Florida Department of Environmental Regulation

Twin Towers Office Bldg. ● 2600 Blair Stone Road ● Tallahassee, Florida 32399-2400

Lawton Chiles, Governor

Carol M. Browner, Secretary

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION
NOTICE OF PERMIT

Mr. William R. Osborne, Project Environmentalist
Environmental Affairs Department
Florida Gas Transmission Company
Post Office Box 1188
Houston, Texas 77251-1188

May 9, 1991

Enclosed is construction permit AC 05-189665 to install two natural gas-fired engines at the Florida Gas Transmission facility in Brevard County, Florida. This permit is issued pursuant to Section 403, Florida Statutes.

Any party to this permit has the right to seek judicial review of the permit pursuant to Section 120.68, Florida Statutes, 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 Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400; 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 days from the date this permit is filed with the Clerk of the Department.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

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

Copy furnished to:

C. Collins, CD
D. Buff, P.E.

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this NOTICE OF PERMIT and all copies were mailed before the close of buisness on 5-10-91.

FILING AND ACKNOWLEDGEMENT FILED, on this date, pursuant to §120.52(9), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Kyra Daber 5-10-91

Clerk Date

Final Determination

Florida Gas Transmission Company
Brevard County, Florida

Two Natural Gas Engines
AC 05-189665

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

May 9, 1991

Final Determination

The Technical Evaluation and Preliminary Determination for the permit to construct two natural gas engines at the Florida Gas Transmission Company's facility located west-southwest of Melbourne Regional Airport in Melbourne, Brevard County, Florida, was distributed on March 15, 1991. The Notice of Intent to Issue was published in The Orlando Sentinel on March 21, 1991. Copies of the evaluation were available for public inspection at the Department of Environmental Regulation, Bureau of Air Regulation, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400 and the Department of Environmental Regulation, Central District Office, 3319 Maguire Blvd., Suite 232, Orlando, Florida 32803-3767.

Comments were received from Mr. David Buff, P.E., from KBN Engineering and Applied Sciences, Inc. Mr. Buff requested some clarification regarding the requirement and time of the compliance tests. Also, Mr. Buff pointed out some minor typographical errors. As results of his comments, all typographical errors were corrected and an additional sentence was added to the Compliance Determination Section of each permit that reads:

Compliance Determination:

"This source shall demonstrate compliance with its limits for each affected pollutant within 60 days after completion of construction and annually thereafter, as follows:"

The final action of the Department will be to issue construction permit No. AC 05-189665, with the changes as requested by Mr. Buff and noted above.

Florida Department of Environmental Regulation

Twin Towers Office Bldg. ● 2600 Blair Stone Road ● Tallahassee, Florida 32399-2400

Lawton Chiles, Governor

Carol M. Browner, Secretary

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

Permit Number: AC 05-189665
Expiration Date: June 30, 1992
County: Brevard
Latitude/Longitude: 28°02'30"N
80°42'30"W
Project: Natural Gas Compressor Engines (Units Nos. 1 & 2)
Station No. 19

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 17-2 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 two natural gas fired engines to be located 6 miles west-southwest of Melbourne Regional Airport. The UTM coordinates are Zone 17, 528.67 km East and 3101.64 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. DER Form 17-1.202(1)

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.141, 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.

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, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.

3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any 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 of 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.

4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgement 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.

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.

GENERAL CONDITIONS:

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.

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 any 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.

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.

GENERAL CONDITIONS:

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.

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.

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.

11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 17-4.120 and 17-730.300, 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.

12. This permit or a copy thereof shall be kept at the work site of the permitted activity.

13. 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 for 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:

- 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.

14. 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 each engine shall not exceed the emission rates as follows:

Pollutant	lbs/hr	tons/yr	Emission Factor
Nitrogen Oxides	11.0	48.3	2.0 g/bhp-hr
Carbon Monoxide	15.4	67.6	2.8 g/bhp-hr
Volatile Organic Compounds (non-methane)	9.4	41.0	1.7 g/bhp-hr
Particulate Matter (TSP)	0.09	0.4	5 lbs/MMscf
Particulate Matter (PM_{10})	0.09	0.4	5 lbs/MMscf
Sulfur Dioxide	0.51	2.2	10 gr/100scf

2. Visible emissions shall not exceed 10% opacity.

Operating Rates

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

SPECIFIC CONDITION:

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

5. The permitted operating parameters and utilization rates for these natural gas compressor engines shall not exceed the values stated in the application. The parameters include, but are not limited to:

- Maximum natural gas consumption shall not exceed 17,718 scf/hr per engine.
- Maximum heat input shall not exceed 36.50 MMBtu/hr for both engines.

6. Any change in the method of operation, equipment or operating hours shall be submitted to the DER's Bureau of Air Regulation and Central District offices.

7. Any other operating parameters established during compliance testing and/or inspection that will ensure the proper operation of this facility shall be included in the operating permit.

Compliance Determination

This source shall demonstrate compliance with its emission limits for each affected pollutant within 60 days after completion of construction and annually thereafter as follows:

8. Compliance with the NO_x, SO_2, CO, and VOC standards shall be determined by the following reference methods as described in 40 CFR 60, Appendix A (July 1, 1989) and adopted by reference in F.A.C. Rule 17-2.700.

- Method 1. Sample and Velocity Traverses
- Method 2. Volumetric Flow Rate
- Method 3. Gas Analysis
- Method 7E. Determination of Nitrogen Oxides Emissions from Stationary Sources
- Method 9. Determination of the Opacity of the Emissions from Stationary Sources
- Method 10. Determination of the Carbon Monoxide Emission from Stationary Sources
- Method 25. Determination of Total Gaseous Nonmethane Organic Emissions as Carbon

SPECIFIC CONDITIONS:

9. Compliance with the SO_2 emission limit can be determined by calculations based on fuel analysis using ASTM D1072-80, D3031-81, D4084-82, or D3246-81 for sulfur content of gaseous fuels.

10. Initial compliance with the total volatile organic compounds will be determined by EPA Method 25, thereafter, compliance with the total VOC emission limits will be assumed, provided the CO allowable emission rate is achieved.

11. Test results will be the average of 3 valid runs. The Central District office will be notified at least 15 days in advance of the compliance test. The source shall operate between 90% and 100% of permitted capacity during the compliance test. Compliance test results shall be submitted to the Central District office no later than 45 days after completion.

Rule Requirements

12. This source shall comply with all applicable provisions of Chapter 403, Florida Statutes and Chapters 17-2 and 17-4, Florida Administrative Code.

13. Issuance of this permit does not relieve the facility owner or operator from compliance with any applicable federal, state, or local permitting requirements and regulations (F.A.C. Rule 17-2.210(1)).

14. This source shall comply with all applicable provisions of F.A.C. Rule 17-2.700, Stationary Point Source Emission Test Procedures.

15. Pursuant to F.A.C. Rule 17-2.210(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: fuel usage, hours of operation, air to fuel ratio, air emissions limits, test results, etc. Annual reports shall be sent to the Department's Central District office.

16. 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).

SPECIFIC CONDITIONS:

17. An application for an operation permit must be submitted to the Central District office at least 90 days prior to the expiration date of this construction permit or within 45 days after completion of compliance testing, whichever occurs first. 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. Rule 17-4.220).

Issued this 8th day
of May, 1991

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION

STEVE SMALLWOOD, P.E., Director
Division of Air Resources Management

→ P4/28

Check Sheet

Company Name: Fla. Gas Transmission
Permit Number: AC 09-189665
PSD Number:
County: Brevard
Permit Engineer:
Others involved:

Application:
- [x] Initial Application
- [ ] Incompleteness Letters
- [ ] Responses
- [ ] Final Application (if applicable)
- [ ] Waiver of Department Action
- [ ] Department Response
- [ ] Other

Intent:
- [x] Intent to Issue
- [x] Notice to Public
- [x] Technical Evaluation
- [ ] BACT Determination
- [x] Unsigned Permit
- [ ] Correspondence with:
  - [ ] EPA
  - [ ] Park Services
  - [ ] County
  - [ ] Other
- [x] Proof of Publication
- [ ] Petitions - (Related to extensions, hearings, etc.)
- [ ] Other

Final Determination:
- [x] Final Determination
- [x] Signed Permit
- [ ] BACT Determination
- [ ] Other

Post Permit Correspondence:
- [x] Extensions
- [x] Amendments/Modifications
- [ ] Response from EPA
- [ ] Response from County
- [ ] Response from Park Services
- [ ] Other

Florida Department of
Environmental Protection

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

Lawton Chiles
Governor

Virginia B. Wetherell
Secretary

September 17, 1993

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Allan Weatherford
Compliance Environmentalist
Florida Gas Transmission Company
P. O. Box 94500
Maitland, Florida 32794-5100

Dear Mr. Weatherford:

Re: Request for Amendments and Extensions to Air Construction Permits **AC**57-188869, **AC**67-189220, **AC**20-189438, **AC**62-189439, **AC**04-189454, **AC**42-189455, **AC**48-189456, **AC**05-189655, and **AC**56-189457

The Department is in receipt of your letter dated June 29, 1993, requesting to extend the expiration date and to change the engine horsepower (HP) capacity, fuel consumption and heat input at various compressor stations. The Department has reviewed this request and has determined to amend the above mentioned permits as requested since there is no increase in permitted emission levels (lbs/hr and tons/yr).

The following changes are allowed by the Department:

COMPRESSOR STATION NO. 12 - SANTA ROSA COUNTY:

Description

FROM: For the construction of one 4,000 bhp natural gas fired engine to be located at the Florida Gas Transmission facility in Munson, Santa Rosa County, Florida. The UTM coordinates are Zone 16, 510.83 km East and 3419.03 km North.

TO: For the construction of one **4,100** bhp natural gas fired engine to be located at the Florida Gas Transmission facility in Munson, Santa Rosa County, Florida. The UTM coordinates are Zone 16, 510.83 km East and 3419.03 km North.

Specific Condition No. 1

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

Pollutant	lbs/hr	tons/yr	Emission Factor
Nitrogen Oxides	17.6	77.2	2.0 g/bhp-hr
Carbon Monoxide	22.1	96.6	2.5 g/bhp-hr
Volatile Organic Compounds (non-methane)	8.8	38.6	1.0 g/bhp-hr
Particulate Matter (TSP)	0.14	0.61	5 lbs/MMscf
Particulate Matter (PM_{10})	0.14	0.61	5 lbs/MMscf
Sulfur Dioxide	0.8	3.5	10 gr/100scf

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

Pollutant	lbs/hr	tons/yr	Emission Factor
Nitrogen Oxides	17.6	77.2	**1.95** g/bhp-hr
Carbon Monoxide	22.1	96.6	**2.44** g/bhp-hr
Volatile Organic Compounds (non-methane)	8.8	38.6	**0.97** g/bhp-hr
Particulate Matter (TSP)	0.14	0.61	**4.03** lbs/MMscf
Particulate Matter (PM_{10})	0.14	0.61	**4.03** lbs/MMscf
Sulfur Dioxide	0.8	3.5	**8.06** gr **S**/100scf

Specific Condition No. 5

FROM: The permitted operating parameters and utilization rates for this natural gas compressor engine shall not exceed the values stated in the application. The parameters include, but are not limited to:

- Maximum natural gas consumption shall not exceed 27,810 scf/hr.
- Maximum heat input shall not exceed 29.20 MMBtu/hr.

TO: The permitted operating parameters and utilization rates for this natural gas compressor engine shall not exceed the values stated in the application. The parameters include, but are not limited to:

- **Maximum** natural gas consumption shall not exceed **34,525** scf/hr.
- **Maximum** heat input shall not exceed **36.25** MMBtu/hr.

COMPRESSOR STATION NO. 13 - WASHINGTON COUNTY:

Description

FROM: For the construction of one 2,400 bhp natural gas fired engine to be located 9 miles south of Caryville on CR 284. The UTM coordinates are Zone 16, 610.69 km East and 3394.28 km North.

TO: For the construction of one **2,700** bhp natural gas fired engine to be located at the Florida Gas Transmission facility in Caryville, Washington County, Florida. The UTM coordinates are Zone 16, 610.69 km East and 3394.28 km North.

