Florida Gas Transmission Company
Compressor Station No. 12

Facility ID No.: 1130037
Santa Rosa County

Title V Air Operation Permit Renewal

Permit No.: 1130037-016-AV
Renewal of Title V Air Operation Permit No.: 1130037-010-AV

Permitting and Compliance Authority:

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

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Title V Air Operation Permit Renewal

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DRAFT PERMIT

PERMITTEE:
Florida Gas Transmission Company
2405 Lucien Way, Suite 200
Maitland, Florida 32751-7047

Permit No. 1130037-016-AV
Santa Rosa Compressor Station No. 12
Facility Id No. 1130037
Title V Air Operation Permit Renewal

The purpose of this permit is to renew the Title V air operation permit for the above referenced facility. The existing Compressor Station No. 12 is located in Santa Rosa County at 13100 Munson Highway, Milton, Florida. UTM Coordinates: Zone 16, 510.8 km East and 3419.0 km North; and, Latitude: 30° 54' 42" North and Longitude: 86° 53' 12" West.

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

Effective Date:
Renewal Application Due Date: Exp. DATE -225
Expiration Date: Eff. DATE + 5 years

(Draft)

_____

J. Charles Harp
Program Administrator
Waste Management/Air Resources
Northwest District

JCH/ha/c

Subsection A. Facility Description.

This facility, Florida Gas Transmission Company, Compressor Station No. 12, is part of a natural gas transmission pipeline system from source wells in Texas and Louisiana for delivery throughout Florida. The facility consists of six natural gas-fired reciprocating internal combustion compressor engines, three natural gas-fired internal combustion turbine compressor engines, miscellaneous support equipment and two new emergency generator engines.

Emissions Units (EU) 001 through EU003 (FGTC Engines 1201 - 1203) are 2,000 brake horsepower (bhp), four-stroke lean burn (4SLB), Cooper-Bessemer Model LS-8-SG, spark-ignition, reciprocating internal combustion engines (RICE) installed in 1958. Nitrogen oxides (NOx) and carbon monoxide (CO) are emitted uncontrolled through raised stacks.

EU004 and EU005 (Engines 1204 and 1205) are also 2,000 bhp, four-stroke lean burn, Cooper-Bessemer Model LS-8-SG, spark-ignition, RICE that have improved turbochargers, providing more air at higher pressures to reduce NOx emissions, and have jet cell pre-combustion technology and catalytic converters to reduce CO emissions. EU006 (engine No. 1206) is a 4,100 bhp, two-stroke lean burn (2SLB), Dresser-Rand, Model TCV-10, spark-ignition, RICE which incorporates lean burn technology to minimize NOx emissions and is subject to a Best Available Control Technology (BACT) determination of 2 g/bhp-hr NOx established in accordance with Rule 62-212.400, F.A.C., Prevention of Significant Deterioration (PSD). EU008 (Engine 1207) is a 15,000 bhp Solar Mars 100 T-15000S, internal combustion turbine compressor engine that incorporates dry, low-NOx combustion technology, and was modified to include jet cell technology. EU010 (Engine 1208) is a 15,700 bhp Nuovo Pignone Model PGT-10B, internal combustion turbine compressor engine that also incorporates dry, low-NOx combustion technology. EU011 (Engine 1209) is a 20,500 bhp Solar Titan Model 130-20502S, internal combustion turbine compressor engine which uses lean burn pre-mix combustion technology to minimize the formation of nitrogen oxides. Compliance for FGTC Engines 1204 – 1209 is assured by annual testing using EPA methodology for NOx, CO and opacity, by submission of an annual operation report, and by submission of an annual certification of compliance. Compliance with the SO_2 standard is demonstrated by fuel monitoring. Compliance with the VOC standards is demonstrated by compliance with the CO standards.

The emergency generator RICE in EU012 (FGTC GEN04 and GEN05) are Generac Model SG300 four-stroke, lean burn, natural gas-fired, 454 bhp, spark-ignition, reciprocating internal combustion engines that were ordered on July 21, 2010, and manufactured after January 1, 2009. These engines are subject to applicable requirements in NSPS subparts A and JJJJ of 40 CFR 60, because they are certified engines that were manufactured after January 1, 2009. This emissions unit qualifies as an insignificant emission unit pursuant to Rule 62-210.300(3)(a)35., F.A.C.; however, it is subject to recordkeeping requirements pursuant to 40 CFR 60.4243(b)(2)(i), and is included in this permit as regulated emission unit because it is subject to 40 CFR 60 subpart JJJJ. The engines coupled with the generators utilize a non-selective catalytic reduction or three-way catalyst as their primary control technology. These emergency generator engines will comply with the manufacturer's certification.

Airborne Contaminant Emitted	FAC Rule	Estimated Emissions		Allowable Emissions	
		lbs/hr	T/yr	lb/hr	T/yr
PM	AC permit	N/A	15.9	N/A	N/A
SO2	N/A	N/A	62.6	N/A	N/A
VOC	N/A	N/A	82.7	N/A	N/A
NOx	N/A	N/A	1074.2	N/A	N/A
CO	N/A	N/A	339.9	N/A	N/A
Objectionable Odors	62-296.320(2)	N/A	N/A	None allowed off plant property	
VE	AC permit	N/A	N/A	Not more than 10% opacity for EU 004, 005, 006, 008, 010 and 011	

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

Subsection B. Summary of Emissions Units.

EU No.	Brief Description
001	FGTC Engine 1201: Cooper-Bessemer Model LS-8-SG reciprocating compressor engine rated at 2000 bhp
002	FGTC Engine 1202: Cooper-Bessemer Model LS-8-SG reciprocating compressor engine rated at 2000 bhp
003	FGTC Engine 1203: Cooper-Bessemer Model LS-8-SG reciprocating compressor engine rated at 2000 bhp
004	FGTC Engine 1204: Cooper-Bessemer Model LS-8-SG reciprocating compressor engine rated at 2000 bhp
005	FGTC Engine 1205: Cooper-Bessemer Model LS-8-SG reciprocating compressor engine rated at 2000 bhp
006	FGTC Engine 1206: Dresser-Rand reciprocating compressor engine rated at 4100 bhp
008	FGTC Engine 1207: Solar combustion turbine compressor engine rated at 15,000 bhp
009	Miscellaneous Support Equipment: existing FGTC GEN03 (637 bhp), 1 MMBtu/hr gas air compressor engine, lube oil storage tanks, used oil storage tanks and blowdown stacks, and one 500 gallon oily water tank
010	FGTC Engine 1208: Nuovo Pignone combustion turbine compressor engine rated at 15,700 bhp
011	FGTC Engine 1209: New Solar Titan combustion turbine compressor engine rated at 20,500 bhp
012	Two natural gas-fired Generac Model No. SG300 emergency generator reciprocating engines FGTC GEN04 (454 bhp) and FGTC GEN05 (454 bhp)

Subsection C. Applicable Regulations.

