

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
NOTICE OF FINAL PERMIT MODIFICATION

In the Matter of an
Application for Permit Modification


Mr. Clayton Roesler
Division Environmental Specialist
Florida Gas Transmission Company
P.O. Box 945100
Maitland, Florida 32794-5100

Combustion Turbine No. 3003
Permit Nos. AC29-228821(A)
FID No. 0570438
Station No. 30, Hillsborough County

Enclosed is Permit Modification Number AC29-228821(A) for re-issuance of construction permit AC29-228821. The re-issuance of this permit is for the amendment of Specific Condition No. 1 for Unit No. 3003, located in Hillsborough County, Florida. This permit modification is issued pursuant to Chapter 403, Florida Statutes.

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

Executed in Tallahassee, Florida.


C.H. Fancy, P.E., Chief
Bureau of Air Regulation

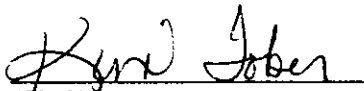
CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF FINAL PERMIT MODIFICATION (including the FINAL permit Modification) was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on 2-12-98 to the person(s) listed:

Mr. Clayton A. Roesler, FGT *
Mr. Bill Thomas, SWD
Mr. Jerry Campbell, HCEPC

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to §120.52(7), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.


(Clerk) 2-12-98
(Date)

FINAL DETERMINATION

FLORIDA GAS TRANSMISSION COMPANY

Modification of Permit No. AC29-228821(A)
Compressor Station No. 30 (Unit No. 3003)
Hillsborough County

An Intent to Issue an air construction permit modification for Florida Gas Transmission Company, Compressor Station No. 30, was distributed on December 22, 1997. The modification was to amend the nitrogen oxides emission limit which had been erroneously given as 42 ppm to the correct value of 150 ppm consistent with the original technical evaluation. This facility is located 2 miles east of State Highway 39 on Griffin Road near Plant City, Hillsborough County, Florida. The Notice of Intent was published in The Tampa Tribune on January 7, 1998. Copies of the modification were available for public inspection at the Hillsborough County Environmental Protection Commission (HCEPC) and the Department offices in Tallahassee and Tampa.

No comments were submitted in response to the public notice.

The final action of the Department will be to issue the permit modification as noted during the public notice period.

P 265 659 293

no green card

US Postal Service

Receipt for Certified Mail

7/98

No Insurance Coverage Provided.

Do not use for International Mail (See reverse)

Sent to		Clayton Koester
Street & Number		567
Post Office, State, & ZIP Code		Marlboro, HI
Postage		\$
Certified Fee		
Special Delivery Fee		
Restricted Delivery Fee		
Return Receipt Showing to Whom & Date Delivered		
Return Receipt Showing to Whom, Date, & Addressee's Address		
TOTAL Postage & Fees		\$
Postmark or Date		0570435 2-12-98
		Stat. # 30 Hillsboro

PS Form 3800, April 1995



Department of Environmental Protection

Lawton Chiles
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Virginia B. Wetherell
Secretary

PERMITTEE:

Florida Gas Transmission Company
Post Office Box 945100
Maitland, Florida 32794-5100

FID No.	0570438
Permit No.	AC29-228821(A)
SIC No.	4922
Project:	Combustion Turbine 3003
Expires:	March 31, 1998

Authorized Representative:

Mr. Clayton Roesler
Division Environmental Specialist

PROJECT AND LOCATION:

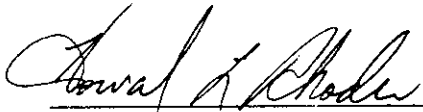
Re-issued air construction permit for a 1202 bhp combustion turbine, Unit No. 3003, at the Florida Gas Transmission Compressor Station No. 30, 2 miles east of State Highway 39 on Griffin Road near Plant City, Hillsborough County, Florida. UTM coordinates are Zone 17; 391.89 km E; 3106.61 km N.

STATEMENT OF BASIS:

This construction permit is reissued under the provisions of Chapter 403 of the Florida Statutes (F.S.), and the Florida Administrative Code (F.A.C.) Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297. The above named permittee is authorized to construct the project in accordance with the conditions of this permit and as described in the application, approved drawings, plans, and other documents on file with the Department of Environmental Protection (Department).