Specific Condition No. 1

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

Pollutant	lbs/hr	tons/yr	Emission Factor
Nitrogen Oxides	10.6	46.3	2.0 g/bhp-hr
Carbon Monoxide	11.1	48.7	2.1 g/bhp-hr
Volatile Organic Compounds (non-methane)	2.6	11.6	0.5 g/bhp-hr
Particulate Matter (TSP)	0.08	0.4	5 lbs/MMscf
Particulate Matter (PM_{10})	0.08	0.4	5 lbs/MMscf
Sulfur Dioxide	0.46	2.0	10 gr/100scf

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

Pollutant	lbs/hr	tons/yr	Emission Factor
Nitrogen Oxides	10.6	46.3	**1.78** g/bhp-hr
Carbon Monoxide	11.1	48.7	**1.87** g/bhp-hr
Volatile Organic Compounds (non-methane)	2.6	11.6	**0.44** g/bhp-hr
Particulate Matter (TSP)	0.08	0.4	**3.87** lbs/MMscf
Particulate Matter (PM_{10})	0.08	0.4	**3.87** lbs/MMscf
Sulfur Dioxide	0.46	2.0	**7.74** gr **S**/100scf

Specific Condition No. 5

FROM: The permitted operating parameters and utilization rates for this natural gas compressor engine shall not exceed the values stated in the application. The parameters include, but are not limited to:

- Maximum natural gas consumption shall not exceed 16,154 scf/hr.
- Maximum heat input shall not exceed 16.80 MMBtu/hr.

TO: The permitted operating parameters and utilization rates for this natural gas compressor engine shall not exceed the values stated in the application. The parameters include, but are not limited to:

- Maximum natural gas consumption shall not exceed **20,856** scf/hr.
- Maximum heat input shall not exceed **21.69** MMBtu/hr.

COMPRESSOR STATION NO. 14 - GADSDEN COUNTY:

Description

FROM: For the construction of one 2,400 bhp natural gas fired engine to be located 8 miles southwest of Quincy on SR 65. The UTM coordinates are Zone 16, 719.97 km East and 3377.39 km North.

TO: For the construction of one **2,700** bhp natural gas fired engine to be located at the Florida Gas Transmission facility in Quincy, Gadsden County, Florida. The UTM coordinates are Zone 16, 719.97 km East and 3377.39 km North.

Specific Condition No. 1

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

Pollutant	lbs/hr	tons/yr	Emission Factor
Nitrogen Oxides	10.6	46.3	2.0 g/bhp-hr
Carbon Monoxide	11.1	48.7	2.1 g/bhp-hr
Volatile Organic Compounds (non-methane)	2.6	11.6	0.5 g/bhp-hr
Particulate Matter (TSP)	0.08	0.4	5 lbs/MMscf
Particulate Matter (PM_{10})	0.08	0.4	5 lbs/MMscf
Sulfur Dioxide	0.46	2.0	10 gr/100scf

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

Pollutant	lbs/hr	tons/yr	Emission Factor
Nitrogen Oxides	10.6	46.3	**1.78** g/bhp-hr
Carbon Monoxide	11.1	48.7	**1.87** g/bhp-hr

Volatile Organic Compounds (non-methane)	2.6	11.6	**0.44** g/bhp-hr
Particulate Matter (TSP)	0.08	0.4	**3.87** lbs/MMscf
Particulate Matter (PM_{10})	0.08	0.4	**3.87** lbs/MMscf
Sulfur Dioxide	0.46	2.0	**7.74** gr **S**/100scf

Specific Condition No. 5

FROM: The permitted operating parameters and utilization rates for this natural gas compressor engine shall not exceed the values stated in the application. The parameters include, but are not limited to:

- Maximum natural gas consumption shall not exceed 16,154 scf/hr.
- Maximum heat input shall not exceed 16.80 MMBtu/hr.

TO: The permitted operating parameters and utilization rates for this natural gas compressor engine shall not exceed the values stated in the application. The parameters include, but are not limited to:

- Maximum natural gas consumption shall not exceed **20,856** scf/hr.
- Maximum heat input shall not exceed **21.69** MMBtu/hr.

COMPRESSOR STATION NO. 18 - ORANGE COUNTY:

FROM: For the construction of one 2,400 bhp natural gas fired engine to be located at 7990 Steer Lake Road. The UTM coordinates are Zone 17, 451.86 km East and 3154.79 km North.

TO: For the construction of one **2,700** bhp natural gas fired engine to be located at the Florida Gas Transmission facility in Orlando, Orange County, Florida. The UTM coordinates are Zone 16, 451.86 km East and 3154.79 km North.

Specific Condition No. 1

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

Pollutant	lbs/hr	tons/yr	Emission Factor
Nitrogen Oxides	10.6	46.3	2.0 g/bhp-hr
Carbon Monoxide	11.1	48.7	2.1 g/bhp-hr

Volatile Organic Compounds (non-methane)	2.6	11.6	0.5 g/bhp-hr
Particulate Matter (TSP)	0.08	0.4	5 lbs/MMscf
Particulate Matter (PM_{10})	0.08	0.4	5 lbs/MMscf
Sulfur Dioxide	0.476	2.2	10 gr/100scf

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

Pollutant	lbs/hr	tons/yr	Emission Factor
Nitrogen Oxides	10.6	46.3	**1.78** g/bhp-hr
Carbon Monoxide	11.1	48.7	**1.87** g/bhp-hr
Volatile Organic Compounds (non-methane)	2.6	11.6	**0.44** g/bhp-hr
Particulate Matter (TSP)	0.08	0.4	**3.95** lbs/MMscf
Particulate Matter (PM_{10})	0.08	0.4	**3.95** lbs/MMscf
Sulfur Dioxide	0.476	2.2	**7.90** gr S/100scf

Specific Condition No. 5

FROM: The permitted operating parameters and utilization rates for this natural gas compressor engine shall not exceed the values stated in the application. The parameters include, but are not limited to:

- Maximum natural gas consumption shall not exceed 16,311 scf/hr.
- Maximum heat input shall not exceed 16.80 MMBtu/hr.

TO: The permitted operating parameters and utilization rates for this natural gas compressor engine shall not exceed the values stated in the application. The parameters include, but are not limited to:

- Maximum natural gas consumption shall not exceed **20,640** scf/hr.
- Maximum heat input shall not exceed **21.26** MMBtu/hr.

COMPRESSOR STATION NO. 19 - BREVARD COUNTY:

Description

FROM: For the construction of two 2,500 bhp natural gas fired engines to be located 6 miles west-southwest of Melbourne Regional Airport. The UTM coordinates are Zone 17, 528.67 km East and 3101.64 km North.

TO: For the construction of two **2,600** bhp natural gas fired engine to be located at the Florida Gas Transmission facility in Melbourne, Brevard County, Florida. The UTM coordinates are Zone 17, 528.67 km East and 3101.64 km North.

Specific Condition No. 1

FROM: The maximum allowable emissions from each engine shall not exceed the emission rates as follows:

Pollutant	lbs/hr	tons/yr	Emission Factor
Nitrogen Oxides	11.0	48.3	2.0 g/bhp-hr
Carbon Monoxide	15.4	67.6	2.8 g/bhp-hr
Volatile Organic Compounds (non-methane)	9.4	41.0	1.7 g/bhp-hr
Particulate Matter (TSP)	0.09	0.4	5 lbs/MMscf
Particulate Matter (PM_{10})	0.09	0.4	5 lbs/MMscf
Sulfur Dioxide	0.51	2.2	10 gr/100scf

TO: The maximum allowable emissions from each engine shall not exceed the emission rates as follows:

Pollutant	lbs/hr	tons/yr	Emission Factor
Nitrogen Oxides	11.0	48.3	**1.92** g/bhp-hr
Carbon Monoxide	15.4	67.6	**2.69** g/bhp-hr
Volatile Organic Compounds (non-methane)	9.4	41.0	**1.64** g/bhp-hr
Particulate Matter (TSP)	0.09	0.4	**3.90** lbs/MMscf
Particulate Matter (PM_{10})	0.09	0.4	**3.90** lbs/MMscf
Sulfur Dioxide	0.51	2.2	**7.80** gr **S**/100scf

Specific Condition No. 5

FROM: The permitted operating parameters and utilization rates for these natural gas compressor engines shall not exceed the values stated in the application. The parameters include, but are not limited to:

- Maximum natural gas consumption shall not exceed 17,718 scf/hr per engine.
- Maximum heat input shall not exceed 36.50 MMBtu/hr for both engines.

TO: The permitted operating parameters and utilization rates for these natural gas compressor engines shall not exceed the values stated in the application. The parameters include, but are not limited to:

- Maximum natural gas consumption shall not exceed **22,703** scf/hr per engine.
- Maximum heat input shall not exceed **46.77** MMBtu/hr for both engines.

COMPRESSOR STATION NO. 15 - TAYLOR COUNTY:

Specific Condition No. 1

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

Pollutant	lbs/hr	tons/yr	Emission Factor
Nitrogen Oxides	17.6	77.2	2.0 g/bhp-hr
Carbon Monoxide	22.0	96.6	2.5 g/bhp-hr
Volatile Organic Compounds (non-methane)	8.8	38.6	1.0 g/bhp-hr
Particulate Matter (TSP)	0.13	0.6	5 lbs/MMscf
Particulate Matter (PM_{10})	0.13	0.6	5 lbs/MMscf
Sulfur Dioxide	0.75	3.3	10 gr/100scf

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

Pollutant	lbs/hr	tons/yr	Emission Factor
Nitrogen Oxides	17.6	77.2	2.0 g/bhp-hr
Carbon Monoxide	22.0	96.6	2.5 g/bhp-hr
Volatile Organic Compounds (non-methane)	8.8	38.6	1.0 g/bhp-hr
Particulate Matter (TSP)	0.13	0.6	**4.23** lbs/MMscf
Particulate Matter (PM_{10})	0.13	0.6	**4.23** lbs/MMscf
Sulfur Dioxide	0.75	3.3	**8.53** gr S/100scf

Specific Condition No. 5

FROM: The permitted operating parameters and utilization rates for this natural gas compressor engine shall not exceed the values stated in the application. The parameters include, but are not limited to:

- Maximum natural gas consumption shall not exceed 26,154 scf/hr.
- Maximum heat input shall not exceed 27.20 MMBtu/hr.

TO: The permitted operating parameters and utilization rates for this natural gas compressor engine shall not exceed the values stated in the application. The parameters include, but are not limited to:

- Maximum natural gas consumption shall not exceed **30,943** scf/hr.
- Maximum heat input shall not exceed **32.18** MMBtu/hr.

COMPRESSOR STATION NO. 16 - BRADFORD COUNTY:

Specific Condition No. 1

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

Pollutant	lbs/hr	tons/yr	Emission Factor
Nitrogen Oxides	17.6	77.2	2.0 g/bhp-hr
Carbon Monoxide	22.0	96.6	2.5 g/bhp-hr
Volatile Organic Compounds (non-methane)	8.8	38.6	1.0 g/bhp-hr
Particulate Matter (TSP)	0.13	0.6	5 lbs/MMscf
Particulate Matter (PM_{10})	0.13	0.6	5 lbs/MMscf
Sulfur Dioxide	0.75	3.3	10 gr/100scf

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

Pollutant	lbs/hr	tons/yr	Emission Factor
Nitrogen Oxides	17.6	77.2	2.0 g/bhp-hr
Carbon Monoxide	22.0	96.6	2.5 g/bhp-hr
Volatile Organic Compounds (non-methane)	8.8	38.6	1.0 g/bhp-hr
Particulate Matter (TSP)	0.13	0.6	**3.90** lbs/MMscf
Particulate Matter (PM_{10})	0.13	0.6	**3.90** lbs/MMscf
Sulfur Dioxide	0.75	3.3	**7.80** gr S/100scf

Specific Condition No. 5

FROM: The permitted operating parameters and utilization rates for this natural gas compressor engine shall not exceed the values stated in the application. The parameters include, but are not limited to:

- Maximum natural gas consumption shall not exceed 26,408 scf/hr.
- Maximum heat input shall not exceed 27.20 MMBtu/hr.

TO: The permitted operating parameters and utilization rates for this natural gas compressor engine shall not exceed the values stated in the application. The parameters include, but are not limited to:

- Maximum natural gas consumption shall not exceed **33,833** scf/hr.
- Maximum heat input shall not exceed **34.85** MMBtu/hr.