Based on the renewal application received November 9, 2012, this facility is a major source of hazardous air pollutants (HAP). Because this facility operates stationary reciprocating internal combustion engines, it is subject to regulation under 40 CFR 63 subpart ZZZZ, - National Emissions Standards For Hazardous Air Pollutants For Stationary Reciprocating Internal Combustion Engines. However, since the engines meet the subpart ZZZZ definition of "existing Units," there are no unit specific applicable requirements that must be met pursuant to this rule at this time. The existing facility is 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	008, 010, 011, 012
40 CFR 60, Subpart GG	008, 010
40 CFR 60, Subpart JJJJ	012
40 CFR 60, Subpart KKKK	011
40 CFR 63, Subpart YYYY	008, 010, 011
40 CFR 63, Subpart ZZZZ	001 - 006, 012
62-212.400, F.A.C. - Prevention of Significant Deterioration	Facility
62-4, F.A.C. - Permits	Facility
62-204.800, F.A.C. – Air Pollution Control – General Provisions	Facility
62-210, F.A.C. – Stationary Sources – General Provisions	Facility
62-212, F.A.C. – Stationary Sources – Preconstruction Review	Facility
62-213, F.A.C. – Operation Permits for Major Sources of Air Pollution	Facility

62-296, F.A.C. – Stationary Sources – Emissions Standards	Facility
62-297, F.A.C. – Stationary Sources – Emissions Monitoring	Facility

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

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

Emissions and Controls

FW2. Not federally Enforceable. Objectionable Odor Prohibited. No person shall cause, suffer, allow or permit the discharge of air pollutants, which cause or contribute to an objectionable odor. An "objectionable odor" means any odor present in the outdoor atmosphere which by itself or in combination with other odors, is or may be harmful or injurious to human health or welfare, which unreasonably interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance. [Rule 62-296.320(2) and 62-210.200(Definitions), F.A.C.]

FW3. General Volatile Organic Compounds (VOC) Emissions or Organic Solvents (OS) Emissions. The permittee shall allow no person to store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds or organic solvents without applying known and existing vapor emission control devices or systems deemed-necessary and ordered by the Department. *Nothing is deemed necessary and ordered at this time.* [Rule 62-296.320(1), F.A.C.]
{Permitting Note: Nothing is deemed necessary and ordered at this time.}

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

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

a. Chemical or water application to unpaved roads and yard areas;
b. Paving and maintenance of roads, parking areas and yards;
c. Landscaping or planting of vegetation; and
d. Other techniques, as necessary.

[Rule 62-296.320(4)(c), F.A.C., and Application 1130005-016-AV]

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. A copy of the form and instructions may be obtained electronically at http://www.dep.state.fl.us/air/rules/forms/aor.htm. If the report is submitted using the Department's electronic annual operating report software, there is no requirement to submit a copy to any DEP or local air program office. [Rule 62-210.370(3), F.A.C.]

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

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

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

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

[40 CFR 68]

FW10. 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.]

FW11. Actual Emissions Reporting: Permit No. 1130037-013-AC was based on an analysis that compared baseline actual emissions with projected actual emissions and avoided the requirements of subsection 62-212.400(4) through (12), F.A.C. for several pollutants. Therefore, pursuant to Rule 62-212.300(1)(e), F.A.C., the permittee is subject to the following monitoring, reporting and recordkeeping provisions.

a. The permittee shall monitor the emissions of any PSD pollutant that the Department identifies could increase as a result of the construction or modification and that is emitted by any emissions unit that could be affected; and, using the most reliable information available, calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of ten years following resumption of regular operations after the change. Emissions shall be computed in accordance with the provisions in Rule 62-210.370, F.A.C.

b. The permittee shall report to the Department within 60 days after the end of each calendar year during the ten-year period setting out the unit's annual emissions during the calendar year that preceded submission of the report. The report shall contain the following:
   1) The name, address and telephone number of the owner or operator of the major stationary source;
   2) The annual emissions as calculated pursuant to the provisions of 62-210.370, F.A.C.;
   3) If the emissions differ from the preconstruction projection, an explanation as to why there is a difference; and
   4) Any other information that the owner or operator wishes to include in the report.

c. The information required to be documented and maintained pursuant to subparagraphs 62-212.300(1)(e)1 and 2, F.A.C., shall be submitted to the Department, which shall make it available for review to the general public.

For project 1130037-013-AC, the Department requires the annual reporting of actual nitrogen oxide emissions for the following units:

011 Solar Titan 130-20502S Gas Combustion Turbine No. 1209
012 Emergency Generators FGTC GEN04 and FGTC GEN05

[Application 1130037-013-AC; Rules 62-212.300(1)(e) and 62-210.370, F.A.C.]

Section III. Emissions Unit(s) and Conditions.

Subsection A. This section addresses the following emissions units.

EU No.	Brief Description
001	Natural Gas Fired Reciprocating Internal Combustion Engine 1201
002	Natural Gas Fired Reciprocating Internal Combustion Engine 1202
003	Natural Gas Fired Reciprocating Internal Combustion Engine 1203

These natural gas-fired reciprocating internal combustion engines, manufactured by Cooper-Bessemer (Model LS-8-SG), are four-stroke, lean burn (4SLB), spark-ignition RICE installed in 1958. The engines are fired by pipeline natural gas and each is rated at 2,000 bhp with a maximum heat input of 15 MMBtu/hr. NOx and CO are emitted uncontrolled through raised stacks. These engines are subject to 40 CFR 63 subpart ZZZZ. However, pursuant to 40 CFR 63.6590(b)(3)(ii), existing 4SLB engines with a site rating greater than 500 Hp located at major HAP sources do not have to meet the requirements of 40 CFR 63 subparts A or ZZZZ, and are not required to submit an initial notification.

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

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. For compliance testing purposes, the maximum heat input rate shall not exceed 15 million Btu per hour for each engine. [Rules 62-4.160(2), 62-4.070(3) and 62-210.200(PTE), F.A.C.; Permit No. 1130037-004-AV]

{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.}

A.2. Hours of Operation. The engines in these emissions units are allowed to operate continuously, i.e., 8,760 hours per year. [Rules 62-4.160(2), 62-4.070(3) and 62-210.200(PTE), F.A.C.]

Recordkeeping and Reporting Requirements

A.3. Records of Heat Input. Rolling 12-month totals of heat input shall be maintained for each engine and made available on site for a minimum of five years for Department inspection. [Rules 62-4.160(2), 62-4.070(3) and 62-210.200(PTE), F.A.C.; Permit No. 1130037-004-AV]

Section III. Emissions Unit(s) and Conditions.

Subsection B. This section addresses the following emissions units.

EU No.	Brief Description
004	Natural Gas Fired Reciprocating Internal Combustion Engine 1204
005	Natural Gas Fired Reciprocating Internal Combustion Engine 1205

These engines are natural gas-fired, four-stroke lean burn, spark-ignition RICE manufactured by Cooper-Bessemer Model LS-8-SG. Engine 1204 was installed in 1966 and Engine 1205 in 1968. These engines are rated at 2,000 bhp and have a heat input rating of 16.5 MMBtu/hr.

Since these engines were modified to reduce and offset emissions to avoid PSD/NSR, the basis for the applicable requirements is pursuant to Rule 62-212.400, F.A.C. These emissions units are subject to 40 CFR 63 subpart ZZZZ. However, based on rule 63.6590(b)(3) the units do not have to meet the requirements of 40 CFR 63 subparts ZZZZ or A. In addition, no initial notification is required. Any future reconstruction (defined in 40 CFR 63.2) or installation of new engines may result in the units becoming subject to additional Federal rules.

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

Essential Potential to Emit (PTE) Parameters

B.1. Permitted Capacity. The maximum heat input rate to each engine shall not exceed 16.5 MMBtu per hour while producing approximately 2,000 bhp, based on a natural gas higher heating value (HHV) of 1,040 Btu/scf. [Rules 62-4.160(2), 62-4.070(3) and 62-210.200(PTE), F.A.C., and Permits 1130037-003-AC and 1130037-007-AC]

{Permitting Note: The maximum heat input rates are based on the manufacturer's equipment specifications for each reciprocating engine. They are included to identify the capacity of each emissions unit for purposes of confirming that tests are conducted within 90% to 100% of the emission unit's rated capacity (or to limit future operation to 110% of the test load, if applicable), to establish appropriate emissions limits, and to aid in determining future rule applicability.}

B.2. Methods of Operation (Fuel). The fuel that is allowed to be burned in these units is pipeline quality natural gas with a maximum of 10 grains sulfur per 100 standard cubic feet of natural gas. Compliance demonstration for the fuel sulfur limit shall be verified with a current, valid purchase contract, tariff sheet or transportation contract for the gaseous fuel. [Rules 62-213.410 and 62-213.440, F.A.C., and Permits 1130037-003-AC and 1130037-007-AC]

B.3. Hours of Operation. The engines in this emissions unit are allowed to operate continuously, i.e., 8,760 hours per year. [Rule 62-4.070(3), 62-210.200(PTE), F.A.C., and Permits 1130037-003-AC and 1130037-007-AC]

B.4. Emissions Unit Operating Rate Limitation After Testing. See the related testing provisions in Appendix TR, Facility-wide Testing Requirements. [Rule 62-297.310(2), F.A.C.]