Attached appendices are made a part of this permit:

Appendix GC Construction Permit General Conditions
Appendix SC Emission Unit(s) Specific Conditions


Howard L. Rhodes, Director
Division of Air Resources
Management

APPENDIX SC

Specific Conditions

1. This permit supersedes permit AC29-228821, dated September 23, 1993 and its revision dated August 27, 1996. The provisions of the air construction AC29-228821, dated September 23, 1993 and the revision dated August 27, 1996 (attached) are incorporated into this air construction permit except for the changes that follow in Specific Conditions 2 and 3 below:

2. Original Specific Condition No. 1 as revised on August 27, 1996 is hereby further revised as follows:

NOx emissions shall not exceed ~~42~~150 ppmv at 15% oxygen on a dry basis (based on 100% load conditions). Annual emissions shall not exceed 17.3 TPY.

3. The original General Conditions are replaced by the attached conditions with updated references to applicable statutes.

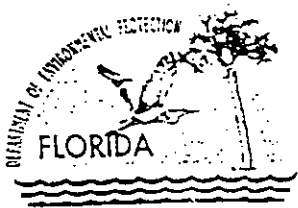
APPENDIX GC
GENERAL PERMIT CONDITIONS [F.A.C. 62-4.160]

- G.1 The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
- G.2 This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings or exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
- G.3 As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey and vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.
- G.4 This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
- G.5 This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
- G.6 The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.
- G.7 The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:
- (a) Have access to and copy and records that must be kept under the conditions of the permit;
 - (b) Inspect the facility, equipment, practices, or operations regulated or required under this permit, and,
 - (c) Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.
- Reasonable time may depend on the nature of the concern being investigated.
- G.8 If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:
- (a) A description of and cause of non-compliance; and
 - (b) The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

APPENDIX GC
GENERAL PERMIT CONDITIONS [F.A.C. 62-4.160]

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

- G.9 In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.
- G.10 The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.
- G.11 This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.
- G.12 This permit or a copy thereof shall be kept at the work site of the permitted activity.
- G.13 This permit also constitutes:
- (a) Determination of Best Available Control Technology ()
 - (b) Determination of Prevention of Significant Deterioration ();
 - (c) Compliance with New Source Performance Standards (X);
- G.14 The permittee shall comply with the following:
- (a) Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
 - (b) The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application or this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
 - (c) Records of monitoring information shall include:
 - 1. The date, exact place, and time of sampling or measurements;
 - 2. The person responsible for performing the sampling or measurements;
 - 3. The dates analyses were performed;
 - 4. The person responsible for performing the analyses;
 - 5. The analytical techniques or methods used; and
 - 6. The results of such analyses.
- G.15 When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.



Department of Environmental Protection

Lawton Chiles
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Virginia B. Wetherell
Secretary

NOTICE OF PERMIT AMENDMENT

In the Matter of an
Application for Permit by:


Mr. Allan Weatherford
Florida Gas Transmission Company
Post Office Box 945100
Maitland, Florida 32794-5100

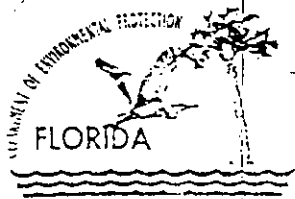
DRAFT Permit Amendment Number:
AC 29-228821
AIRS ID 0570438-002 AC
Hillsborough County (Station No. 30)

Enclosed is the Permit Amendment for the above mentioned compressor station which will modify the permit specific conditions. This facility is located in Hillsborough County, Florida. This permit amendment will be issued pursuant to Chapter 403, Florida Statutes (F.S.).

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

Executed in Tallahassee, Florida.


C. H. Fancy, P.E., Chief
Bureau of Air Regulation



Department of Environmental Protection

Lawton Chiles
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Virginia B. Wetherell
Secretary

August 21, 1996

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Allan Weatherford
Division Environmental Specialist
Florida Gas Transmission Company
Post Office Box 945100
Maitland, Florida 32794-5100

Dear Mr. Weatherford:

RE: Request for Amendment to Air Construction Permit
AC29-228821 (Station No. 30) Hillsborough County
AIRS ID 0570438-002 AC

The Department is in receipt of your letters dated April 12 and May 10, 1996, requesting to amend the above permit to include the EPA custom fuel monitoring schedule and to modify specific conditions Nos. 1, 2 and 8.