COMPRESSOR STATION NO. 17 - MARION COUNTY

Specific Condition No. 1

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

Pollutant	lbs/hr	tons/yr	Emission Factor
Nitrogen Oxides	10.6	46.3	2.0 g/bhp-hr
Carbon Monoxide	14.8	64.9	2.8 g/bhp-hr
Volatile Organic Compounds (non-methane)	9.0	39.4	1.7 g/bhp-hr
Particulate Matter (TSP)	0.09	0.4	5 lbs/MMscf
Particulate Matter (PM_{10})	0.09	0.4	5 lbs/MMscf
Sulfur Dioxide	0.49	2.2	10 gr/100scf

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

Pollutant	lbs/hr	tons/yr	Emission Factor
Nitrogen Oxides	10.6	46.3	2.0 g/bhp-hr
Carbon Monoxide	14.8	64.9	2.8 g/bhp-hr
Volatile Organic Compounds (non-methane)	9.0	39.4	1.7 g/bhp-hr
Particulate Matter (TSP)	0.09	0.4	**4.13** lbs/MMscf
Particulate Matter (PM_{10})	0.09	0.4	**4.13** lbs/MMscf
Sulfur Dioxide	0.49	2.2	**8.27** gr S/100scf

Specific Condition No. 5

FROM: The permitted operating parameters and utilization rates for this natural gas compressor engine shall not exceed the values stated in the application. The parameters include, but are not limited to:

- Maximum natural gas consumption shall not exceed 17,010 scf/hr.
- Maximum heat input shall not exceed 17.52 MMBtu/hr.

TO: The permitted operating parameters and utilization rates for this natural gas compressor engine shall not exceed the values stated in the application. The parameters include, but are not limited to:

- Maximum natural gas consumption shall not exceed **20,569** scf/hr.
- Maximum heat input shall not exceed **21.19** MMBtu/hr.

COMPRESSOR STATION NO. 20 - ST. LUCIE COUNTY

FROM: The maximum allowable emissions from this unit shall not exceed the emission rates as follows:

Pollutant	lbs/hr	tons/yr	Emission Factor
Nitrogen Oxides	10.6	46.3	2.0 g/bhp-hr
Carbon Monoxide	14.8	64.9	2.8 g/bhp-hr
Volatile Organic Compounds (non-methane)	9.0	39.4	1.7 g/bhp-hr
Particulate Matter (TSP)	0.09	0.4	5 lbs/MMscf
Particulate Matter (PM_{10})	0.09	0.4	5 lbs/MMscf
Sulfur Dioxide	0.49	2.0	10 gr/100scf

TO: The maximum allowable emissions from this unit shall not exceed the emission rates as follows:

Pollutant	lbs/hr	tons/yr	Emission Factor
Nitrogen Oxides	10.6	46.3	2.0 g/bhp-hr
Carbon Monoxide	14.8	64.9	2.8 g/bhp-hr
Volatile Organic Compounds (non-methane)	9.0	39.4	1.7 g/bhp-hr
Particulate Matter (TSP)	0.09	0.4	**4.13** lbs/MMscf
Particulate Matter (PM_{10})	0.09	0.4	**4.13** lbs/MMscf
Sulfur Dioxide	0.49	2.0	**8.27** gr S/100scf

Specific Condition No. 5

FROM: The permitted operating parameters and utilization rates for this natural gas compressor engine shall not exceed the values stated in the application. The parameters include, but are not limited to:

- Maximum natural gas consumption shall not exceed 17,010 scf/hr.
- Maximum heat input shall not exceed 17.52 MMBtu/hr.

TO: The permitted operating parameters and utilization rates for this natural gas compressor engine shall not exceed the values stated in the application. The parameters include, but are not limited to:

- Maximum natural gas consumption shall not exceed **20,569** scf/hr.
- Maximum heat input shall not exceed **21.19** MMBtu/hr.

Expiration Date

The expiration date of the above mentioned permit will be changed from June 30, 1993, to **December 31, 1993.**

This letter must be attached to the above mentioned permits and shall become a part of each permit. If you have any questions, please call Teresa Heron at (904) 488-1344.

Sincerely,

Howard L. Rhodes
Director
Division of Air Resources Management

HLR/TH/plm

Attachment to be Incorporated:
Mr. Allan Weatherford's letter of June 29, 1993

cc: E. Middleswart, NWD
Robert Leetch, NED
Charles Collins, CD
Isidore Goldman, SED
Duane Pierce, FGTC
Barry Andrews, ENSR

STATION 19

MELBOURNE, FLORIDA

Station	Model Run Factor	MAXIMUM 1-HR CONCENTRATION (ug/m**3) NOx	CO	VOCs	Particulates	SO2	Maximum Emission (lb/hr) NOx	CO	VOCs	Particulates	SO2
19 Permitted	5.202	114.444	160.742	97.277	0.936	5.254	22.00	30.90	18.70	0.18	1.01
19 Revised	3.297	75.600	105.834	64.259	0.593	3.528	22.93	32.10	19.49	0.18	1.07

Model Run Factor is maximum 1-hr concentration based on emission of 1 lb/hr.
Maximum 1-hr concentrations calculated as (Model Run Factor) X (Maximum Emission).

Note: Emission rates and modeled concentrations for Station 19 are based on two engines.

04-06-93
18:09:39

*** SCREEN-1.1 MODEL RUN ***
*** VERSION DATED 88300 ***

Station 19--Permit--Simple Terrain, no Downwash

SIMPLE TERRAIN INPUTS:

SOURCE TYPE	=	POINT
EMISSION RATE (G/S)	=	.1260
STACK HEIGHT (M)	=	12.19
STK INSIDE DIAM (M)	=	.39
STK EXIT VELOCITY (M/S)	=	24.17
STK GAS EXIT TEMP (K)	=	641.48
AMBIENT AIR TEMP (K)	=	293.00
RECEPTOR HEIGHT (M)	=	.00
IOPT (1=URB,2=RUR)	=	2
BUILDING HEIGHT (M)	=	.00
MIN HORIZ BLDG DIM (M)	=	.00
MAX HORIZ BLDG DIM (M)	=	.00

*** FULL METEOROLOGY ***

****
*** SCREEN AUTOMATED DISTANCES ***
****

*** TERRAIN HEIGHT OF .00 M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

DIST (M)	CONC (UG/M**3)	STAB	U10M (M/S)	USTK (M/S)	MIX HT (M)	PLUME HT (M)	SIGMA Y (M)	SIGMA Z (M)	DWASH
1.	.0000	0	.0	.0	.0	.0	.0	.0	
100.	2.368	2	5.0	5.1	1600.0	26.0	19.5	11.1	NO
200.	5.029	3	8.0	8.2	2560.0	20.7	23.7	14.2	NO
300.	5.084	3	4.0	4.1	1280.0	29.3	34.6	20.9	NO
400.	4.670	3	3.0	3.1	960.0	35.0	45.1	27.2	NO
500.	4.441	4	5.0	5.2	1600.0	25.7	36.4	18.7	NO
MAXIMUM 1-HR CONCENTRATION AT OR BEYOND 1. M:									
258.	5.202	3	5.0	5.1	1600.0	25.9	30.2	18.2	NO

DWASH= MEANS NO CALC MADE (CONC = 0.0)
DWASH=NO MEANS NO BUILDING DOWNWASH USED
DWASH=HS MEANS HUBER-SNYDER DOWNWASH USED
DWASH=SS MEANS SCHULMAN-SCIRE DOWNWASH USED
DWASH=NA MEANS DOWNWASH NOT APPLICABLE, X<3*LB

****
*** SUMMARY OF SCREEN MODEL RESULTS ***
****

CALCULATION PROCEDURE	MAX CONC (UG/M**3)	DIST TO MAX (M)	TERRAIN HT (M)
SIMPLE TERRAIN	5.202	258.	0.

****
** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **
****

04-06-93
18:11:00

*** SCREEN-1.1 MODEL RUN ***
*** VERSION DATED 88300 ***

Station 19--Actual--Simple Terrain, no Downwash

SIMPLE TERRAIN INPUTS:

SOURCE TYPE	=	POINT
EMISSION RATE (G/S)	=	.1260
STACK HEIGHT (M)	=	19.20
STK INSIDE DIAM (M)	=	.51
STK EXIT VELOCITY (M/S)	=	14.05
STK GAS EXIT TEMP (K)	=	641.48
AMBIENT AIR TEMP (K)	=	293.00
RECEPTOR HEIGHT (M)	=	.00
IOPT (1=URB,2=RUR)	=	2
BUILDING HEIGHT (M)	=	.00
MIN HORIZ BLDG DIM (M)	=	.00
MAX HORIZ BLDG DIM (M)	=	.00

*** FULL METEOROLOGY ***

****
*** SCREEN AUTOMATED DISTANCES ***
****

*** TERRAIN HEIGHT OF .00 M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

DIST (M)	CONC (UG/M**3)	STAB	U10M (M/S)	USTK (M/S)	MIX HT (M)	PLUME HT (M)	SIGMA Y (M)	SIGMA Z (M)	DWASH
1.	.0000	0	.0	.0	.0	.0	.0	.0	
100.	.6620	1	3.0	3.1	960.0	41.4	27.4	14.9	NO
200.	3.255	1	3.0	3.1	960.0	41.4	50.4	30.0	NO
300.	3.191	2	3.0	3.1	960.0	41.4	52.6	30.8	NO
400.	3.275	3	3.0	3.2	960.0	41.0	45.1	27.2	NO
500.	3.183	3	3.0	3.2	960.0	41.0	55.1	33.0	NO
MAXIMUM 1-HR CONCENTRATION AT OR BEYOND 1. M:									
427.	3.297	3	3.0	3.2	960.0	41.0	47.9	28.8	NO

DWASH= MEANS NO CALC MADE (CONC = 0.0)
DWASH=NO MEANS NO BUILDING DOWNWASH USED
DWASH=HS MEANS HUBER-SNYDER DOWNWASH USED
DWASH=SS MEANS SCHULMAN-SCIRE DOWNWASH USED
DWASH=NA MEANS DOWNWASH NOT APPLICABLE, X<3*LB

****
*** SUMMARY OF SCREEN MODEL RESULTS ***
****

CALCULATION PROCEDURE	MAX CONC (UG/M**3)	DIST TO MAX (M)	TERRAIN HT (M)
SIMPLE TERRAIN	3.297	427.	0.

****
** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **
****

Air Emissions Estimates for Permitting

Station 19

	NOX (TPY)	CO (TPY)	NMHC (TPY)	SO2 (TPY)	PM (TPY)
Engines					
Compressor Engine 1	48.29	67.61	41.500	2.2500	0.3900
Compressor Engine 2	48.29	67.61	41.500	2.2500	0.3900
Emergency Generator Engine 1	3.69	0.34	0.170	0.0084	0.0029
Tanks					
Oil/Water Separator Tank 1	0.00	0.00	0.15	0.0000	0.0000
Oil/Water Separator Tank 2	0.00	0.00	0.15	0.0000	0.0000
Lube Oil Storage Tank (pressurized)	0.00	0.00	0.00	0.0000	0.0000
Lube Oil Rundown Tank (pressurized)	0.00	0.00	0.00	0.0000	0.0000
Machines					
Parts Cleaning Machine	?	?	?	?	?
Paint Cleaning Machine	?	?	?	?	?
Blowdowns					
ESD and Maintenance blowdowns	0.00	0.00	*1.640*	0.0000	0.0000
Fugitive Emissions					
Valves	?	?	?	?	?
Flanges	?	?	?	?	?
Total Emissions	100.27	135.56	85.110	4.5084	0.7829

Engine Emission Calculation Worksheet

Station 19

Emergency Generator Engine 1

Engine data

Annual use (maximum); hr./yr.	400	hr./yr.
Power; Hp	380	Hp
Power; Btu/hr. (@ 8026 (Btu/hr.)/Hp)	3049880	Btu/hr.
Fuel consumption; scf/hr. (@ 1040 Btu/scf)	2932.58	scf/hr.