Emission Limitations and Standards

Unless otherwise specified, the averaging times are based on the specified averaging time of the applicable test method.

B.5. Emissions Standards. The maximum allowable emissions rates are as follows:

Pollutant	Standards	Equivalent Emissions	
		lb/hour	TPY
Nitrogen Oxides	5.4 gram/bhp-hour	23.8	104.3
Carbon Monoxide	0.8 gram/bhp-hour	3.5	15.5
Sulfur Dioxide	10 grains of sulfur/100 scf	0.5	2.0
Visible Emissions	10% opacity, 6 minute average	Not Applicable	
Particulate Matter	Good combustion practices	0.2	0.7
Volatile Organic Compounds	Good combustion practices	0.4	1.9

a. The NOx standard is based on a 3-hour test average as determined EPA Method 7E.
b. The CO standard is based on a 3-hour test average as determined by EPA Method 10.
c. The fuel sulfur specification is based on the maximum limit specified by Federal Energy 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. Compliance by record keeping.
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 are based on data in Table 3.2-2 of AP-42 (Factor: 0.00999 lb/MMBtu). Equivalent maximum VOC emissions are based on test data (Factor: 0.1 gram/bhp-hour). No testing required.
f. Equivalent maximum emissions are based on the maximum expected emissions (or the emissions standard) at permitted capacity and 8,760 hours of operation per year.
g. The emissions standards of this permit ensure that the project does not trigger the PSD preconstruction review requirements of Rule 62-212.400, F.A.C.

[Permits 1130037-003-AC and 1130037-007-AC, and Avoid Rule 62-212.400, F.A.C.]

Excess Emissions

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

B.6. Excess Emissions Allowed. 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.]

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

B.8. Excess Emissions Notification. In case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department or the appropriate Local Program 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.]

Test Methods and Procedures

B.9. 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 (These methods shall be conducted as necessary to support the other test methods.)
7E	Determination of Nitrogen Oxide Emissions from Stationary Sources
9	Visual Determination of the Opacity of Emissions from Stationary Sources
10	Determination of Carbon Monoxide Emissions from Stationary Sources {Note: The method shall be based on a continuous sampling train.}

The above methods are described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department. [Rule 62-297.401, F.A.C.]

B.10. Common Testing Requirements. Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. For each test run, the report shall also indicate the natural gas firing rate (cubic feet per hour), heat input rate (MMBtu per hour), and the power output (bhp). [Rule 62-297.310, F.A.C.]

B.11. Annual Compliance Tests Required. During each federal fiscal year (October 1 to September 30), these emissions units shall be tested to demonstrate compliance with the emissions standards for Nitrogen Oxides and Visible Emissions. Notification of compliance testing and completed test reports may be submitted by electronic mail to nwdair@dep.state.fl.us. [Rule 62-297.310(7), F.A.C., and Permit AC67-189220]

B.12. Compliance Tests Prior To Renewal. Compliance tests shall be performed for CO once every 5 years. CO performance testing shall be conducted once, concurrently with NOx testing, within the 12-month period prior to expiration of this permit. The tests shall occur prior to obtaining a renewed operating permit to demonstrate compliance with the emission limits in Specific Condition: Emissions Standards**.** Notification of compliance testing and completed test reports may be submitted by electronic mail to nwdair@dep.state.fl.us. [Rules 62-210.300(2)(a) and 62-297.310(7)(a), F.A.C., and Permits 1130037-003-AC and 1130037-007-AC]

B.13. Sulfur Dioxide. Emissions shall be calculated based on fuel flow and vendor analysis of fuel sulfur content. Compliance with the SO_2 emissions limit can be determined by calculations based on fuel analysis using ASTM D4084-82, D3246-81, D5504-98, or an approved alternative method. [Rules 62-297.401 and 62-297.440, F.A.C., and Permit 1130037-003-AC]

B.14. PM and VOC. PM and VOC emissions are minimized by good combustion practices. Efficient combustion of clean fuels is indicated by compliance with opacity and CO standards. Testing is not required for PM and VOC. [Rule 62-297.401, F.A.C., and Permit 1130037-003-AC]

Recordkeeping and Reporting Requirements

B.15. Fuel Consumption Reporting. The permittee shall adequately monitor the fuel consumption rate and hours of operation for use in submittal of the required Annual Operating Report (AOR). [Rule 62-4.070(3), F.A.C., and Permit 1130037-003-AC]

B.16. Engine Analysis. During each complete engine analysis performed according to the facility Standard Operating Procedure (SOP); a trained technician shall adjust engine performance as necessary. Engine operation shall not exceed 1440 hours between analyses except under those circumstances outlined in the SOP. These analyses shall be recorded in a permanent log and made available for inspection upon request of the Department. [Rule 62-4.070(3), F.A.C., and Permit 1130037-003-AC]

B.17. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements.

Section III. Emissions Unit(s) and Conditions.

Subsection C. This section addresses the following emissions unit.

EU ID No.	Brief Description
006	Natural Gas Fired Reciprocating Internal Combustion Engine 1206

Engine 1206 is a natural gas-fired, two-stroke lean burn, spark-ignition RICE rated at 4,100 bhp and manufactured by Dresser-Rand, Model TCV-10. This engine incorporates "lean burn" technology to minimize NOx emissions. This engine was initially placed in service in 1991.

This emission unit is subject to 40 CFR 63 subpart ZZZZ - NESHAP for Stationary Reciprocating Internal Combustion Engines. However, based on rule 63.6590(b)(3) the units do not have to meet the requirements of the subpart ZZZZ or subpart A. In addition, no initial notification is required. Any future reconstruction (defined in 40 CFR 63.2) or installation of new engines may result in the unit(s) becoming subject to Federal rules.

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

Essential Potential to Emit (PTE) Parameters

C.1. Permitted Capacity. The maximum heat input rate shall not exceed 36.25 million Btu per hour while producing approximately 4,100 bhp (full speed, full load, 100°F ambient site temperature and an HHV of 1,040 Btu/scf for natural gas). Fluctuations in measured bhp, plus or minus ten percent (± 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 62-4.070(3) and 62-210.200(PTE), F.A.C.; Construction Permit AC57-188869 (PSD-FL-156) issued May 8, 1991 and modified September 17, 1993]

{Permitting Note: The maximum heat input rate is based on the manufacturer's equipment specifications for the reciprocating engine. It is included to identify the capacity of each emissions unit for purposes of confirming that tests are conducted within 90% to 100% of the emission unit's rated capacity (or to limit future operation to 110% of the test load, if applicable), to establish appropriate emissions limits, and to aid in determining future rule applicability.}

C.2.a. Methods of Operation (Fuel Consumption). The maximum natural gas consumption for each engine shall not exceed 34,525 scf per hour.
[Rules 62-4.070(3) and 62-210.200(PTE), F.A.C.; Construction Permit AC57-188869 (PSD-FL-156) issued May 8, 1991 and modified September 17, 1993]

C.2.b. Methods of Operation (Fuel Sulfur Content). The fuel that is allowed to be burned in this unit is pipeline quality natural gas with a maximum of 10 grains sulfur per 100 standard cubic feet.
[Rule 62-210.200(PTE), F.A.C., and Permit AC57-188869 (PSD-FL-156)]

C.3. 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., and Permit AC57-188869 (PSD-FL-156)]

Emission Limitations and Standards

Unless otherwise specified, the averaging times are based on the specified averaging time of the applicable test method.