The Department has reviewed this request and hereby amends the above mentioned permit as follows:

SPECIFIC CONDITION No. 1

This condition will be modified to exclude the emission limits standard for all pollutants except for NO_x and SO₂. The emissions expressed in units of mass (TPY) will remain as a condition of the permit. This facility has already demonstrated initial compliance with the permit limits.

FROM:

POLLUTANT	lbs/hr	tons/yr	Emission Factor
NOx *	3.95	17.3	1.49 g/bhp-hr
CO	5.88	25.75	2.22 g/bhp-hr
VOC(s) (non-methane)	0.25	1.10	0.95 g/bhp-hr
PM	0.077	0.34	5 lbs/MMscf
PM10	0.077	0.34	5 lbs/MMscf
S02	0.44	1.94	10 gr S/100scf

*NOx emission standard shall not exceed 42 ppmv at 15% oxygen on a dry basis.

TO:

Standard for Sulfur Dioxide [40 CFR 60.333(a)]

The owner or operator shall not cause to be discharge into the atmosphere from any gas turbine any gases which contain sulfur dioxide in excess of 0.015 percent by volume at 15 percent oxygen and on a dry basis. Annual emissions shall not exceed 1.94 TPY.

Standard for Nitrogen Oxides

NOx emissions shall not exceed 42 ppmv at 15% oxygen on a dry basis. (Based on a 100% load conditions). Annual emissions shall not exceed 17.3 TPY.

SPECIFIC CONDITION No. 2

FROM:

Visible Emissions shall not exceed 10% opacity.

TO:

Visible emissions shall not exceed 20% opacity.

SPECIFIC CONDITION No. 8

Mr. Allan Weatherford
Florida Gas Transmission
Station No. 30
Page 3

FROM:

Compliance with the allowable emission limits shall be determined within 60 days after achieving the maximum production rate at which this facility will be operated, but not later than 180 days after initial start-up and annually thereafter except as provided in Specific Condition 10, below, by the following reference methods as described in 40 CFR 60, Appendix A (July 1992 version) and adopted by reference in Chapter 17-297, F.A.C.

Method 1	Sample and Velocity Traverses
Method 2	Volumetric Flow Rate
Method 3 or 3A	Gas Analysis
Method 9	Determination of the Opacity of the Emissions from Stationary Sources
Method 10	Determination of the Carbon Monoxide from Stationary Sources
Method 20	Determination of Nitrogen Oxides, Sulfur Dioxide and Diluent Emissions from Gas Turbines
Method 18	Measurement of Gaseous Organic Compounds Emissions by Gas Chromatography
Method 25A	Determination of Total Gaseous Organic Concentrations Using a Flame Ionization Analyzer

TO:

Compliance with the allowable emission limits shall be determined by the following EPA reference methods as described in 40 CFR 60, Appendix A and adopted by reference in Chapter 62-297, F.A.C.

Method 1	Sample and Velocity Traverses
Method 2	Volumetric Flow Rate
Method 3 or 3A	Gas Analysis
Method 9	Determination of the Opacity of the Emissions from Stationary Sources
Method 20	Determination of Nitrogen Oxides, Sulfur Dioxide and Diluent Emissions from Gas Turbines

Since this source already demonstrated initial compliance with permitted emission limits, subsequent testing frequency (in operating permits) shall be as determined by the Hillsborough County Environmental Protection Commission (EPC) office.

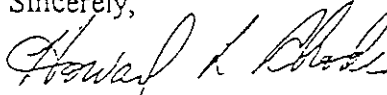
Mr. Allan Weatherford
Florida Gas Transmission
Station No. 30
Page 4

CUSTOM FUEL MONITORING SCHEDULE

The custom monitoring schedule, when approved by EPA, will be incorporated by reference. Currently, EPA is in the process of approving the FGT request.

This letter must be attached to the above mentioned permit and shall become a part of the permit.

Sincerely,



Howard L. Rhodes, Director
Division of Air Resources
Management

Attachment to be Incorporated

Mr. Allan Weatherford's letters of April 12 and May 10, 1996.