Emissions data

NOx	22	g/Hp-hr.
CO	2	g/Hp-hr.
HC		
NMHC	1	g/Hp-hr.
SO2	0.1	grains/scf
PM	5	lb/MMscf

Emissions calulations

NOx	3.69	TPY
CO	0.34	TPY
HC		
NMHC	0.17	TPY
SO2	0.0084	TPY
NMHC	0.0029	TPY

FIXED ROOF TANK VOLATILE ORGANIC COMPOUND EMISSIONS (Rev. 6/90)

CLIENT: Florida Gas Transmission Co. DATE: 04/05/93

LOCATION: Station 19 JOB NO: N/A

CALCULATED USING AP-42, FOURTH EDITION SEP. 85, EQUATIONS 4.3-(1)&(2)

TANK PHYSICAL DATA		
TANK IDENTIFICATION NUMBER	Oil and Water Seperator 1	
EMISSION CONTROLS	None	
PERCENT EFFICIENCY		0 %
TANK PAINT COLOR	White	
TANK DIAMETER (FT), D		10.0
TANK HEIGHT (FT), H		15.0
PAINT FACTOR, FsubP		1.00
TANK CAPACITY (BBLS), VB		210
TANK CAPACITY (GALLONS), V		8820
ADJUSTMENT FACTOR FOR DIA., C		0.50
WEATHER DATA	Orlando, FL	
AVG. DAILY TEMP. CHANGE (DEG F), DeltaT		20.0
STORAGE TEMP. (DEG. F)		72.4
AVG. ATM. PRESS. (PSIA), PsubA		14.7
PRODUCT PHYSICAL DATA		
MATERIAL STORED	Condensate, oil, water	
MOLECULAR WEIGHT (#/#MOLE) MsubV		53.00
VAPOR PRESS. AT STG. TEMP. (DEG. F), P		2.80
PRODUCT FACTOR, KsubC (CRUDE 0.65, OTHER 1.0)		1.00
THROUGHPUT DATA		
DAYS IN SERVICE, DsubS		365
VAPOR SPACE HEIGHT (FT), VH		7.50
TANK THROUGHPUT (BBLS FOR DAYS IN SERVICE), TT		1000.00
FILLING RATE (BBLS/HR), FR		30.00
NUMBER OF TURNOVERS FOR DAYS IN SERVICE, N		4.8
TURNOVER FACTOR, KsubN		1.00

FIXED ROOF TANK BREATHING LOSS, # LsubB =
2.26x10-2*(MsubV)*(P/(PsubA-P)) EXP 0.68*(D)EXP 1.73*(VH)EXP 0.51*
(DeltaT)EXP 0.5*(FsubP)*(C)*(KsubC)*DsubS/365*(100-%eff)/100

FIXED ROOF TANK WORKING LOSS, # LsubW =
2.4 EXP-05*MsubV*P*V*N*KsubN*KsubC*(100-%eff)/100

VOLATILE ORGANIC COMPOUND LOSSES		BREATHING	WORKING	TOTAL
POUNDS FOR DAYS SERVICE	=	150	150	300
TONS FOR DAYS SERVICE	=	0.08	0.07	0.15
ANNUALIZED POUNDS	=	150	150	300
ANNUALIZED TONS	=	0.08	0.07	0.15
POUND/HR (AVG)	=	0.02	0.02	0.03
MAXIMUM EMISSION RATE (#/HR)	=	0.03	4.49	4.52

FIXED ROOF TANK VOLATILE ORGANIC COMPOUND EMISSIONS (Rev. 6/90)

CLIENT: Florida Gas Transmission Co. DATE: 04/05/93

LOCATION: Station 19 JOB NO: N/A

CALCULATED USING AP-42, FOURTH EDITION SEP. 85, EQUATIONS 4.3-(1)&(2)

TANK PHYSICAL DATA		
TANK IDENTIFICATION NUMBER	Oil and Water Seperator	2
EMISSION CONTROLS	None	
PERCENT EFFICIENCY		0 %
TANK PAINT COLOR	White	
TANK DIAMETER (FT), D		10.0
TANK HEIGHT (FT), H		15.0
PAINT FACTOR, FsubP		1.00
TANK CAPACITY (BBLS), VB		210
TANK CAPACITY (GALLONS), V		8820
ADJUSTMENT FACTOR FOR DIA., C		0.50
WEATHER DATA	Orlando, FL	
AVG. DAILY TEMP. CHANGE (DEG F), DeltaT		20.0
STORAGE TEMP. (DEG. F)		72.4
AVG. ATM. PRESS. (PSIA), PsubA		14.7
PRODUCT PHYSICAL DATA		
MATERIAL STORED	Condensate, oil, water	
MOLECULAR WEIGHT (#/#MOLE) MsubV		53.00
VAPOR PRESS. AT STG. TEMP. (DEG. F), P		2.80
PRODUCT FACTOR, KsubC (CRUDE 0.65, OTHER 1.0)		1.00
THROUGHPUT DATA		
DAYS IN SERVICE, DsubS		365
VAPOR SPACE HEIGHT (FT), VH		7.50
TANK THROUGHPUT (BBLS FOR DAYS IN SERVICE), TT		1000.00
FILLING RATE (BBLS/HR), FR		30.00
NUMBER OF TURNOVERS FOR DAYS IN SERVICE, N		4.8
TURNOVER FACTOR, KsubN		1.00

FIXED ROOF TANK BREATHING LOSS, # LsubB =
2.26x10-2*(MsubV)*(P/(PsubA-P)) EXP 0.68*(D)EXP 1.73*(VH)EXP 0.51*
(DeltaT)EXP 0.5*(FsubP)*(C)*(KsubC)*DsubS/365*(100-%eff)/100

FIXED ROOF TANK WORKING LOSS, # LsubW =
2.4 EXP-05*MsubV*P*V*N*KsubN*KsubC*(100-%eff)/100

VOLATILE ORGANIC COMPOUND LOSSES		BREATHING	WORKING	TOTAL
POUNDS FOR DAYS SERVICE	=	150	150	300
TONS FOR DAYS SERVICE	=	0.08	0.07	0.15
ANNUALIZED POUNDS	=	150	150	300
ANNUALIZED TONS	=	0.08	0.07	0.15
POUND/HR (AVG)	=	0.02	0.02	0.03
MAXIMUM EMISSION RATE (#/HR)	=	0.03	4.49	4.52

Calculation of annual HC emissions from blowdowns
(for a typical station)

unmetered gas released (due to blowdowns)	300	Mscf/mo.
unmetered gas released (due to blowdowns)	3.6	MMscf/yr.
unmetered gas released (due to blowdowns) (@21.98 scf/lb)	0.16	MMlb/yr.
unmetered gas released (due to blowdowns) (@21.98 scf/lb)	81.89	TPY
VOCs released (due to blowdowns) (@2% VOCs)	1.64	TPY

FGTC COMPRESSOR STATION 19
CURRENT INVENTORY

UNIT	Included In Most Recent Operating Permit As	Required to be In Title V Operating Permit	In Compliance with Current Regulations	Information Required For New Permit Application
DR 412-KVSR	Engine 1	X	Yes	None
DR 412-KVSR	Engine 2	X	Yes	None
Emergency Generator # 1	Omitted	X	No	BTU/hp-hr, Emission rates for NOx, CO, NM-NE HC, SO2, and PM
Oil and Water Sep. # 1	Omitted	X	No	Emission rate for NM-NE HC, Throughput
Oil and Water Sep. # 2	Omitted	X	No	Emission rate for NM-NE HC, Throughput
Lube Oil Storage # 1	Omitted	X	No	Emission rate for NM-NE HC, Throughput, Fill rate
Lube Oil Rundown Tank # 1	Omitted	X	No	Emission rate for NM-NE HC, Throughput, Fill rate
Part Cleaner # 1	Omitted	X	No	Emission rate for VOC's, Amount of solvent used
Paint Cleaner # 1	Omitted	X	No	Emission rate for VOC's, Amount of solvent used
ESD & Blowdown Stacks	Omitted	X	No	Emission rates, Volume B/D, Stack information

} no emissions, under pressure 715psi

↳ 3 stacks: 1) suction
2) discharge
3) compressors

(all 3 have silencers)

~ 6 "ESD" blowdowns/yr

~ 15 "maintenance" blowdowns/yr

FGTC
NATURAL GAS COMPRESSION FACILITY
STATION 19
MELBOURNE, FLORIDA

PURPOSE OF ENGINES: THE ENGINES ACT AS PRIME MOVERS FOR THE NATURAL GAS COMPRESSORS

EMISSION SOURCE	CURRENT PERMIT STATUS	SOURCE ID	SERIAL NUMBER	HP	BTU/HP*HR	PERMIT EMISSION RATES (TPY) NOX	NMHC	CO	SO2	PM
ENGINE # 1	PERMITTED UNIT		412KVSRA229AP	2500	7300	48.29	41.05	67.61	2.25	0.39
ENGINE # 2	PERMITTED UNIT		412KVSRA228AP	2500	7300	48.29	41.05	67.61	2.25	0.39
						96.58	82.1	135.22	4.5	0.78

Phase I Station Characteristics

27-May-92
CS19.WK1

Compressor Station: Number 19
Name: Melbourne
County: Brevard
Nearest City: Melbourne
Compressor Supervisor: Riley Jackson
Mailing Address: 3400 Ranch Road
Melbourne, FL 32904
Telephone: 407-723-8998
Latitude: 28-02-30
Longitude: 89-42-30
UTM Zone: 17
UTM Easting: 528.67 km
UTM Northing: 3,101.64 km
Elevation (ft): 28

Phase I Engine Characteristics

Engine Identification
Permit Number
Serial Number
Operating Time
Hours/Day
Days/Week
Weeks/Year
Engine Type
Date of Installation
Engine Make
Engine Model
Horsepower Rating
Air Charging
Exhaust Temperature (F)
Mass Flow Rate (lbs/hr) (a)
Volumetric Flow Rate (acfm)
Volumetric Flow Rate (dscfm)
Exit Velocity (af/s)
Water Vapor Content (%)
Ave. Fuel Consumption (MMCF/Hr) (b)
Max. Fuel Consumption (MMCF/Hr) (b)
Specific Fuel Consump. (BTU/bhp-hr)
Maximum Heat Input (MMBTU/Hr)

Stack Height (ft)
Stack Diameter (in)
Stack to Building Offset (ft)
Building Height (ft) (c)
Building Length (ft) (c)
Building Width (ft) (c)

Phase I Fuel Characteristics

Fuel Type
Heating Value (BTU/CF)
Heat Capacity (BTU/lb)
Density (lb/cubic ft)
Percent Sulfur (%) (d)
Percent Ash (%)

27-May-92
CS19.WK1

Phase I Emissions Rates by Engine for Station 19
Engine Identification

Grams/BHP-Hour

NOX	0.000
CO	0.000
NMHC	0.000
SO2 (e)	0.000
PM (f)	0.000

Pounds/Hour

NOX	0.00
CO	0.00
NMHC	0.00
SO2	0.00
PM	0.00

Tons/Year

NOX	0.00
CO	0.00
NMHC	0.00
SO2	0.00
PM	0.00

Phase I Emissions Rates for Total Station

Grams/BHP-Hour

NOX	0.000
CO	0.000
NMHC	0.000
SO2	0.000
PM	0.000

Pounds/Hour

NOX	0.00
CO	0.00
NMHC	0.00
SO2	0.00
PM	0.00

Tons/Year

NOX	0.00
CO	0.00
NMHC	0.00
SO2	0.00
PM	0.00

SOURCE CLASSIFICATION WITH RESPECT TO PSD

MINOR SOURCE

Notes:
(a) Wet mass flow (@ 60 F, 14.7 psi).
(b) Based on heating value of fuel gas.
(c) All engines enclosed in one building.
(d) Percent by weight.
(e) Based on 10 grains/SCF.
(f) Based AP-42 factor of 5 lbs/MMSCF.