C.4. Emissions Limitations. Maximum allowable emissions rates are as follows:

Pollutant	Emission Rate	
	lb/hour	Tons/year
Nitrogen Oxides	17.6	77.2
Carbon Monoxide	22.1	96.6
Sulfur Dioxide	0.8	3.5
Opacity	10% opacity, 6 minute average	
PM(TSP)	Minimized by good combustion design with exclusive firing of natural gas.*	
PM(PM10)		
VOC	8.8	38.6

[Permit No. AC57-188869 (PSD-FL-156), and Permit No. 1130037-006-AC]

Excess Emissions

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

C.5. Excess Emissions Allowed. 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.6. Excess Emissions Prohibited. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown, or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]

C.7. Excess Emissions Notification. In case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department or the appropriate Local Program 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.]

Test Methods and Procedures

C.8. 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 (These methods shall be conducted as necessary to support the other test methods.)
6	Determination of Sulfur Dioxide Emissions from Stationary Sources
7E	Determination of Nitrogen Oxide Emissions from Stationary Sources
9	Visual Determination of the Opacity of Emissions from Stationary Sources
10	Determination of Carbon Monoxide Emissions from Stationary Sources {Note: The method shall be based on a continuous sampling train.}

Method	Description of Method and Comments
25A	Method for Determining Gaseous Organic Concentrations (Flame Ionization)

The above methods are described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department. [Rule 62-297.401, F.A.C.]

C.9. Common Testing Requirements. Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]

C.10. Annual Compliance Tests Required. During each federal fiscal year (October 1 to September 30), this emission unit shall be tested to demonstrate compliance with the emissions standards for Nitrogen Oxides, Carbon Monoxide and Visible Emissions. Notification of compliance testing and completed test reports may be submitted by electronic mail to nwdair@dep.state.fl.us. [Rule 62-297.310(7), F.A.C. and Permit AC67-189220]

C.11. Sulfur Dioxide. Compliance with the SO_2 emissions limit can be determined by calculations based on fuel analysis using ASTM D4084-82, D3246-81, D5504-98, or an approved alternative method for sulfur content of gaseous fuels. [Rules 62-297.401 and 62-297.440, F.A.C.]

C.12. Volatile Organic Compounds. VOC emission limits will be assumed provided the CO allowable emission rate is achieved. [Rule 62-297.401, F.A.C.]

C.13. Particulate Matter. PM emissions are minimized by good combustion design with exclusive firing of natural gas. Efficient combustion of clean fuels is indicated by compliance with opacity and CO standards. Testing is not required for PM. [Rule 62-297.401, F.A.C., and Permit 1130037-006-AC]

Recordkeeping and Reporting Requirements

C.14. Records of Fuel Consumption. Records shall be kept of monthly natural gas consumption and shall be averaged to determine hourly consumption. These records shall be maintained on site for a period of five years and shall be made available for Department inspection as necessary.
[Rule 62-210.200(PTE), F.A.C., and Permit AC57-188869 (PSD-FL-156)]

C.15. Records of Fuel Sulfur Content. Records shall be kept of the natural gas fuel sulfur content in units of grains sulfur per 100 standard cubic feet of natural gas. These records shall be maintained on site for a period of five years and shall be made available for Department inspection as necessary.
[Rule 62-210.200(PTE), F.A.C., and Permit AC57-188869 (PSD-FL-156)]

C.16. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements.

Section III. Emissions Unit(s) and Conditions.

Subsection D. This section addresses the following emissions unit.

EU No.	Brief Description
008	Natural Gas Fired Solar Mars 100 Combustion Turbine Compressor Engine 1207

Engine 1207 is a natural gas-fired 15,000 bhp (ISO) Solar Mars 100 T-15000S combustion turbine compressor engine. This engine incorporates lean burn, pre-mix, combustion technology to minimize exhaust NOx emissions. Ancillary equipment includes an automated Solar Turbotronic gas turbine control system, an inlet air filtration system and a rectangular stack (7.5 feet by 8.0 feet) that is 58 feet tall.

This emission unit is subject to 40 CFR 60 subpart GG - Standards of Performance for Stationary Gas Turbines and 40 CFR 63 subpart YYYY - NESHAP for Stationary Combustion Turbines.

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

Essential Potential to Emit (PTE) Parameters

D.1. Permitted Capacity. The maximum heat input rate shall not exceed 124.5 million Btu per hour while producing approximately 15,000 bhp based on a compressor inlet air temperature of 59°F, 100% load and a higher heating value (HHV) of 1,040 Btu per SCF for natural gas. Heat input rates will vary depending upon gas turbine characteristics, load, and ambient conditions.
[Rules 62-4.070(3) and 62-210.200(PTE), F.A.C.]

{Permitting Note: The maximum heat input rate is based on the manufacturer's equipment specifications for the gas turbine. It is included to confirm that tests are conducted within 90% to 100% of the emission unit's rated capacity (or to limit future operation to 110% of the test load, if applicable) to establish appropriate emissions limits, and to aid in determining future rule applicability.}

D.2.a. Methods of Operation (Fuel). The fuel that is allowed to be burned in this unit is pipeline quality natural gas with a maximum of 10 grains sulfur per 100 standard cubic feet. Compliance demonstration for the fuel sulfur limit shall be verified with a current, valid purchase contract, tariff sheet or transportation contract for the gaseous fuel. [Rule 62-213.440, F.A.C., 40 CFR 60.334(h), and Permits 1130037-003-AC and 1130037-007-AC]

D.2.b. Methods of Operation (Load). Except for startup and shutdown, operations below 50% base load are prohibited. [Rule 62-213.440, F.A.C., 40 CFR 60.334(h), and Permits 1130037-003-AC and 1130037-007-AC]

D.3. Hours of Operation. This emissions unit is allowed to operate continuously, i.e., 8,760 hours/year. [Rules 62-4.070(3) and 62-210.200(PTE), F.A.C., and Permits 1130037-003-AC and 1130037-007-AC]

Emission Limitations and Standards

Unless otherwise specified, the averaging times are based on the specified averaging time of the applicable test method.

D.4. Emissions Standards. maximum allowable emissions rates are as follows:

Pollutant	Standards*	Equivalent Emissions	
		lb/hour	TPY
Nitrogen Oxides	25.0 ppmvd @ 15% O_2	11.26	49.3
Carbon Monoxide	50.0 ppmvd @ 15% O_2	13.71	60.1
Sulfur Dioxide	10 grains of sulfur/100 scf	3.42	15.0
Opacity	10% opacity, 6 minute average	Not Applicable	
PM	Good combustion practices	0.82	3.6
VOC	Good combustion practices	0.39	1.7

*Note: These emissions standards are at 100% load and ISO conditions.

a. The NOx standards is based a 3-hour test average as determined by EPA Method 7E or 20.
b. The CO standard is based on a 3-hour test average as determined by EPA Method 10.
c. The fuel sulfur specification is based on the maximum limit specified by Federal Energy 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 are based on vendor data. Equivalent maximum VOC emissions were conservatively assumed to be 10% of the vendor's data for total unburned hydrocarbon. No testing 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 SO2. Mass emission rates for SO2 shall be calculated based on 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. The emissions standards of this permit ensure that the project does not trigger the PSD preconstruction review requirements of Rule 62-212.400, F.A.C.

[Permits 1130037-003-AC and1130037-007-AC, and Avoid Rule 62-212.400, F.A.C.]