TECHNICAL EVALUATION
AND
PRELIMINARY DETERMINATION

FLORIDA GAS TRANSMISSION COMPANY

Hillsborough County
Plant City, Florida
Station No. 30

Natural Gas Compressor Engine
Permit No. AC 29-228821

Department of Environmental Protection
Division of Air Resources Management
Bureau of Air Regulation

July 22, 1993



Florida Department of Environmental Protection

Lawton Chiles
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Virginia B. Wetherell
Secretary

PERMITTEE:
Florida Gas Transmission Company
P.O. Box 1188
Houston, Texas 77251-1188

Permit Number: AC 29-228821
Expiration Date: June 30, 1995
County: Hillsborough
Latitude/Longitude: 28°04'55"N
82°06'01"W
Project: Natural Gas Turbine
No. 3003) Station No. 30

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 17-210, 212, 272, 275, 296, and 297 and 17-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawings, plans, and other documents attached hereto or on file with the Department and made a part hereof and specifically described as follows:

For the construction of one natural gas fired turbine and associated support equipment to be located on Griffin Road, 2 miles east of State Highway 36, Plant City, Hillsborough County, Florida. The UTM coordinates are Zone 17, 392.895 km East and 3106.61 km North.

The source shall be constructed in accordance with the permit application, plans, documents, amendments and drawings, except as otherwise noted in the General and Specific Conditions.

Attachments are listed below:

1. DEP Form 17-1.202(1) Application to Operate/Construct Air Pollution Sources.
2. Florida Gas Transmission's letter dated April 27, 1993.

PERMITTEE:
Florida Gas Transmission Company

Permit Number: AC 29-228821
Expiration Date: June 30, 1995

GENERAL CONDITIONS:

- c. Records of monitoring information shall include:
- the date, exact place, and time of sampling or measurements;
 - the person responsible for performing the sampling or measurements;
 - the dates analyses were performed;
 - the person responsible for performing the analyses;
 - the analytical techniques or methods used; and
 - the results of such analyses.

15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

SPECIFIC CONDITIONS:

Emission Limits

1. The maximum allowable emissions* from this source shall not exceed the emission rates as follows:

Pollutant	lbs/hr	tons/yr	Emission Factor
Nitrogen Oxides**	3.95	17.3	1.49 g/bhp-hr
Carbon Monoxide	5.88	25.75	2.22 g/bhp-hr
Volatile Organic Compounds (non-methane)	0.25	1.10	0.95 g/bhp-hr
Particulate Matter (TSP)	0.077	0.34	5 lbs/MMscf
Particulate Matter (PM ₁₀)	0.077	0.34	5 lbs/MMscf
Sulfur Dioxide	0.44	1.94	10 gr S/100scf

**NOx emission standard shall not exceed 42 ppmv at 15% oxygen on a dry basis.

*Based on 100% load conditions.

2. Visible emissions shall not exceed 10% opacity.

Operating Rates

3. This source is allowed to operate continuously (8760 hours per year).

4. This source is allowed to use natural gas only.

PERMITTEE:

Florida Gas Transmission Company

Permit Number: AC 29-228821

Expiration Date: June 30, 1995

SPECIFIC CONDITIONS:

10. Initial compliance with the total volatile organic compounds will be determined by EPA Method 25A or Method 18. Thereafter, except as provided in Rule 17-297.340(2), compliance with the total VOC emission limits will be assumed, provided the CO allowable emission rate is achieved.

11. During performance tests, to determine compliance with the NOx standard, measured NOx emissions at 15 percent oxygen will be adjusted to ISO ambient atmospheric conditions by the following correction factor:

$$NO_x = (NO_x \text{ obs}) \left(\frac{P_{ref}}{P_{obs}} \right)^{0.5} e^{19 (H_{obs} - 0.00633)} \left(\frac{288^\circ K}{T_{AMB}} \right)^{1.53}$$

where:

NOx = Emissions of NOx at 15 percent oxygen and ISO standard ambient conditions.

NOx obs = Measured NOx emission at 15 percent oxygen, ppmv.

Pref = Reference combustor inlet absolute pressure at 101.3 kilopascals (1 atmosphere) ambient pressure.

Pobs = Measured combustor inlet absolute pressure at test ambient pressure.

Hobs = Specific humidity of ambient air at test.

e = Transcendental constant (2.718).

TAMB = Temperature of ambient air at test.

12. Stack sampling facilities shall be required and shall comply with the requirements of F.A.C. Rule 17-297.345. Test results will be the average of 3 valid runs. The Air Section of the Environmental Protection Commission in Hillsborough County (EPCHC) and the Southwest District office shall be notified at least 30 days in writing in advance of the compliance test(s). The source shall operate between 90% and 100% of permitted capacity during the compliance test. Compliance test results shall be submitted to the EPCHC and the Southwest District offices no later than 45 days after completion.