Phase II Station Characteristics

27-May-92
CS19.WK1

Compressor Station: Number 19
Name: Melbourne
County: Brevard
Nearest City: Melbourne
Compressor Supervisor: Riley Jackson
Mailing Address: 3400 Ranch Road
Melbourne, FL 32904
Telephone: 407-723-8998
Latitude: 28-02-30
Longitude: 89-42-30
UTM Zone: 17
UTM Easting: 528.67 km
UTM Northing: 3,101.64 km
Elevation (ft): 28

Phase II Engine Characteristics

Engine Identification	1	2
Permit Number		
Serial Number	412KVSRA229AP	412KVSRA228AP
Operating Time		
Hours/Day	24	24
Days/Week	7	7
Weeks/Year	52	52
Engine Type	Recip	Recip
Date of Installation	1991	1991
Engine Make	Dresser-Rand	Dresser-Rand
Engine Model	412-KVSR A	412-KVSR A
Horsepower Rating	~~2500~~ 2600	~~2500~~ 2600
Air Charging	Turbo.	Turbo.
Exhaust Temperature (F)	695	695
Mass Flow Rate (lbs/hr) (a)	29622	29622
Volumetric Flow Rate (acfm)	14355	14355
Volumetric Flow Rate (dscfm)	6036	6036
dt Velocity (af/s)	109.66	109.66
ater Vapor Content (%)	8	8
Ave. Fuel Consumption (MMCF/Hr) (b)	0.0177	0.0177
Max. Fuel Consumption (MMCF/Hr) (b)	0.0177	0.0177
Specific Fuel Consump. (BTU/bhp-hr)	7300	7800
Maximum Heat Input (MMBTU/Hr)	18.25	18.25
Stack Height (ft)	63	63
Stack Diameter (in)	20	20
Stack to Building Offset (ft)	17.00	17.00
Building Height (ft) (c)	32.42	32.42
Building Length (ft) (c)	100.00	100.00
Building Width (ft) (c)	40.00	40.00

Phase II Fuel Characteristics

Fuel Type	N.G.	N.G.
Heating Value (BTU/CF)	1030	1030
Heat Capacity (BTU/lb)	22637	22637
Density (lb/cubic ft)	0.0455	0.0455
Percent Sulfur (%) (d)	0.031	0.031
Percent Ash (%)	N/A	N/A

27-May-92
CS19.WK1

Phase II Emissions Rates by Engine for Station 19

Engine Identification		1	2
Grams/BHP-Hour			
	NOX	2.000	2.000
	CO	2.800	2.800
	NMHC	1.700	1.700
	SO2 (e)	0.093	0.093
	PM (f)	0.016	0.016
Pounds/Hour			
	NOX	11.03	11.03
	CO	15.43	15.43
	NMHC	9.37	9.37
	SO2	0.51	0.51
	PM	0.09	0.09
Tons/Year			
	NOX	48.29	48.29
	CO	67.61	67.61
	NMHC	41.05	41.05
	SO2	2.25	2.25
	PM	0.39	0.39

Phase II Emissions Rates for Total Station

Grams/BHP-Hour		
	NOX	2.000
	CO	2.800
	NMHC	1.700
	SO2	0.093
	PM	0.016
Pounds/Hour		
	NOX	22.05
	CO	30.87
	NMHC	18.74
	SO2	1.03
	PM	0.18
Tons/Year		SOURCE CLASSIFICATION WITH RESPECT TO PSD
	NOX	96.58
	CO	135.21 MINOR SOURCE
	NMHC	82.09
	SO2	4.49
	PM	0.77

Notes:
(a) Wet mass flow (@ 60 F, 14.7 psi).
(b) Based on heating value of fuel gas.
(c) All engines enclosed in one building.
(d) Percent by weight.
(e) Based on 10 grains/SCF.
(f) Based AP-42 factor of 5 lbs/MMSCF.

C
TURAL GAS COMPRESSION FACILITY
STATION 19
MELBOURNE, FLORIDA

PURPOSE OF EMERGENCY GENERATOR: THE EMERGENCY GENERATOR USED IN THE CASES OF POWER FAILURE

EMISSION SOURCE	CURRENT PERMIT STATUS	SOURCE ID	SERIAL NUMBER	HP	BTU/HP*HR	PERMIT EMISSION RATES (TPY) NOX	NMHC	CO	SO2	PM
EMERGENCY GENERATOR # 1	NOT PERMITTED		109934	385	8026	3.69	0.17	0.34	0.0084	0.0029
						0	0	0	0	0

Florida Gas Transmission Company

P. O. Box 945100 Maitland, Florida 32794-5100 (407) 875-5800

June 29, 1993

VIA FEDERAL EXPRESS
(overnight delivery)

Mr. Clair Fancy, P.E.
Chief, Bureau of Air Regulation
Florida Department of Environmental Regulation
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Dear Mr. Fancy:

RE: Request for Amendments and Extensions to Air Construction Permits

Permit No. AC57-188869
Florida Gas Transmission Company, Station 12
Munson, Santa Rosa County, Florida

this file contains all the attachments related to this correspondence.

Permit No. AC67-189220
Florida Gas Transmission Company, Station 13
Caryville, Washington County, Florida

Permit No. AC20-189438
Florida Gas Transmission Company, Station 14
Quincy, Gadsden County, Florida

Permit No. AC62-189439
Florida Gas Transmission Company, Station 15
Perry, Taylor County, Florida

Permit No. AC04-189454
Florida Gas Transmission Company, Station 16
Brooker, Bradford County, Florida

Permit No. AC42-189455
Florida Gas Transmission Company, Station 17
Salt Springs, Marion County, Florida

Permit No. AC48-189456
Florida Gas Transmission Company, Station 18
Orlando, Orange County, Florida

Permit No. AC05-189665
Florida Gas Transmission Company, Station 19
Melbourne, Brevard County, Florida

Permit No. AC56-189457
Florida Gas Transmission Company, Station 20
Ft. Pierce, St. Lucie County, Florida

On May 27, 1993, Florida Gas Transmission Company (FGT) submitted Certificates of Completion of Construction to the appropriate district offices to obtain operating permits for

Department of Environmental Regulation

Routing and Transmittal Slip

To: (Name, Office, Location) ① Isaac ② Patty - file

1. ~~Preston~~ Lewis, P.E. III
2. ARM BAR Permit
3. TL II
4.

Remarks:

RECEIVED

JUN 11 1993

Division of Air
Resources Management

From: Alan Zahn

Date 6/10/93

Phone

Florida Department of Environmental Regulation

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

Lawton Chiles, Governor ~~Carol M. Browner, Secretary~~

COMPLETENESS SUMMARY AIR POLLUTION SOURCES

SOURCE NAME: Station 18 (AC48-189456)
Station 17 (AC42-189455)
Station 19 (AC05-189665)

DATE RECEIVED: 6/1/93

NAME: Alan Weatherford, Compliance Environmentalist

DATE REVIEWED: 6/9/92

ADDRESS: Florida Gas Transmission Co.
P.O. Box 945100
Maitland, Fl 32794-5100

REVIEWED BY: John Turner
(AO48-232110)
(AO42-232109)
(AO05-232111)

Your application for a permit to operate this referenced project has been received and reviewed for completeness. The following items are needed from your professional engineer to complete your application.

1. Submit the heat input rates (MMBTU/hr) during the compliance testing. If any permit limit is exceeded, submit evidence the construction permit has been modified such that compliance is shown. Copy Mr. Preston Lewis, DER Tallahassee, on the application package and advise him of any change in engine size, heat input rate, potential emissions or other factor.

2. Submit page two of the revised construction application signed by the professional engineer.

Pursuant to Section 120.60(2) F.S., the Department may deny an application if the applicant, after receiving timely notice fails to correct errors, omissions or supply additional information within a reasonable period of time.

If you have any questions, please call John Turner at 407/894-7555 or write to the above address.

Sincerely,

Alan D. Zahm, P.E.
Supervisor, Permitting
Air Resources Management

10 June 93
Date

AZ/jt

cc: Barry Andrews, P.E.
Preston Lewis, P.E.

DER Form 17-1.202(2)

Florida Department of Environmental Regulation
Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400
Lawton Chiles, Governor
Carol M. Browner, Secretary

February 12, 1993

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Alan Weatherford
Compliance Environmentalist
Florida Gas Transmission Company
P.O. Box 945100
Maitland, Florida 32794-5100

Dear Mr. Weatherford:

Re: Permits AC57-188869, AC67-189220, AC20-189438, AC62-189439, AC04-189454, AC42-189455, AC48-189456, AC05-189665 and AC56-189457; Permit Amendment Request

The Department is in receipt of your letter dated January 18, 1993, requesting an amendment of the specific condition regarding test method for measuring VOC emissions for each one of the above referenced permits. The Department has reviewed your request and has determined to change Specific Condition No. 10 for each one of the permits as follows:

Specific Condition No. 10:

FROM: Initial compliance with the volatile organic compound emission (VOC) limits will be demonstrated by EPA Method 25, thereafter, compliance with the VOC emission limits will be assumed, provided the CO allowable emission rate is achieved.

TO: Initial compliance with the volatile organic compound emission (VOC) limits will be demonstrated by EPA Method 25A, thereafter, compliance with the VOC emission limits will be assumed, provided the CO allowable emission rate is achieved.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400. Petitions filed by the permit applicant and the parties listed below must be filed within

14 days of receipt of this intent. Petitions filed by other persons must be filed within 14 days of publication of the public notice or within 14 days of their receipt of this intent, whichever first occurs. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

The Petition shall contain the following information:

(a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed;
(b) A statement of how and when each petitioner received notice of the Department's action or proposed action;
(c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;
(d) A statement of the material facts disputed by Petitioner, if any;
(e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;
(f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and
(g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this intent. Persons whose substantial interests will be affected by any decision of the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of receipt of this intent in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

A copy of this letter shall be attached to the above mentioned permit and shall become a part of that permit.

Sincerely,

Howard L. Rhodes

Howard L. Rhodes
Director
Division of Air Resources
Management

HLR/TH/plm

Attachment to be Incorporated:
Mr. Alan Weatherford's letter of December 7, 1992

cc: Ed Middleswart, NWD
Charles Collins, CD
Isidore Goldman, SED
Andy Kutyna, NED

Florida Gas Transmission Company

P. O. Box 945100 Maitland, Florida 32794-5100 (407) 875-5800

Certified Mail

December 7 , 1992

Mr. Clair Fancy
Florida Department of
Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Dear Mr. Fancy:

RE: Request for Modification to Permits

Permit No. AC57-188869
Florida Gas Transmission Company, Station 12
Munson, Santa Rosa County, Florida

Permit No. AC67-189220
Florida Gas Transmission Company, Station 13
Caryville, Washington County, Florida

Permit No. AC20-189438
Florida Gas Transmission Company, Station 14
Quincy, Gadsden County, Florida

Permit No. AC62-189439
Florida Gas Transmission Company, Station 15
Perry, Taylor County, Florida

Permit No. AC04-189454
Florida Gas Transmission Company, Station 16
Brooker, Bradford County, Florida

Permit No. AC42-189455
Florida Gas Transmission Company, Station 17
Salt Springs, Marion County, Florida

Permit No. AC48-189456
Florida Gas Transmission Company, Station 18
Orlando, Orange County, Florida

Permit No. Ac05-189665
Florida Gas Transmission Company, Station 19
Melbourne, Brevard County, Florida

Permit No. AC56-189457
Florida Gas Transmission Company, Station 20
Ft. Pierce, St. Lucie County, Florida

Florida Gas Transmission Company (FGT) requests that the permits referenced above be modified as follows:

Modify Specific Condition 10 which currently reads

> "Initial compliance with the volatile organic compound (VOC) emissions limits will be demonstrated by EPA Method 25, thereafter, compliance with the VOC emission limits will be assumed, provided the CO allowable emission rate is achieved.",

so that it reads

> "Initial compliance with the volatile organic compound (VOC) emissions limits will be demonstrated by EPA Method 25A, thereafter, compliance with the VOC emission limits will be assumed, provided the CO allowable emission rate is achieved."

FGT has supplied your office with evidence supporting our contention that the use of Method 25 to measure VOC emissions in compressor engines is questionable. We believe the evidence supports the use of Method 25A. Mr. Barry Andrews, ENSR Consulting & Engineering, has spoken to you about this on FGT's behalf.

Since no specific test method is listed for our source (i.e. NSPS or 17-2.700), we ask that this change be made through a simple permit modification.

Please call me at 407-875-5816 if you have any questions.

Sincerely,

Allan Weatherford

Allan Weatherford
Compliance Environmentalist

bc
aw1207cf

cc: Chuck Truby
Raymond Young
Fred Griffin
Barry Andrews, ENSR

P 230 524 364

Receipt for Certified Mail

No Insurance Coverage Provided
Do not use for International Mail
(See Reverse)

UNITED STATES POSTAL SERVICE

Sent to	Carl Schulz
Street and No.	HA GAS Trans
P.O., State and ZIP Code	Houston TX
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, and Addressee's Address	
TOTAL Postage & Fees	$
Postmark or Date	6-28-93

AC 05-229322

PS Form 3800, June 1991

Is your RETURN ADDRESS completed on the reverse side?

SENDER:

- Complete items 1 and/or 2 for additional services.
- Complete items 3, and 4a & b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):

1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:
CARL D. Schulz, VP
Project Mgmt. Services
HA GAS Transmission
P O BOX 1188
Houston, TX 77251-1188

4a. Article Number
P 230 524 364

4b. Service Type
☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail ☐ Return Receipt for Merchandise

7. Date of Delivery
JUL 1 1993

5. Signature (Addressee)

6. Signature (Agent)

8. Addressee's Address (Only if requested and fee is paid)

PS Form 3811, December 1991 ☆U.S. GPO: 1992—323-402 **DOMESTIC RETURN RECEIPT**

Thank you for using Return Receipt Service.

Florida Department of Environmental Regulation

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

Lawton Chiles, Governor

Virginia B. Wetherell, Secretary

June 23, 1993

CERTIFIED MAIL-RETURN RECEIPT REQUESTED

Mr. Carl D. Schulz, Vice President
Project Management Services
Florida Gas Transmission Company
Post Office Box 1188
Houston, Texas 77251-1188

Dear Mr. Schulz:

Attached is one copy of the Technical Evaluation and Preliminary Determination and proposed permit to install one natural gas fired engine in Melbourne, Brevard County, Florida.