Monitoring of Operations

D.5. 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, F.A.C., 40 CFR 60.332 and Permits 1130037-003-AC and 1130037-007-AC]

Test Methods and Procedures

D.6. 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 (These methods shall be conducted as necessary to support the other test methods.)
7E	Determination of Nitrogen Oxide Emissions from Stationary Sources
9	Visual Determination of the Opacity of Emissions from Stationary Sources
10	Determination of Carbon Monoxide Emissions from Stationary Sources {Note: The method shall be based on a continuous sampling train.}
20	Determination of Nitrogen Oxides, Sulfur Dioxide and Diluent Emissions from Stationary Gas Turbines

The above methods are described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department. [Rule 62-297.401, F.A.C.]

D.7. Common Testing Requirements. Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. For each test run, the test report shall also indicate the natural gas firing rate (cubic feet per hour), heat input (MMBtu per hour), the power output (bhp), percent base load, and the inlet compressor temperature. [Rule 62-297.310, F.A.C.]

D.8. Annual Compliance Tests Required. During each federal fiscal year (October 1 to September 30), this emission unit shall be tested to demonstrate compliance with the emissions standards for Nitrogen Oxides, Carbon Monoxide and Visible Emissions. Notification of compliance testing and completed test reports may be submitted by electronic mail to nwdair@dep.state.fl.us. [Rule 62-297.310(7), F.A.C., and Permit AC67-189220]

D.9. Additional Compliance Test Requirements. Performance data shall be adjusted for the appropriate site conditions in accordance with performance curves (Attachment 2) and/or equations on file with the Department. Data, curves and calculations necessary to demonstrate the heat input rate correction at both design and test conditions shall be submitted to the Department with the compliance test report. The attached operating curve showing NOx emissions as a function of inlet air temperature shall be used with the test results to demonstrate compliance. [Rules 62-297.310(2), 62-4.070, F.A.C., 40 CFR 60.335(c)(2) and Permits 1130037-003-AC and 1130037-007-AC]

D.10. Nitrogen Oxides. Since the NOx emission limit specified in Specific Condition: Emissions Standards for NOx is more stringent than the applicable limit in NSPS Subpart GG, compliance with NOx limit in Specific Condition: Emissions Standards for NOx also demonstrates compliance with the NSPS Subpart GG limit. [Rule 62-297.401, F.A.C., Permits 1130037-003-AC and 1130037-007-AC, and Application 1130005-016-AV]

D.11. Carbon Monoxide. CO and NOx performance testing shall be conducted concurrently at the permitted capacity. [Rule 62-297.401, F.A.C., and Permits 1130037-003-AC and 1130037-007-AC]

D.12. Sulfur Dioxide. Emissions shall be calculated based on fuel flow and vendor analysis of fuel sulfur content. Compliance with the SO_2 emissions limit can be determined by calculations based on fuel analysis using ASTM D4084-82, 94, D5504-01, D6228-98 or Gas Processors Association Standard 2377-86. [Rules 62-297.401, 62-297.440, F.A.C., 40CFR60.334(h), and Permits 1130037-003-AC and 1130037-007-AC]

D.13. PM and VOC. PM emissions are minimized by good combustion design with exclusive firing of natural gas. Efficient combustion of clean fuels is indicated by compliance with opacity and CO standards. Testing is not required for PM and VOC. [Permits 1130037-003-AC and 1130037-007-AC, and Avoid Rule 62-212.400, F.A.C.]

Other Requirements

D.14. Component Replacement. 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, 62-4.070(3), (6), and (15) and 62-297.310(7)(b), F.A.C.]

NSPS Conditions

D.15. Applicable portions of 40 CFR 60, Subpart A - General Provisions Requirements and Subpart GG - Standards of Performance for Stationary Gas Turbines, are incorporated and included by reference as conditions of this permit. This includes but is not limited to the following:

a. 40 CFR 60.7, Notification and record keeping;
b. 40 CFR 60.8, Performance tests;
c. 40 CFR 60.11, Compliance with standards and maintenance requirements
d. 40 CFR 60.12, Circumvention
e. 40 CFR 60.13, Monitoring requirements
f. 40 CFR 60.14, Modification
g. 40 CFR 60.17, Incorporations by reference

[Rule 62-204.800, F.A.C., 40 CFR 60 subpart A and Permit 1130037-003-AC]

Section III. Emissions Unit(s) and Conditions.

Subsection E. This section addresses the following emissions unit.

EU ID No.	Brief Description
010	Natural Gas Fired Nuovo Pignone PGT10B Combustion Turbine Compressor Engine 1208

Engine 1208 is a natural gas-fired 15,700 bhp Nuovo Pignone, Model PGT-10B, combustion turbine compressor engine. This engine incorporates dry low-NOx combustion technology to minimize exhaust NOx emissions. Ancillary equipment includes an automated gas turbine control system, an inlet air filtration system, and a 7.6 diameter stack that is 61.5 feet tall.

This emission unit is subject to 40 CFR 60 subpart GG - Standards of Performance for Stationary Gas Turbines and 40 CFR 63 subpart YYYY - NESHAP for Stationary Combustion Turbines.

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

Essential Potential to Emit (PTE) Parameters

E.1. Permitted Capacity. The maximum heat input rate shall not exceed 134.8 million Btu per hour while producing approximately 15,700 bhp based on a compressor inlet air temperature of 59°F, 100% load, and an HHV of 1,040 Btu/scf for natural gas. Heat input rates will vary depending upon gas turbine characteristics, load, and ambient conditions.
[Rules 62-4.070(3) and 62-210.200(PTE), F.A.C., and Permit Nos. 1130037-003-AC and 1130037-008-AC]

{Permitting Note: The maximum heat input rate is based on the manufacturer's equipment specifications for each gas turbine. It is included to confirm that tests are conducted within 90% to 100% of the emission unit's rated capacity (or to limit future operation to 110% of the test load, if applicable) to establish appropriate emissions limits, and to aid in determining future rule applicability.}

E.2.a. Methods of Operation (Fuel). The fuel that is allowed to be burned in this unit is pipeline quality natural gas with a maximum of 10 grains sulfur per 100 standard cubic feet. Compliance demonstration for the fuel sulfur limit shall be verified with a current, valid purchase contract, tariff sheet or transportation contract for the fuel gas. [Rule 62-213.440, F.A.C.; 40 CFR 60.334(h); Permits 1130037-003-AC and 1130037-008-AC]

E.2.b. Methods of Operation (Load). Except for startup and shutdown, operation below 50% base load is prohibited. [Rules 62-4.070(3) and 62-210.200(PTE), F.A.C.; and Permits 1130037-003-AC and 1130037-008-AC]

E.3. Hours of Operation. The hours of operation for this gas turbine are not limited (8,760 hours per year). [Rules 62-4.070(3) and 62-210.200(PTE), F.A.C.; and Permits 1130037-003-AC and 1130037-008-AC]

E.4. Emissions Unit Operating Rate Limitation After Testing. See the related testing provisions in Appendix TR, Facility-wide Testing Requirements. [Rule 62-297.310(2), F.A.C.]

Emission Limitations and Standards
Unless otherwise specified, the averaging times are based on the specified averaging time of the applicable test method.