13. Sulfur and nitrogen content and the lower heating value of the fuel being fired in the combustion turbines shall be determined as specified in 40 CFR 60.334(b). Any request for a future custom monitoring schedule shall be made in writing and directed to the Environmental Protection Commission of Hillsborough County (EPCHC),

PERMITTEE:
Florida Gas Transmission Company

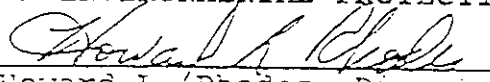
Permit Number: AC 29-228821
Expiration Date: June 30, 1995

SPECIFIC CONDITIONS:

21. Fugitive dust emissions, during the construction period, shall be minimized by covering or watering dust generation areas.
22. Pursuant to F.A.C. Rule 17-210.300(2), Air Operating Permits, the permittee is required to submit annual reports on the actual operating rates and emissions from this facility. These reports shall include, but are not limited to the following: sulfur and nitrogen content, lower heating value of the fuel being fired, fuel usage, turbine inlet and outlet temperature, RPM, hours of operation, air emissions limits, etc. Annual reports shall be sent to the Department's Southwest District office and the EPCHC by March 1 of each calendar year.
23. The permittee, for good cause, may request that this construction permit be extended. Such a request shall be submitted to the Bureau of Air Regulation prior to 60 days before the expiration of the permit (F.A.C. Rule 17-4.090).
24. An application for an operation permit must be submitted to the EPCHC and the Southwest District offices at least 90 days prior to the expiration date of this construction permit. To properly apply for an operation permit, the applicant shall submit the appropriate application form, fee, certification that construction was completed noting any deviations from the conditions in the construction permit, and compliance test reports as required by this permit (F.A.C. Rules 17-4.055 and 17-4.220).

Issued this 23 day
of September, 1993

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION


Howard L. Rhodes, Director
Division of Air Resources
Management

I. SYNOPSIS OF APPLICATION

I.1 APPLICANT NAME AND ADDRESS

Florida Gas Transmission Company
P.O. Box 1188
Houston, Texas 77251-1188

I.2 REVIEWING AND PROCESS SCHEDULE

Date of Receipt of Application: March 26, 1993

Additional Information Received: April 28, 1993

Application Completeness Date: April 28, 1993

II. FACILITY INFORMATION

II.1 FACILITY LOCATION

Florida Gas Transmission Company's (FGTC) facility is located 4 miles northeast of the town of Plant City on State Route 582 in Hillsborough County, Florida. The UTM coordinates are 391.89 E and 3106.61 Km N.

II.2 STANDARD INDUSTRIAL CLASSIFICATION CODE

This facility is classified as follows:

Major Group No.49 - Electric and Sanitary Services

Group No.492- Gas Production and Distribution

Industry No. 4922- Natural Gas Transmission

II.3 FACILITY CATEGORY

The FGTC site in Hillsborough County, will be classified as a minor emitting facility for nitrogen oxides (NOx) and carbon monoxide (CO). The proposed project will increase NOx by 17.30 tons per year and CO by 25.75 tons per year. The total permitted emissions for this facility shall not exceed 46.16 tons NOx per year and 43.03 tons CO per year.

III. PROJECT DESCRIPTION

The FGTC proposed to install one natural gas fired turbine. The turbine engine will be a Solar Saturn T-1200 compressor unit ISO rated at 1,202 bhp at 22,500 revolutions per minute (rpm). The proposed unit will be used to drive a gas compressor that is a part of a new gas transmission line that will transport natural gas from

source wells in Texas and Louisiana for delivery throughout Florida. The proposed engine will incorporate dry low NOx combustion technology. The engine to be installed at compressor station No. 30 is currently operating under a Florida Department of Environmental Regulation permit (AO 53-20944-Engine No. 3201) at Compressor Station No. 32, in Polk County. As part of this project, the Polk County compressor unit and associated auxiliary equipment will be deactivated at Compressor Station No 32, transported to Compressor Station No. 30 and reactivated. A flow diagram of a typical compressor unit is presented in Figure 2-1.