Please submit any written comments you wish to have considered concerning the Department's proposed action to Mr. Preston Lewis of the Bureau of Air Regulation.

Sincerely,

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

CHF/TH/kt

Attachments

cc: C. Collins, C District
B. Andrews, P.E., ENSR

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

CERTIFIED MAIL

In the Matter of an
Application for Permit by: DER File No. AC 05-229322

Florida Gas Transmission Company
Post Office Box 1188
Houston, Texas 77251-1188
_____/

INTENT TO ISSUE

The Department of Environmental Regulation gives notice of its intent to issue an air construction permit (copy attached) for the proposed project as detailed in the application specified above, for the reasons stated in the attached Technical Evaluation and Preliminary Determination.

The applicant, Florida Gas Transmission, applied on April 7, 1993, to the Department of Environmental Regulation for a permit to construct one natural gas fired turbine. The proposed source will be located at the applicant's existing facility in Melbourne, Brevard County, Florida.

The Department has permitting jurisdiction under the provisions of Chapter 403, Florida Statutes and Florida Administrative Code (F.A.C.) Chapters 17-269 through 297 and 17-4. The project is not exempt from permitting procedures. The Department has determined that a construction permit is required for the proposed work.

Pursuant to Section 403.815, Florida Statutes and Rule 17-103.150, F.A.C., you (the applicant) are required to publish at your own expense the enclosed Notice of Intent to Issue Permit. The notice shall be published one time only within 30 days in the legal ad section of a newspaper of general circulation in the area affected. For the purpose of this rule, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in the county where the activity is to take place. The applicant shall provide proof of publication to the Department's Bureau of Air Regulation, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, within seven days of publication. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit.

The Department will issue the permit with the attached conditions unless a petition for an administrative proceeding (hearing) is filed pursuant to the provisions of Section 120.57, F.S.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400. Petitions filed by the permit applicant and the parties listed below must be filed within 14 days of receipt of this intent. Petitions filed by other persons must be filed within 14 days of publication of the public notice or within 14 days of their receipt of this intent, whichever first occurs. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

The Petition shall contain the following information;

(a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed;
(b) A statement of how and when each petitioner received notice of the Department's action or proposed action;
(c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;
(d) A statement of the material facts disputed by Petitioner, if any;
(e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;
(f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and
(g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this intent. Persons whose substantial interests will be affected by any decision of the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of receipt of this intent in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a

waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

for Johnie Brown

C. H. Fancy, P.E., Chief
Bureau of Air Regulation
2600 Blair Stone Road
Tallahassee, Florida 32399
904-488-1344

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this INTENT TO ISSUE and all copies were mailed by certified mail before the close of business on 6-28-93 to the listed persons.

Clerk Stamp

FILING AND ACKNOWLEDGMENT
FILED, on this date, pursuant to §120.52(11), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Kris Doben 6-28-93
Clerk Date

Copies furnished to:

C. Collins, C District
B. Andrews, P.E., ENSR

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION
NOTICE OF INTENT TO ISSUE PERMIT

The Department of Environmental Regulation gives notice of its intent to issue a permit to Florida Gas Transmission Company, Post Office Box 1188, Houston, Texas 77251-1188, to install one natural gas fired turbine. The Company's facility is located 4.5 miles west of the town of Melbourne, in Brevard County, Florida. Best Available Control Technology (BACT) was not required. The Department is issuing this Intent to Issue for the reasons stated in the Technical Evaluation and Preliminary Determination.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, within 14 days of publication of this notice. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

The Petition shall contain the following information; (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed; (b) A statement of how and when each petitioner received notice of the Department's action or proposed action; (c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action; (d) A statement of the material facts disputed by Petitioner, if any; (e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action; (f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and (g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this Notice. Persons whose substantial interests will be affected by any decision of the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of publication of this notice in the Office of General Counsel at the above address of the

Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

The application is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:

Department of Environmental Regulation
Bureau of Air Regulation
111 S. Magnolia Park Courtyard
Tallahassee, Florida

Department of Environmental Regulation
Central District Office
3319 Maguire Blvd., Suite 232
Orlando, Florida 32803-3767

Any person may send written comments on the proposed action to Mr. Preston Lewis at the Department's Tallahassee address. All comments received within 14 days of the publication of this notice will be considered in the Department's final determination.

TECHNICAL EVALUATION
AND
PRELIMINARY DETERMINATION

FLORIDA GAS TRANSMISSION COMPANY

Brevard County
Melbourne, Florida
Station No. 19

Natural Gas Compressor Engine
Permit No. AC 05-229322

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

June 23, 1993

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: April 7, 1993

Application Completeness Date: April 7, 1993

II. FACILITY INFORMATION

II.1 FACILITY LOCATION

Florida Gas Transmission Company's (FGTC) facility is located 4.5 west of Melbourne in Brevard County, Florida. The UTM coordinates are, 528.67 Km E and 3101.64 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

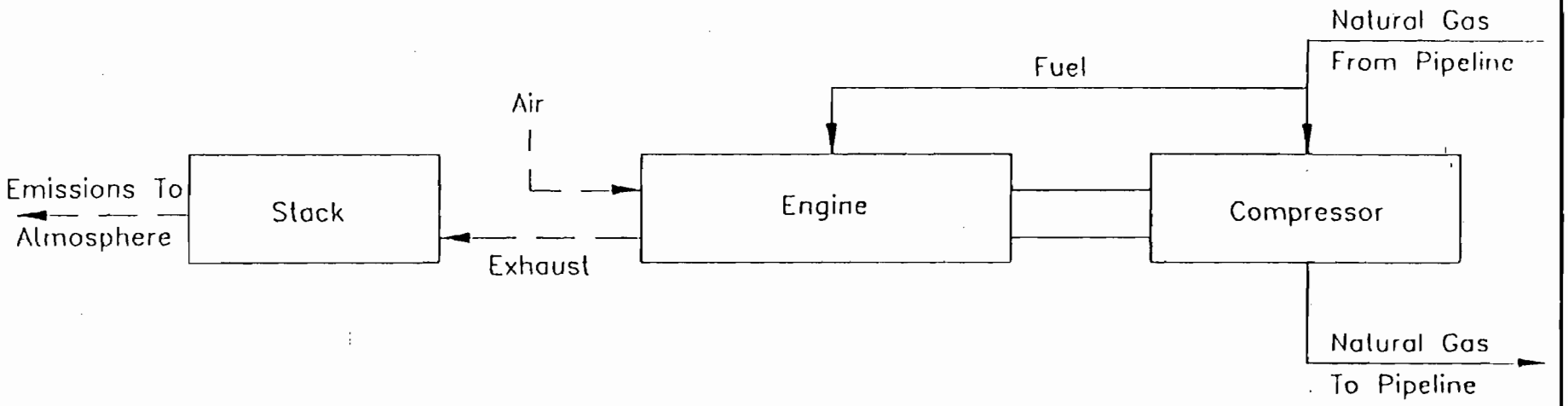
II.3 FACILITY CATEGORY

The FGTC site, in Melbourne, is classified as a major emitting facility for nitrogen oxides (NOx) and carbon monoxide (CO) . The proposed project will increase NOx emissions by 96.58 tons per year and CO emissions by 135.2 tons per year. The total permitted emissions for this facility shall not exceed 196.83 tons NOx per year and 270.75 tons CO per year.

III. PROJECT DESCRIPTION

The FGTC proposes to install one natural gas fired engine-compressor unit Dresser Rand Model (TCDV-10). The engine has power cylinder and is rated at 5000 bhp at 330 revolutions per minute (rpm). The engine is turbocharged increasing the air inlet manifold pressure, which allows the engine to operate at a high air-to-fuel ratio. This turbocharging produces more power output from the engine than would otherwise be attained without having to use a larger size engine. A flow diagram of the integral engine compressor unit is presented in the attached figure 2-1.

CE679259
(DALLAS/HPCL21)



ENSR™
ENSR CONSULTING & ENGINEERING

FIGURE 2-1
PROCESS FLOW DIAGRAM
OF AN
ENGINE-COMPRESSOR UNIT

DRAWN: DC/SH	DATE: 11-6-92	PROJECT NUMBER:

III. 1 Background Information

The FGTC existing compressor station consists of two (2) 2,500 bhp natural gas fired reciprocating internal combustion (IC) engines and a 380 bhp generator. These engines were installed in 1991. The existing engines are not being 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 proposed new engine will be used to drive a gas compressor that is part of a new gas transmission line that will transport natural gas from source wells in Texas and Louisiana for delivery through Florida. 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 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 applicable 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 (Brevard County) designated attainment for all criteria pollutants in accordance with Rule 17-275.400.

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 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. 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.

VI. SOURCE IMPACT ANALYSIS

The proposed engine will incorporate "lean-burn" technology, which is state-of-the-art design for minimizing air pollutant concentration in the exhaust gases from gas-fired reciprocating IC engines. In the lean-burn design, a small, fuel-rich mixture is

combusted in a pre-ignition chamber. The hot combustion gases from the pre-ignition chamber then pass to the main combustion chamber, where they ignite a lean mixture of fuel. Since most of the fuel entering the engine is burned in a lean state (i.e., high ratio of air to fuel), exhaust NOx, emissions are minimized.

VI.2 EMISSION LIMITATIONS

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 (SO_2) from the burning of natural gas . Potential new VOC emissions from the station include fugitive emissions from new valves and flanger 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

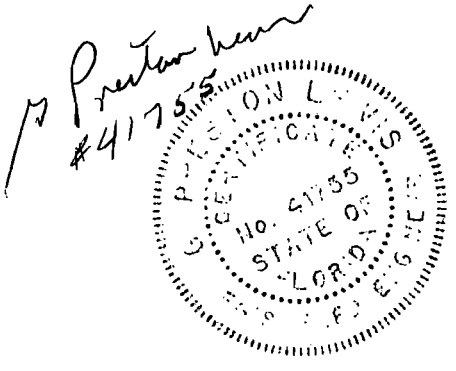
Pollutant	Maximum Potential Emissions (lbs/hr)	(TPY)
Nitrogen Oxides	22.05	96.58
Carbon Monoxide	30.87	135.21
Volatile Organic Compounds (non-methane)	8.82	38.63
Particulate Matter (TSP)	0.17	0.74
Particulate Matter (PM_{10})	0.17	0.74
Sulfur Dioxide	0.94	4.12
Fugitive (VOC Emissions)		0.12

VI. 3. 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.

VII. 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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VI. 3. AIR QUALITY ANALYSIS

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VII. CONCLUSION

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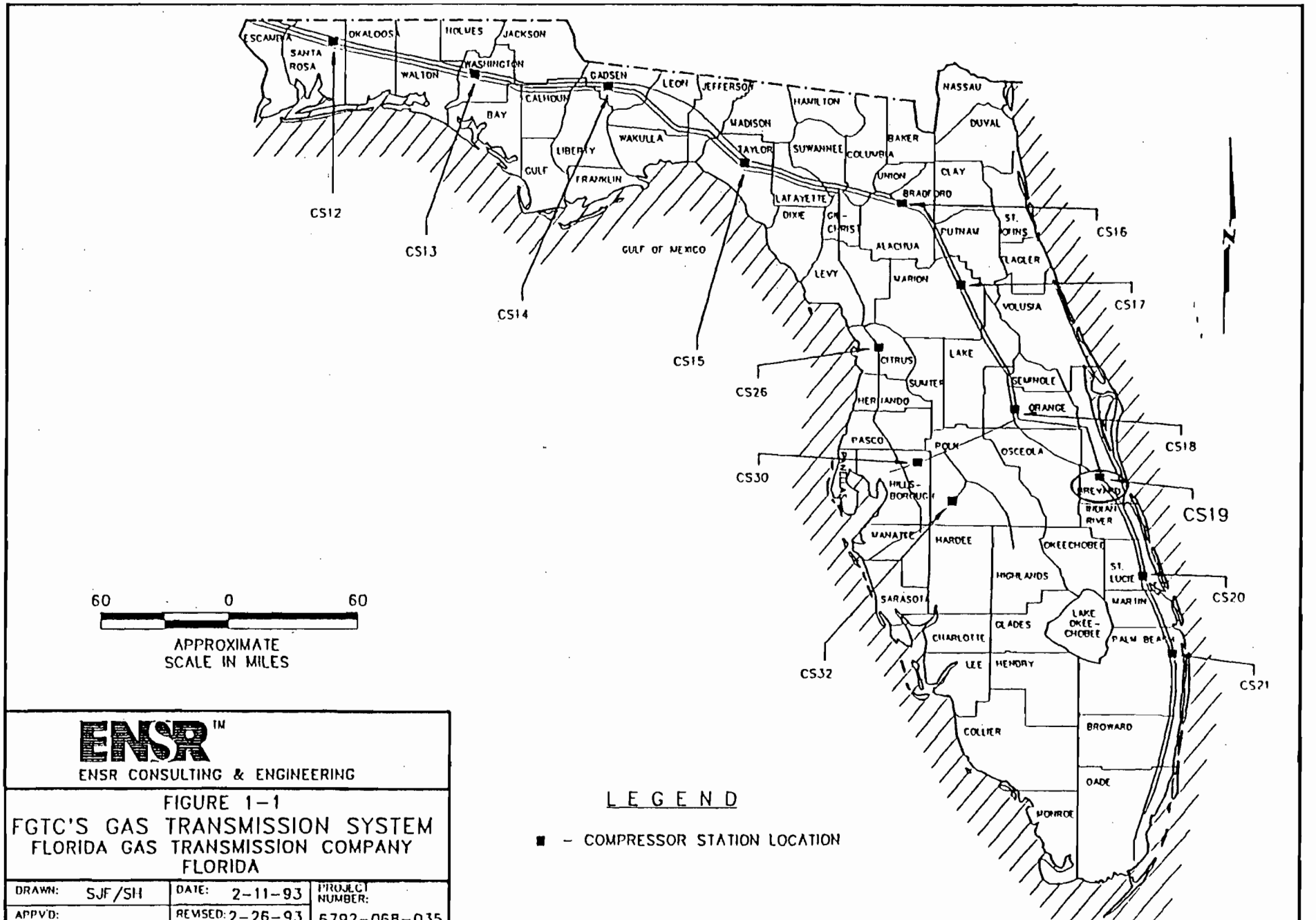
J. Preston Lewis
#4175