E.5. Emissions Standards. Maximum allowable emissions rates are as follows:

Pollutant	Standards*	Equivalent Emissions	
		lb/hr	Tons/year
Nitrogen Oxides	25.0 ppmvd @ 15% O_2	14.1	61.8
Carbon Monoxide	21.0 ppmvd @15% O_2	7.03	30.8
Sulfur Dioxide	10 grains of sulfur/100 scf	3.7	16.2
Opacity	10% opacity, 6 minute average	Not Applicable	
PM	Good combustion practices	0.9	3.9
VOC	Good combustion practice at 90–100%	1.5	6.6

*Note: These emissions standards are at 100% load and ISO conditions.

a. The NOx standards are based 3-hour test average as determined EPA Method 7E or 20.
b. The CO standards are based on 3-hour test average as determined by EPA Method 10. Annual CO emissions were based on emissions standards.
c. The fuel sulfur specification is based on the maximum limit specified by Federal Energy 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 are based on data in Table 3.1-2a in AP-42. Equivalent maximum VOC emissions are based on vendor data. Annual VOC emissions were based on the vendor data and restricted hours of operation. No testing required.
f. Equivalent maximum hourly emissions are the maximum expected emissions based on permitted capacity and a compressor inlet air temperature of 59°F. For comparison purposes, the permittee shall provide a reference table with the initial compliance test report of mass emission rates versus the compressor inlet temperatures. Each test report shall include measured mass emission rates for CO, NOx and SO2. Mass emission rates for SO2 shall be calculated based on 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. Equivalent maximum annual emissions are based on 8,760 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 62-212.400, F.A.C.

[Permits 1130037-003-AC and 1130037-008-AC]

Monitoring of Operations

E.6. 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, F.A.C., and Permits 1130037-003-AC and 1130037-008-AC]

Test Methods and Procedures

E.7. 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 (These methods shall be conducted as necessary to support the other test methods.)
7E	Determination of Nitrogen Oxide Emissions from Stationary Sources
9	Visual Determination of the Opacity of Emissions from Stationary Sources
10	Determination of Carbon Monoxide Emissions from Stationary Sources {Note: The method shall be based on a continuous sampling train.}
20	Determination of Nitrogen Oxides, Sulfur Dioxide and Diluent Emissions from Stationary Gas Turbines

The above methods are described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department. [Rule 62-297.401, F.A.C.]

E.8. 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. For each test run, the test report shall also indicate the natural gas firing rate (cubic feet per hour), heat input (MMBtu per hour), the power output (bhp), percent base load, and the inlet compressor temperature. [Rule 62-297.310, F.A.C.]

E.9. Annual Compliance Tests Required. During each federal fiscal year (October 1 to September 30), this emission unit shall be tested to demonstrate compliance with the emissions standards for Nitrogen Oxides, Carbon Monoxide, Visible Emissions. Notification of compliance testing and completed test reports may be submitted by electronic mail to nwdair@dep.state.fl.us. [Rule 62-297.310(7), F.A.C., and Permit AC67-189220]

E.10. Additional Compliance Test Requirements. Performance data shall be adjusted for the appropriate site conditions in accordance with performance curves (Attachment 2) and/or equations on file with the Department. Data, curves and calculations necessary to demonstrate the heat input rate correction at both design and test conditions shall be submitted to the Department with the compliance test report. The attached operating curve showing NOx emissions as a function of inlet air temperature shall be used with the test results to demonstrate compliance. [Rules 62-297.310(2), 62-4.070, F.A.C., 40 CFR 60.335(c)(2), and Permits 1130037-003-AC and 1130037-008-AC]

E.11. Nitrogen Oxides. Since the NOx emission limit specified in Specific Condition: Emissions Standards for NOx is more stringent than the applicable limit in NSPS Subpart GG, compliance with NOx limit in Specific Condition: Emissions Standards for NOx also demonstrates compliance with the NSPS Subpart GG limit. [Rule 62-297.401, F.A.C., and Application 1130005-016-AV]

E.12. Carbon Monoxide. CO and NOx performance testing shall be conducted concurrently at capacity. [Rule 62-297.401, F.A.C., and Permits 1130037-003-AC and 1130037-008-AC]

E.13. Sulfur Dioxide. Emissions shall be calculated based on fuel flow and vendor analysis of fuel sulfur content. Compliance with the SO_2 emissions limit can be determined by calculations based on fuel analysis using ASTM D4084-82, 94, D5504-01, D6228-98 or Gas Processors Association Standard 2377-86, or an approved alternative method. [Rules 62-297.401 and 62-297.440 F.A.C., 40CFR60.334(h), and Permits 1130037-003-AC and 1130037-008-AC]

E.14. PM and VOC. PM emissions are minimized by good combustion design with exclusive firing of natural gas. Efficient combustion of clean fuels is indicated by compliance with opacity and CO standards. Testing is not required for PM and VOC. [Permits 1130037-003-AC and 1130037-007-AC, and Avoid Rule 62-212.400, F.A.C.]

Other Requirements

E.15. Component Replacement. 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, 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, 62-4.070(3), (6), and (15) and 62-297.310(7)(b), F.A.C.]

NSPS Conditions

E.16. Applicable portions of 40 CFR 60, Subpart A - General Provisions Requirements and Subpart GG are incorporated and included by reference as conditions of this permit. This includes but is not limited to the following:

a. 40 CFR 60.7, Notification and record keeping;
b. 40 CFR 60.8, Performance tests;
c. 40 CFR 60.11, Compliance with standards and maintenance requirements
d. 40 CFR 60.12, Circumvention
e. 40 CFR 60.13, Monitoring requirements
f. 40 CFR 60.14, Modification
g. 40 CFR 60.17, Incorporations by reference

[Rule 62-204.800, F.A.C., 40 CFR 60 subpart A and Permit 1130037-003-AC]

Section III. Emissions Unit(s) and Conditions.

Subsection F. This section addresses the following emissions unit.

EU ID No.	Brief Description
011	Natural Gas Fired Solar Titan Model 130-20502S Combustion Turbine Compressor Engine 1209

Engine 1209 is a natural gas-fired 20,500 bhp (ISO) Solar Titan Model 130-20502S, combustion turbine compressor engine. After startup, the unit is intended to operate at or near capacity. This engine incorporates a lean burn pre-mix combustion technology to minimize exhaust NOx emissions. Ancillary equipment includes an automated Solar Turbotronic gas turbine control system, an inlet air filtration system and a stack (7.5 feet by 8.0 feet) that is 55 feet tall. When operating at capacity, exhaust gases exit a the stack with a flow rate of approximately 232,782 acfm at 944° F.

The combustion turbine engine is subject to applicable requirements in NSPS 40 CFR 60 subparts A - General Provisions and KKKK - Stationary Combustion Turbines, and 40 CFR 63 subpart YYYY - NESHAP for Stationary Combustion Turbines.

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

Essential Potential to Emit (PTE) Parameters

F.1. Permitted Capacity. The maximum heat input rate shall not exceed 165 million Btu per hour while producing approximately 20,500 bhp (ISO) based on: a compressor inlet air temperature of 59°F; a compressor inlet pressure of 1 atmosphere; 100% load; and, a higher heating value (HHV) of 1040 Btu/scf for natural gas. Heat input rates will vary depending upon combustion turbine characteristics, load, and ambient conditions. [Rules 62-4.070(3) and 62-210.200(PTE), F.A.C.; and Permit 1130037-013-AC]

F.2.a. Methods of Operation (Fuel). The fuel that is allowed to be burned in this unit is pipeline quality natural gas with a maximum of 10 grains sulfur per 100 standard cubic feet. [Rules 62-4.070(3) and 62-210.200(PTE), F.A.C.; 40 CFR 60 subpart KKKK, and Permit 1130037-011-AC]

F.2.b. Methods of Operation (Load). Except for startup and shutdown, operation below 50% base load is prohibited. [Rules 62-4.070(3) and 62-210.200(PTE), F.A.C., and Permit 1130037-011-AC]

F.3. Hours of Operation. This emissions unit is allowed to operate continuously, i.e., 8,760 hours/year. [Rules 62-4.070(3) and 62-210.200(PTE), F.A.C., and Permit 1130037-011-AC]

F.4. Emissions Unit Operating Rate Limitation After Testing. See the related testing provisions in Appendix TR, Facility-wide Testing Requirements. [Rule 62-297.310(2), F.A.C.]