III.1 Background Information

Hillsborough County existing compressor station consists of two (2) Solar Saturn T-1200 turbine engines (note: both units are remanufactured T-1001 turbines, providing T-1200 performance). This compressor station began operations in 1970 when engine 3001 was installed. A second identical unit (3002) was added to the station in 1985. These existing turbines are not modified as part of this Phase III expansion project.

In general, the FGTC Phase III expansion project will be increasing the natural gas transport capacity of the existing Florida gas pipeline system. The scope of the work for Phase III includes expansions by the addition of state-of-the art compressor engines at four existing compressor stations and two new proposed compressor stations. The proposed engines and turbine engines would be used solely for the purpose of transporting natural gas in the pipeline for distribution in Florida. The main gas pipeline and the approximate locations of the existing and proposed compressor stations along the main pipeline are shown in Figure 1-1.

IV. RULE APPLICABILITY

The proposed project is subject to preconstruction review under the provisions of Chapter 403, Florida Statutes, and Florida Administrative (F.A.C.) Chapters 17-209 through 17-297.

This plant is located in an area (Hillsborough County) designated nonattainment for ozone and attainment for all of the other criteria pollutant in accordance with Rule 17-275.500 and 17-275.400, respectively.

The proposed project is exempt from review under F.A.C. Rule 17-212.400 Prevention of Significant Deterioration (PSD) because this new source is considered a minor emitting facility for purpose of the PSD regulations under (250 TPY).

The proposed facility shall comply with applicable provisions of F.A.C. Chapter 17-297, Stationary Sources-Emissions Monitoring; F.A.C. 17-296, Stationary Sources-Emissions Standards; F.A.C. Rule

17-296.310 General Particulate Emission Limiting Standards; F.A.C. Rule 17-296.320, General Pollutant Limiting Standards. The proposed project will be reviewed in accordance with F.A.C. Rule 17-212.300, Sources not Subject to PSD review or Nonattainment Requirements.

V. SOURCE IMPACT ANALYSIS

V.1 EMISSION LIMITATIONS

The proposed engine will incorporate dry low-NOx combustion technology. Dry combustion techniques are designed to alter the conditions in the combustion chamber to influence the temperature, residence time, and mixing of air and fuel so as to reduce the amount of NOx formed. The state-of-the-art concept in designing a low-NOx turbine involves raising the air-to-fuel ratio in the combustion primary zone and thoroughly premixing primary combustion air and fuel. This reduces NOx formation by lowering the average flame temperature in the combustor primary zone and avoiding localized hot spots. Dry low-NOx combustion is a technically feasible control method for natural gas pipeline turbines.

The operation of this source will produce emissions of nitrogen oxide (NOx), carbon monoxide (CO), volatile organic compounds (VOC), particulate matter (PM), and sulfur dioxide (SO2) from the burning of natural gas. Potential new VOC emissions from the station include fugitive emissions from new valves and flanges that will be in gas service. Table I summarizes the proposed source emissions and Table II comprises the proposed and total emissions from this station.

Table I
Summary of Emissions
Source ID No. 3003

<u>Pollutant</u>	Max. Potential Emissions From Proposed Turbine (lbs/hr)	(TPY)	Significant Emission Rate (TPY)
Nitrogen Oxides	3.95	17.30	40
Carbon Monoxide	5.88	25.75	100
Volatile Organic Compounds (non-methane)	0.25	1.10	40
Particulate Matter (TSP)			
Particulate Matter (PM ₁₀)	0.06	0.28	25
Sulfur Dioxide	0.37	1.62	40
Fugitive (VOC Emissions)	0.154	0.68	

V.2 AIR QUALITY ANALYSIS

From a technical review of the application, the Department has determined that the construction and operation of this source will not have a detrimental impact on Florida's ambient air quality.