CE679264
12-15-92



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ENSR CONSULTING & ENGINEERING

FIGURE 1-1
FGTC'S GAS TRANSMISSION SYSTEM
FLORIDA GAS TRANSMISSION COMPANY
FLORIDA

DRAWN: SJF/SH	DATE: 2-11-93	PROJECT NUMBER:
APPV'D:	REVISED: 2-26-93	6792-068-035

TABLE II

Annual (TPY) Emission Levels
ENRON, Phase III
Compressor Station No. 19

SOURCE ID	DESCRIPTION	NO_x	CO	VOC (NM/NEHC)	SO_2	PM
EXISTING FACILITY						
	COMPRESSOR ENGINES:					
1901	2500 bhp Recip. Engine	48.29	67.61	41.05	2.25	0.39
1902	2500 bhp Recip. Engine	48.29	67.61	41.05	2.25	0.39
Generator	380 bhp	3.67	0.33	0.17	0.01	<0.01
	OTHER SOURCES: *	—	—	2.28	—	—
EXISTING TOTAL		100.25	135.55	84.55	4.51	0.78
PROJECT RELATED						
	COMPRESSOR ENGINE:					
1903	5000 bhp Recip. Engine	96.58	135.2	38.6	4.12	0.74
	FUGITIVE	—	—	0.12	—	—
PROJECT TOTAL		96.58	135.2	38.72	4.12	0.74
STATION TOTAL **		196.83	270.75	123.27	8.63	1.52

* - Other Sources includes; Ancillary equipment, storage tanks and fugitive equipment leaks.

** - STATION TOTAL = EXISTING + PROJECT

Florida Department of Environmental Regulation

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

Lawton Chiles, Governor

Virginia B. Wetherell, Secretary

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

Permit Number: AC 05-229322
Expiration Date: June 30, 1995
County: Brevard
Latitude/Longitude: 28°02'30"N
80°42'30"W
Project: Natural Gas Compressor Engines (ID No. 1903)
Station No. 19

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 two natural gas fired engines to be located 4.5 miles west of the town of Melbourne. The UTM coordinates are Zone 17, 528.67 km East and 3101.64 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. DER Form 17-1.202(1) Application to Operate/Construct Air Pollution Sources.

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.141, 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.

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, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.

3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any 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 of 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.

4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgement 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.

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.

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.

GENERAL CONDITIONS:

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 any 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.

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.

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.

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.

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.

GENERAL CONDITIONS:

11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 17-4.120 and 17-730.300, 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.

12. This permit or a copy thereof shall be kept at the work site of the permitted activity.

13. 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 for 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:

        - 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.

14. 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 5,000 bhp/hr engine shall not exceed the emission rates as follows:

Pollutant	lbs/hr	tons/yr	Emission Factor
Nitrogen Oxides	22.05	96.58	2.0 g/bhp-hr
Carbon Monoxide	30.87	135.21	2.8 g/bhp-hr
Volatile Organic Compounds (non-methane)	8.82	38.63	0.8 g/bhp-hr
Particulate Matter (TSP)	0.17	0.74	5 lbs/MMscf
Particulate Matter (PM_{10})	0.17	0.74	5 lbs/MMscf
Sulfur Dioxide	0.94	4.12	10 gr/100scf

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.

5. The permitted operating parameters and utilization rates for this 5000 bhp/hr natural gas compressor engine shall not exceed the values stated in the application. The parameters include, but are not limited to:

- Maximum natural gas consumption shall not exceed 0.0368 MMCF/h
- Maximum heat input shall not exceed 38.3 MMBtu/hr

6. Any change in the method of operation, equipment or operating hours shall be submitted to the DER's Bureau of Air Regulation and Central District offices.

7. Any other operating parameters established during compliance testing and/or inspection that will ensure the proper operation of this facility shall be included in the operating permit.

Compliance Determination

8. 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, by the following reference methods as desribed in 40 CFR 60, Appendix A (July 1992 version) and adopted by reference in Rule 17-297, F.A.C.

SPECIFIC CONDITION:

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

9. Compliance with the SO_2 emission limit can be determined by calculations based on fuel analysis using ASTM D1072-80, D3031-81, D4084-82, or D3246-81 for sulfur content of gaseous fuels.

10. Initial compliance with the volatile organic compound (VOC) emissions limits will be demonstrated by EPA Method 25A, thereafter, except as provided in Rule 17-297.340(2), compliance with the VOC emission limits will be assumed, provided the CO allowable emission rate is achieved.

11. 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 Central District office will be notified in writing at least 15 days in advance of the compliance test. The source shall operate between 95% and 100% of permitted capacity during the compliance test. Compliance test results shall be submitted to the Central District office no later than 45 days after completion.

12. The permittee shall annually perform a visual inspection of the compressor engine, fitters, associated piping system for rust spots cracks, leaks and odors. Also, ensure that safety valves and the control device/stack are in proper order and working properly. The permittee shall document the findings and corrective action taken.

13. When the Department, after investigation, has good reason (such as odor complaints, increased visible emissions, excess emissions, etc.), to conclude that any applicable emission standard contained in this permit is being violated, it may require the owner or operator of the facility to conduct compliance tests which identify the nature and quantity of air pollutant emissions from the facility and to provide a report of said tests to the Department (F.A.C. Rule 17-297.340(2)).

SPECIFIC CONDITIONS:

Rule Requirements

14. This source shall comply with all applicable provisions of Chapter 403, Florida Statutes, Chapters 17-209 through 17-297, Florida Administrative Code and 40 CFR 60 (July 1992 version).

15. Issuance of this permit does not relieve the facility owner or operator from compliance with any applicable federal, state, or local permitting requirements and regulations (F.A.C. Rule 17-2.210.300(1)).

16. This source shall comply with all applicable provisions of F.A.C. Chapter 17-297 Stationary Sources-Emissions Monitoring.

17. No person shall cause, suffer, allow, or permit the discharge of air pollutants which cause or contribute to an objectionable odor pursuant to F.A.C. Rule 17-296.320(2). Objectionable odor is defined as 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 pursuant to F.A.C. Rule 17-296.200(123).

18. 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: fuel usage, hours of operation, air to fuel ratio, air emissions limits, test results, etc. Annual reports shall be sent to the Department's Central District office.

19. 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).

20. An application for an operation permit must be submitted to the Central District office at least 90 days prior to the expiration date of this construction permit or within 45 days after completion of compliance testing, whichever occurs first. 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. Rule 17-4.220).

SPECIFIC CONDITIONS:

Issued this _____ day

of _____, 1993

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION

_____

Howard L. Rhodes, Director
Division of Air Resources
Management

CM: P 446 688 053
4-2-91
Maitland, FL

File Copy

Florida Gas Transmission Company

P. O. Box 945100 Maitland, Florida 32794-5100 (407) 875-5800

Certified Mail

April 01, 1991

Mr. Barry Andrews
Florida Department of Environmental Regulation
Division of Air Resources Management
Bureau of Air Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Fl 32399-2400

Dear Mr. Andrews:

Re: Intent to Issue Permit
Proof of Publication - Air Permit
Florida Gas Transmission Company
Compressor Station 19, Melbourne, Fl

I hereby submit one (1) affidavit as proof of publication of the intent issue notice for the site referenced above.

Sincerely,

Allan Weatherford
Compliance Environmentalist

AW:kb
letter.39

cc: Chuck Truby
Raymond Young
Bob Beckham
Riley Jackson
Joe Kolb
Bill Osborne
E. Andersen Olson
Teresa Heron
Chuck Collins 4-5-91

RECEIVED
APR 4 - 1991
DER - BAQM

The Orlando Sentinel

Published Daily
Orlando, Orange County, Florida

State of Florida } SS.
COUNTY OF ORANGE }

RECEIVED

APR 4 - 1991

DER - BAQM

ADVERTISING CHARGE $173.20

Before the undersigned authority personally appeared

Noemi R. Lucero, who on oath says that she is the Legal Advertising Representative of the Orlando Sentinel, a Daily newspaper published at Orlando, in Orange County, Florida; that the attached copy of advertisement, being a intent to issue in the matter of TWO NATURAL GAS FIRED ENGINES

in the Court, was published in said newspaper in the issues of

March 21, 1991

Affiant further says that the said Orlando Sentinel is a newspaper published at Orlando, in said Orange County, Florida, and that the said newspaper has heretofore been continuously published in said Orange County, Florida, each Week Day and has been entered as second-class mail matter at the post office in Orlando, in said Orange County, Florida for a period of one year next preceding the first publication of the attached copy of advertisement; and affiant further says that he/she has neither paid nor promised any person, firm or corporation any discount, rebate, commission or refund for the purpose of securing this advertisement for publication in the said newspaper.

Noemi R. Lucero

JUANITA ROSADO NOTARY PUBLIC STATE OF FLORIDA Seal

Sworn to and subscribed before me this 21st day of March A.D., 19 91

Juanita Rosado
Notary Public

Notary Public
State of Florida at Large
My Commission Expires:
June 18, 1994

FORM NO. AD-262

State of Florida
Department of Environmental Regulation
Notice of Intent to Issue

The Department of Environmental Regulation hereby gives notice of its intent to issue a permit to Florida Gas Transmission Company, P.O. Box 1188, Houston, Texas 77251-1188, to install two natural gas fired entines. The Company's facility is located at West-Southwest of Melbourne Regional Airport in Melbourne, Florida. A determination of Best Available Control Technology (BACT) was not required. The Department is issuing this Intent to Issue for the reasons stated in the Technical Evaluation and Preliminary Determination.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, within fourteen (14) days of publication of this notice. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

The Petition shall contain the following information:

(a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed ;

(b) A statement of how and when each petitioner received notice of the Department's action or proposed action;

(c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;

(d) A statement of the material facts disputed by Petitioner, if any;

(e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;

(f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and

(g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the postition taken by it in this Notice. Persons whose substantial interests will be affected by any decision of the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of publication of this notice in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

The application is available for public inspection during business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:
Department of Environmental Regulation
Bureau of Air Regulation
2600 Blair Stone Road
Tallahassee, Florida 32399-2400
Department of Environmental Regulation
Cental District
3319 Maguire Blvd., Suite 232
Orlando, Florida 32803-3767

Any person may send written comments on the proposed action to Mr. Barry Andrews at the Department's Tallahassee address. All comments mailed within 14 days of the publication of this notice will be considered in the Department's final determination.

