convenience

Appendix H-1, Permit History

Table 1, Summary of Air Pollutant Standards and Terms.

Table 2, Summary of Compliance Requirements.