TABLE II

Annual (TPY) Emission Levels
 FGTC's Compressor Station No. 30

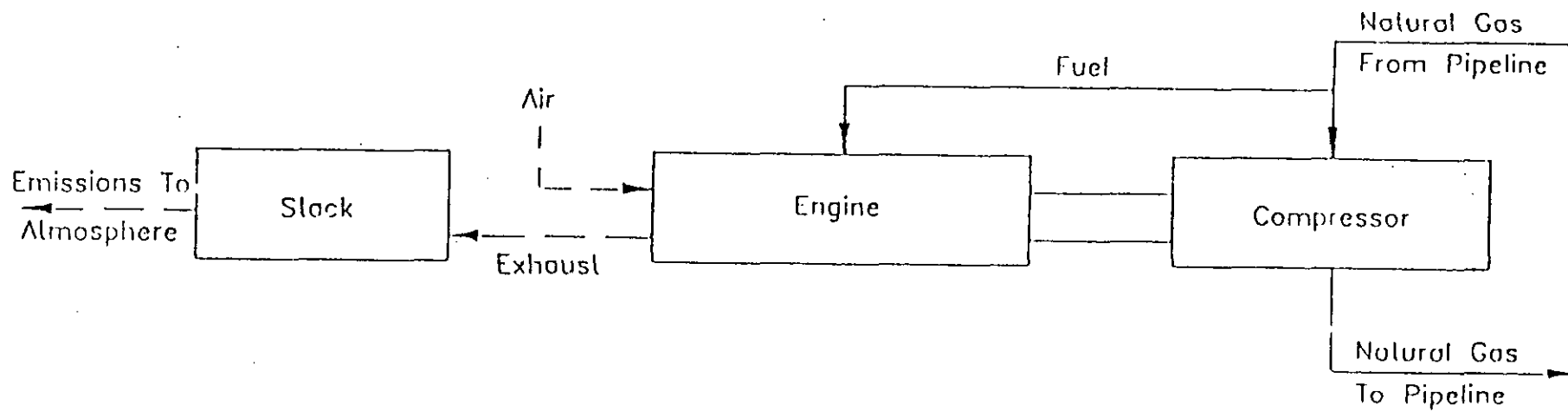
SOURCE ID	DESCRIPTION	NO _x	CO	VOC (NM/NE, HC)	SO ₂	PM
EXISTING FACILITY						
	COMPRESSOR ENGINES:					
3001	1202 bhp Turbine Engine	14.43	8.64	0.22	1.58	0.28
3002	1202 bhp Turbine Engine	14.43	8.64	0.22	1.58	0.28
	OTHER SOURCES:	—	—	0.17	—	—
EXISTING TOTAL		28.86	17.28	0.61	3.16	0.56
PROJECT RELATED						
	COMPRESSOR ENGINE:					
	1202 bhp Turbine Engine	17.30	25.75	1.10	1.62	0.28
	TANKS:					
Tank 1	Used Lube Oil Tank	—	—	0.00**	—	—
Tank 2	Used Lube Oil Tank	—	—	0.00**	—	—
	FUGITIVE	—	—	0.13	—	—
PROJECT TOTAL		17.30	25.75	1.23	1.62	0.28
STATION TOTAL		46.16	43.03	1.84	4.78	0.84

- estimated fugitive emissions from equipment leaks only.
- actual emissions are insignificant at 0.00002 TPY for Tank 1 and 0.00002 TPY for Tank 2.
- STATION TOTAL = EXISTING + PROJECT

VI. CONCLUSION

Based on the information provided by Florida Gas Transmission Company, the Department has reasonable assurance that the proposed project, as described in this evaluation, and subject to the conditions proposed herein, will not cause or contribute to a violation of any air quality standard, PSD increment, or any other technical provision of Chapter 17-209 through 17-297 of the Florida Administrative Code.

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FIGURE 2-1 PROCESS FLOW DIAGRAM OF AN ENGINE-COMPRESSOR UNIT			
DRAWN	DC/SII	DATE	11-6-92 PROJECT TRANS D.

Florida Department of
Environmental Protection

Memorandum

TO: Howard L. Rhodes

THRU: Clair Fancy 
Al Linero  2/3

FROM: Teresa Heron

DATE: February 3, 1998

SUBJECT: Florida Gas Transmission (FGT)
AC29-228821A - Station No. 30 Hillsborough County

Attached is the package for re-issuance of the construction permit for FGT Station No. 30. The re-issuance of this permit is for the amendment of Specific Condition No. 1. This condition lists a NO_x standard of 42 ppmv at 15% oxygen on a dry basis for turbine 3003. This standard was inadvertently set for this turbine in the original construction permit issued in 1993. This Station did not undergo PSD or BACT review. The condition probably strayed over from the permits which did undergo PSD/BACT review. Hourly and annual emission limits for NO_x from this unit are correct and remain unchanged.

I recommend your approval and signature.

AAL/th

Attachments