Emission Limitations and Standards

Unless otherwise specified, the averaging times are based on the specified averaging time of the applicable test method.

{Permitting Note: The CO, NOx, SO2 emissions standards give reasonable assurance that the project is not subject to PSD preconstruction review in accordance with Rule 62-212.400(PSD), F.A.C.}

F.5. Emissions Standards. Maximum allowable emissions rates are as follows:

Pollutant	Emissions Standards [h]	Equivalent Maximum Emissions [i]	
		lb/hour	TPY
CO	25.0 ppmvd @ 15% oxygen [a]	9.0	39.4
NO_X	15.0 ppmvd @ 15% oxygen [b]	8.9	38.9
	25.0 ppmvd @ 15% oxygen [c]	---	---
SO_2	10 grains of sulfur/100 scf [d]	4.5	19.9
	0.060 lb SO_2/MMBtu [e]	---	---
Opacity	10% opacity [f]	Not Applicable	
PM/PM_{10} [g]	None	1.04	4.6
VOC [g]	None	0.5	2.2

a. Compliance with the CO standards shall be demonstrated based on the average of three test runs conducted at permitted capacity as determined by EPA Method 10.

b. Compliance with the state NO_X standard shall be demonstrated based on the average of three test runs conducted at permitted capacity as determined by EPA Method 7E or 20.

c. Compliance with the federal NO_X standard shall be demonstrated as determined EPA Method 7E or 20 and the applicable requirements of 40 CFR 60.4320.

d. To reduce potential SO_2 emissions, the permittee shall comply with a maximum sulfur content of 10 grains of sulfur/100 scf as specified in the current Federal Energy Regulatory Commission (FERC) tariff. Actual fuel sulfur levels are expected to be less than 1 grain per 100 scf.

e. Compliance with the FERC natural gas tariff effectively limits the potential SO_2 emissions to 0.027 lb/MMBtu, which is less than half of federal standard in 40 CFR 60.4330. Actual SO_2 levels are expected to be less than 0.027 lb/MMBtu.

f. The opacity standard is based on a 6-minute average, as determined by EPA Method 9. The opacity standard serves as a surrogate standard to show efficient combustion.

g. Potential PM/PM_{10} and VOC emissions are minimized by the equipment specification of "lean pre-mix combustion design". The CO standard serves as a surrogate standard to show efficient combustion. PM emissions are based on an AP-42 emission factor of 0.0066 lb/MMBtu (Table 3.1-2a) and all PM emissions are assumed to be PM_{10} emissions. VOC emissions are based on available vendor data of 25 ppmvd @ 15% oxygen of unburned hydrocarbons and the assumption that only 10% of these emissions are regulated VOC emissions. No testing or other compliance demonstration is required for PM/PM_{10} and VOC emissions.

h. The permittee shall demonstrate compliance with these standards.

i. The equivalent maximum emissions are provided for informational purposes and are based on: the permitted capacity; a compressor inlet air temperature of 59° F; a compressor inlet pressure of 1 atmosphere; full operation (8760 hours per year); and the permit standards (CO, NO_X, and SO_2) or the maximum expected emissions (PM/PM_{10} and VOC). Each test report shall identify the measured mass emission rates for CO and NO_X. The report shall estimate the SO_2 mass emission rate based on the current typical fuel sulfur content and actual natural gas firing rate.

[Rules 62-4.070(3) and 62-212.400(12), F.A.C.; 40 CFR 60.4320 and 40 CFR 60.4330, and Permits 1130037-011-AC and 1130037-013-AC]

Monitoring of Operations

F.6. Operational Data. Using the automated combustion turbine control system, the permittee shall monitor and record heat input (MMBtu), power output (bhp) and hours of operation for the combustion turbine. Operational information shall be summarized and reported with the required Annual Operating Report. [Rule 62-4.070(3), F.A.C.]

Test Methods and Procedures

F.7. 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 (These methods shall be conducted as necessary to support the other test methods.)
7E	Determination of Nitrogen Oxide Emissions from Stationary Sources
9	Visual Determination of the Opacity of Emissions from Stationary Sources
10	Determination of Carbon Monoxide Emissions from Stationary Sources {Note: The method shall be based on a continuous sampling train.}
19	Determination of Sulfur Dioxide Removal Efficiency and Particulate Matter, Sulfur Dioxide, and Nitrogen Oxides Emission Rates (Optional F-factor method may be used to determine flow rate and gas analysis to calculate mass emissions in lieu of Methods 1-4.)
20	Determination of Nitrogen Oxides, Sulfur Dioxide and Diluent Emissions from Stationary Gas Turbines

The above methods are described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department. [Rule 62-297.401, F.A.C.]

F.8. 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, and specified in NSPS Subpart KKKK as applicable. For each test run, the report shall identify the natural gas firing rate (cubic feet per hour), the heat input rate (MMBtu per hour), the power output (bhp), the percent of base load, and the compressor inlet temperature. [Rule 62-297.310, F.A.C.]

F.9. Annual Compliance Tests Required. During each federal fiscal year (October 1 to September 30), this emission unit shall be tested to demonstrate compliance with the emissions standards for Carbon Monoxide, Nitrogen Oxides and Visible Emissions. If the turbine's NOx emissions exceed 75% of the applicable NSPS NO_X standard on the previous performance test, the subsequent compliance test shall be conducted no more than 14 calendar months following the previous performance test. CO and NO_X emissions shall be tested concurrently at permitted capacity. Actual SO_2 emissions shall be reported based on the current typical fuel sulfur content and actual natural gas firing rate for each test run. Notification of compliance testing and completed test reports may be submitted by electronic mail to nwdair@dep.state.fl.us. [Rules 62-4.070(3) and 62-297.310(7)(a)4, F.A.C.; and 40 CFR 60.4400]

F.10. Additional Compliance Test Requirements. Performance data shall be adjusted for the appropriate site conditions in accordance with performance curves (Attachment 2) and/or equations on file with the Department. Data, curves and calculations necessary to demonstrate the heat input rate correction at both design and test

conditions shall be submitted to the Department with the compliance test report. The attached operating curve showing NOx emissions as a function of inlet air temperature shall be used with the test results to demonstrate compliance. [Rule 62-297.310(7)(a)9, F.A.C.; and 40 CFR 60.7, 60.8 and 60.4400]

Other Requirements

F.11. Component Replacements. For the replacement of combustion 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 combustion 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 combustion 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. If the proposed test schedule must be changed due to valid issues with equipment shakedown or test team schedules, the Compliance Authority may accept a shorter notice. The permittee shall comply with all permit requirements for test notification, test methods, test procedures, and reporting. [Rules 62-4.130, 62-4.070(3), (6), and (15) and 62-297.310(7)(b), F.A.C.].

[Rules 62-4.130, 62-4.070(3), (6), and (15) and 62-297.310(7)(b), F.A.C.]

Recordkeeping and Reporting Requirements

F.12. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements.

Applicable Federal Regulations

F.13. NSPS Subpart KKKK. The combustion turbine is subject to applicable requirements in NSPS subparts A (General Provisions) and KKKK (Stationary Combustion Turbines) of 40 CFR 60.

F.14. NESHAP Subpart YYYY. The combustion turbine is subject to applicable requirements in NESHAP subparts A (General Provisions) and YYYY (Stationary Combustion Turbines) of 40 CFR 63. However, subpart YYYY has been stayed by EPA until further notice. [40 CFR 63.6095(d) *Stay of standards for gas-fired subcategories*]

Section III. Emissions Unit(s) and Conditions.

Subsection G. This section addresses the following emissions unit.

EU No.	Emission Unit Description
012	Two natural gas-fired Generac Model No. SG300 emergency generator reciprocating engines FGTC GEN04 (454 bhp) and FGTC GEN05 (454 bhp)

This emissions unit is comprised of two new natural gas-fired 454 bhp reciprocating internal combustion emergency generator engines manufactured by Generac, Model No. SG300. The new engines are four-stroke lean burn (4SLB), spark-ignition engines that were ordered on July 21, 2010 (definition of commence construction according to NSPS subpart JJJJ) and manufactured after January 1, 2009. The engines coupled with the generators will utilize a non-selective catalytic reduction or 3-way catalyst as its primary control technology.

The emergency generator engines are subject to applicable requirements in NESHAP subparts A and ZZZZ. According to 40 CFR 63 subpart ZZZZ {63.6590(c)(6)}, new 4SLB engines with a site rating equal to or less than 500 hp, located at a major source, must meet the requirements of subpart ZZZZ by meeting the requirements of 40 CFR 60 subpart JJJJ. No further requirements apply for such engines under 40 CFR 63 subpart ZZZZ. The emergency generator engines are subject to applicable requirements in NSPS subparts A (General Provisions) and JJJJ (Stationary Spark Internal Combustion Engines) of 40 CFR 60, because the emergency generator engines are certified engines that were manufactured after January 1, 2009, and they must comply with the emission standards in Table 1 to 40 CFR 60 subpart JJJJ for emergency engines greater than 130 hp. This emission unit qualifies as an insignificant emission unit pursuant to Rule 62-210.300(3)(a)35., F.A.C., however, it is included in this permit as a regulated emission unit because it is subject to 40 CFR 60 subpart JJJJ.

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

Essential Potential to Emit (PTE) Parameters

G.1. Methods of Operation (Fuel). The 454 hp emergency generator engines shall be fired exclusively with pipeline natural gas, with the exception of using propane for a maximum of 100 hours per year as an alternative fuel solely during emergency operations, but records must be kept of propane use. [40 CFR 60.4243(e), Rule 62-213.440, F.A.C.; and Permit 1130037-013-AC]

G.2. Methods of Operation.

a. The owner or operator of the emergency generator engines shall operate and maintain the engines and control devices according to the manufacturer's emission-related written instructions. [40 CFR 60.4243(a)(1)]

a. If the certified engine and control device are not operated and maintained according to the manufacturer's emission-related written instructions, the engine will be considered a non-certified engine, and owners or operators of the noncertified engine must to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions and must conduct an initial performance test within 1 year of engine startup to demonstrate compliance, but a subsequent test is not required unless the engine is rebuilt or undergoes major repair or maintenance. [40 CFR 60.4243(a)(2)(ii) and (f)]

G.3. Hours of Operation. Emergency stationary ICE may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the

manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. There is no time limit on the use of emergency stationary ICE in emergency situations. 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 ICE beyond 100 hours per year. Emergency stationary ICE may operate 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. For owners and operators of emergency engines, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as permitted in this section, is prohibited. [40 CFR 60.4243(d) and Rule 62-210.200(PTE), F.A.C., and Permit 1130037-013-AC]

Emission Limitations and Standards

G.4. Emissions Standards. The 454 emergency generator engine shall not exceed the following standards for carbon monoxide (CO), nitrogen oxides (NO_X) and volatile organic compounds (VOC).

Engine type and fuel	Maximum engine power	Manufacture date	Emission standards[a]					
			g/HP-hr			ppmvd at 15% O_2		
			NO_X	CO	VOC[d]	NO_X	CO	VOC[d]
Emergency	HP≥130	1/1/2009	2.0	4.0	1.0	160	540	86

[a]Owners and operators of stationary non-certified SI engines may choose to comply with the emission standards in units of either g/HP-hr or ppmvd at 15 percent O2. A certified engine is not required to conduct a performance test.

[d]When calculating emissions of volatile organic compounds, emissions of formaldehyde should not be included. [40 CFR 60.4243(a)(1) and Table 1 to NSPS subpart JJJJ]

Testing Requirements

G.5. No performance testing of the emergency generator engines is required if the engines are certified by the manufacturer and the engines and control devices are operated and maintained according to the manufacturer's emission-related written instructions. [40 CFR 60.4243(a)(1)].

Recordkeeping and Reporting Requirements

G.6. The following records must be kept for the two 454 hp emergency generator engines:

(a) All notifications submitted to comply with this subpart and all documentation supporting any notification.
(b) Keep a maintenance plan and records of maintenance conducted on the engine.
(c) If the stationary SI internal combustion engine is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR 90, 1048, 1054, and 1060, as applicable.

[40 CFR 60.4245(a) (1), (2) & (3)]

G.7. The engines of the Emergency Generators FGTC GEN04 and FGTC GEN05 are subject to NSPS or NESHAP requirements, and their NOx emissions must be included in the emissions reporting required by Rule 62-212.300(1)(e), F.A.C. (See Facility-wide Condition: Actual Emissions Reporting.) [Application 1130037-013-AC; Rules 62-212.300(1)(e) and 62-210.370, F.A.C.]

Applicable Federal Regulations

G.8. NSPS Subpart JJJJ. The emergency generator engines are subject to applicable requirements in NSPS subparts A (General Provisions) and JJJJ (Stationary Spark Internal Combustion Engines) of 40 CFR 60. The engines are certified engines that were manufactured after January 1, 2009 and must comply with the emission standards in Table 1 to 40 CFR 60 subpart JJJJ for emergency engines greater than 130 hp. [Rules 62-210.300(3)(a).35.g., and 62-204.800(8)(b)80., F.A.C.]

G.9. NESHAP Subpart ZZZZ. The emergency generator engines are subject to applicable requirements in NESHAP subparts A and ZZZZ (Reciprocating Internal Combustion Engines). Pursuant to 40 CFR 63.6590(c)(6) for stationary reciprocating internal combustion engines (RICE) also subject to regulations under 40 CFR Part 60, a four-stroke lean burn stationary RICE with a site rating of less than or equal to 500 bhp must meet the requirements of this part by meeting the requirements of 40 CFR 60 subpart JJJJ for spark ignition engines. No further requirements apply for such engines under 40 CFR 63 subpart ZZZZ. [Rules 210.300(3)(a).35.h., and 62-204.800(10)(b)82., F.A.C.]

Section III. Emissions Unit(s) and Conditions.

Subsection H. This section addresses the following emissions unit

EU No.	Brief Description
Insignificant Emissions Units and Activities	
009	Miscellaneous Support Equipment: existing FGTC GEN03 (637 bhp), 1 MMBtu/hr gas air compressor engine, lube oil storage tanks, used oil storage tanks and blowdown stacks, and one 500 gallon oily water tank

Emissions Unit 009, Miscellaneous Support Equipment, includes fugitive emissions from FGTC GEN03 (637 bhp), 1 MMBtu/hr gas air compressor engine, lube oil storage tanks, used oil storage tanks and blowdown stacks, and one 500-gallon oily water tank.

The engine of the Emergency Generator FGTC GEN03 is not currently subject to NSPS or NESHAP requirements, but its NOx emissions must be included in the emissions reporting required by Rule 62-212.300(1)(e), F.A.C.

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 ICE, Requirements for Internal Combustion Engines.
Appendix RR, Facility-wide Reporting Requirements.
Appendix TR, Facility-wide Testing Requirements.
Appendix TV, Title V General Conditions.
Appendix NSPS, Subpart A – General Provisions.
Appendix NSPS, Subpart GG - Standards of Performance for Stationary Gas Turbines.
Appendix NSPS, Subpart KKKK - Standards of Performance for Stationary Combustion Turbines.
Appendix NSPS, Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines.
Appendix NESHAP, Subpart A – General Provisions.
Appendix NESHAP, Subpart ZZZZ - Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.