CL-161 Mar.21,1991

PM
4-2-91
Gainesville, FL

File Cys

KBN

April 2, 1991

Mr. C. H. Fancy, P.E.
Chief, Bureau of Air Regulation
Florida Department of Environmental Regulation
2600 Blair Stone Road
Tallahassee, FL 32399-2400

RECEIVED
APR 3 1991
DER - BAQM

Re: AC 05-189665
Florida Gas Transmission Co.
Station 19, Units 1 and 2
Brevard County; Melbourne, Florida

Dear Mr. Fancy:

On behalf of Florida Gas Transmission Co. (FGTC), KBN has reviewed the Technical Evaluation and Preliminary Determination (TE&PD) and the draft construction permit for the above referenced PSD permit application. Based on this review, I offer the following comments for your consideration.

In the draft construction permit, under Compliance Determination, it is not specifically stated what initial compliance tests will be required, or when such tests must be conducted.

Thank you for consideration of these comments.

Sincerely,

David A. Buff

David A. Buff, M.E., P.E.
Principal Engineer

cc: Bill Osborne
Jim Alves
Teresa Heron
BAICHF
Chuck Collins, CD
} 4-4-91 RBM

KBN ENGINEERING AND APPLIED SCIENCES, INC.
1034 Northwest 57th Street Gainesville, Florida 32605 904/331-9000 FAX: 904/332-4189

Florida Department of Environmental Regulation

Twin Towers Office Bldg. ● 2600 Blair Stone Road ● Tallahassee, Florida 32399-2400

Lawton Chiles, Governor

Carol M. Browner, Secretary

March 14, 1991

CERTIFIED MAIL-RETURN RECEIPT REQUESTED

Mr. William R. Osborne, Project Manager
Environmental Affairs Department
Florida Gas Transmission Company
P. O. Box 1188
Houston, Texas 77251-1188

Dear Mr. Osborne:

Attached is one copy of the Technical Evaluation and Preliminary Determination and proposed permit to install one natural gas fired engine.

Please submit any written comments you wish to have considered concerning the Department's proposed action to Mr. Barry Andrews of the Bureau of Air Regulation.

Sincerely,

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

CHF/TH/plm

Attachments

c: Charles Collins, CD
David Buff, P.E.

BEFORE THE STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

In the Matter of
Application for Permit by:

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

DER File No. AC 05-189665

INTENT TO ISSUE

The Department of Environmental Regulation hereby gives notice of its intent to issue an air construction permit (copy attached) for the proposed project as detailed in the application specified above. The Department is issuing this Intent to Issue for the reasons stated in the attached Technical Evaluation and Preliminary Determination.

The applicant, Florida Gas Transmission Company, applied on November 27, 1990, to the Department of Environmental Regulation for a permit to install two natural gas fired engines.

The Department has permitting jurisdiction under Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 17-2 and 17-4. The project is not exempt from permitting procedures. The Department has determined that an air construction permit is required for the proposed work.

Pursuant to Section 403.815, F.S. and DER Rule 17-103.150, F.A.C., you (the applicant) are required to publish at your own expense the enclosed Notice of Intent to Issue Permit. The notice shall be published one time only within 30 days, in the legal ad section of a newspaper of general circulation in the area affected. For the purpose of this rule, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in the county where the activity is to take place. The applicant shall provide proof of publication to the Department, at the address specified within seven days of publication. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit.

The Department will issue the permit with the attached conditions unless a petition for an administrative proceeding (hearing) is filed pursuant to the provisions of Section 120.57, F.S.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400. Petitions filed by the permit applicant and the parties listed below must be filed within 14 days of receipt of this intent. Petitions filed by other persons must be filed within 14 days of publication of the public notice or within 14 days of receipt of this intent, whichever first occurs. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

The Petition shall contain the following information:

(a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed;

(b) A statement of how and when each petitioner received notice of the Department's action or proposed action;

(c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;

(d) A statement of the material facts disputed by Petitioner, if any;

(e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;

(f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and

(g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any decision of the Department with regard to the application(s) have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of publication of this notice in the Office in General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this

proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

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

Copies furnished to:

Charles Collins, CD
David Buff, P.E.

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this NOTICE OF INTENT TO ISSUE and all copies were mailed before the close of business on 3-15-91.

FILING AND ACKNOWLEDGEMENT
FILED, on this date, pursuant to §120.52(9), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Kri Faber — Clerk

3-15-91 — Date

State of Florida
Department of Environmental Regulation
Notice of Intent to Issue

The Department of Environmental Regulation hereby gives notice of its intent to issue a permit to Florida Gas Transmission Company, P. O. Box 1188, Houston, Texas 77251-1188, to install two natural gas fired engines. The Company's facility is located at West-Southwest of Melbourne Regional Airport in Melbourne, Florida. A determination of Best Available Control Technology (BACT) was not required. The Department is issuing this Intent to Issue for the reasons stated in the Technical Evaluation and Preliminary Determination.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, within fourteen (14) days of publication of this notice. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

The Petition shall contain the following information:

(a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed;
(b) A statement of how and when each petitioner received notice of the Department's action or proposed action;
(c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;
(d) A statement of the material facts disputed by Petitioner, if any;
(e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;
(f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and
(g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this Notice. Persons whose substantial interests will be affected by any decision of the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of publication of this notice in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

The application is available for public inspection during business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:

Department of Environmental Regulation
Bureau of Air Regulation
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Department of Environmental Regulation
Central District
3319 Maguire Blvd., Suite 232
Orlando, Florida 32803-3767

Any person may send written comments on the proposed action to Mr. Barry Andrews at the Department's Tallahassee address. All comments mailed within 14 days of the publication of this notice will be considered in the Department's final determination.

Technical Evaluation
and
Preliminary Determination

Florida Gas Transmission Company
Brevard, County
Melbourne, Florida

Natural Gas Compressor Engines
Permit No. AC 05-189665
Units Nos. 1 & 2

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

March 14, 1991

SYNOPSIS OF APPLICATION

I. Applicant Name and Address

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

II. Reviewing and Process Schedule

Date of Receipt of Application: November 27, 1990.

30 Days Completeness Review: December 26, 1990.

Additional Information Received: December 18, 1990.

Application Completeness Date: December 18, 1990.

III. FACILITY INFORMATION

III.1 Facility Location

Florida Gas Transmission Company's (FGTC) facility is located 6 miles west-southwest of Melbourne Regional Airport. The UTM coordinates are Zone 17, 528.67 km E and 3101.64 km N.

III.2 Standard Industrial Classification Code

This facility is classified as follows:

Major Group No. 49 - Electric, Gas and Sanitary Services

Group No. 492 - Gas Production and Distribution

Industry No. 4922 - Natural Gas Transmission

III.3 Facility Category

The FGTC site, in Melbourne, will be classified as a minor emitting facility. The proposed project (construction of two new 2,500 bhp natural gas reciprocating internal combustion (IC) engines) will increase CO by 67.6 tons per year and NO_X by 48.3 tons per year, for each engine. The total permitted emissions for this facility shall not exceed 96.6 tons NO_X per year and 135.2 tons CO per year.

IV. PROJECT DESCRIPTION

The FGTC proposed to install two new natural gas fired engine (Dresser-Rand Model 412-KVSR integral engine compressor unit). The engine has 12 power cylinders and is rated at 2,500 bhp at 330

revolutions per minute (rpm). The engine is turbocharged, increasing the air inlet manifold pressure, which allows the engine to operate at a high air-to-fuel ratio. This turbocharging produces more power output from the engine than would otherwise be attained without having to use a larger size engine. A flow diagram of the integral engine compressor unit is presented in the attached figure 2.2.

IV.1 Background Information

In general, the FGTC Phase II expansion project will be increasing the natural gas transport capacity of the existing Florida gas pipeline system. The scope of work for Phase II includes expansions by addition of state-of-the-art compressor engines at light existing compressor stations and at a newly proposed compressor station. The proposed 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. This site is referred to as Station No. 19.

V. RULE APPLICABILITY

The proposed project is subject to preconstruction review under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code (F.A.C.) Chapter 17-2.

This facility is located in an area designated attainment for all criteria pollutants in accordance with F.A.C. Rule 17-2.420.

The proposed project is exempt from review under F.A.C. Rule 17-2.500, Prevention of Significant Deterioration (PSD) because this new facility is considered a minor emitting facility for purpose of PSD regulations (under 250 tons per year).

The proposed project will be reviewed in accordance with F.A.C. Rule 17-2.520, Sources Not Subject to Prevention of Significant Deterioration of Nonattainment Requirements.

The proposed facility shall comply with applicable provisions of F.A.C. Rule 17-2.610, General Particulate Emission Limiting Standards; F.A.C. Rule 17-2.620, General Pollutant Limiting Standards; and F.A.C. Rule 17-2.700, Emission Test Procedures.

VI. SOURCE IMPACT ANALYSIS

VI.1 Control Technology Review

The proposed engine will incorporate "lean-burn" technology, which is state-of-the-art design for minimizing air pollutant concentration in the exhaust gases from gas-fired reciprocating IC

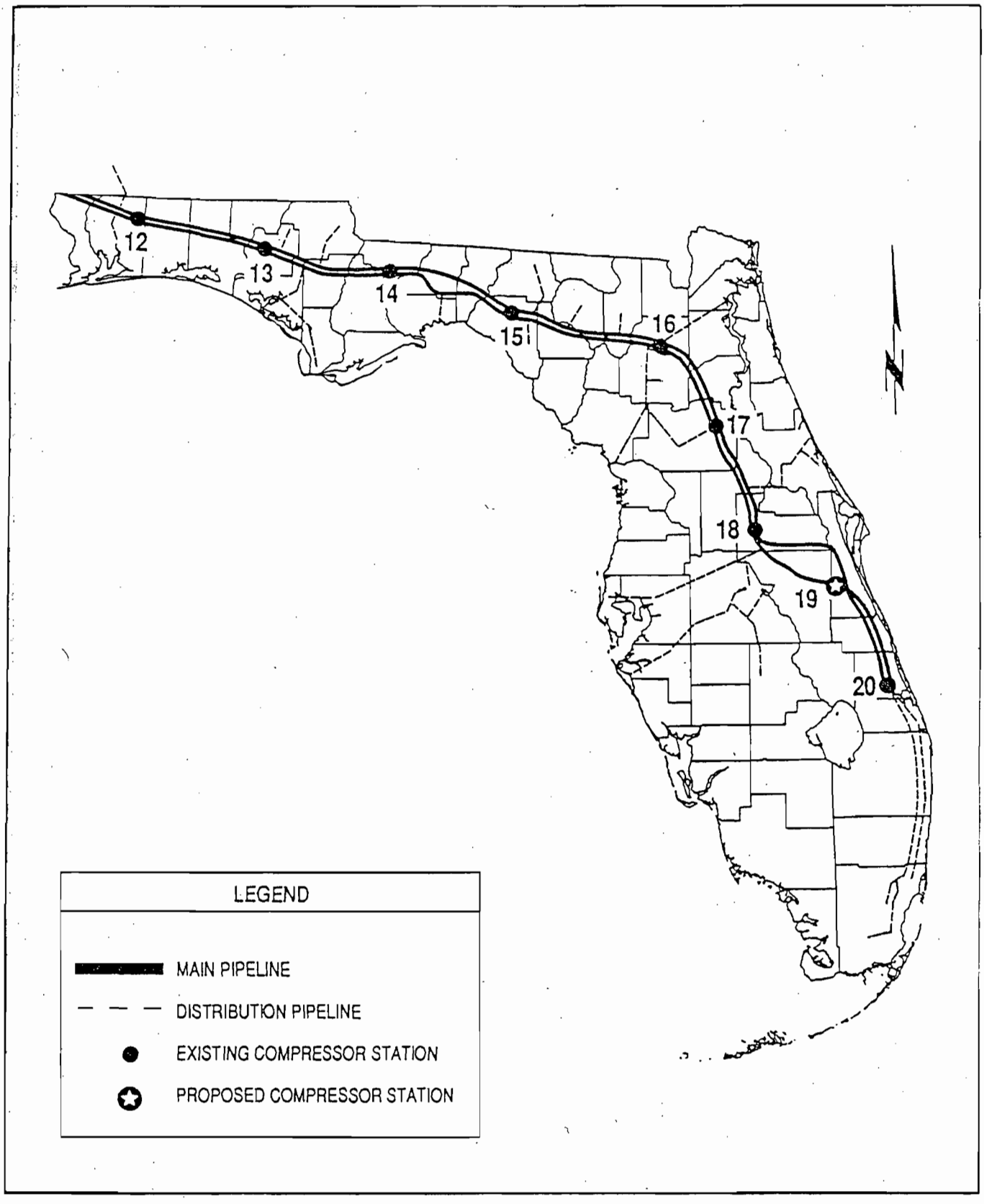

Figure 1-1 FGTC'S GAS TRANSMISSION SYSTEM

Florida Gas
Transmission Company

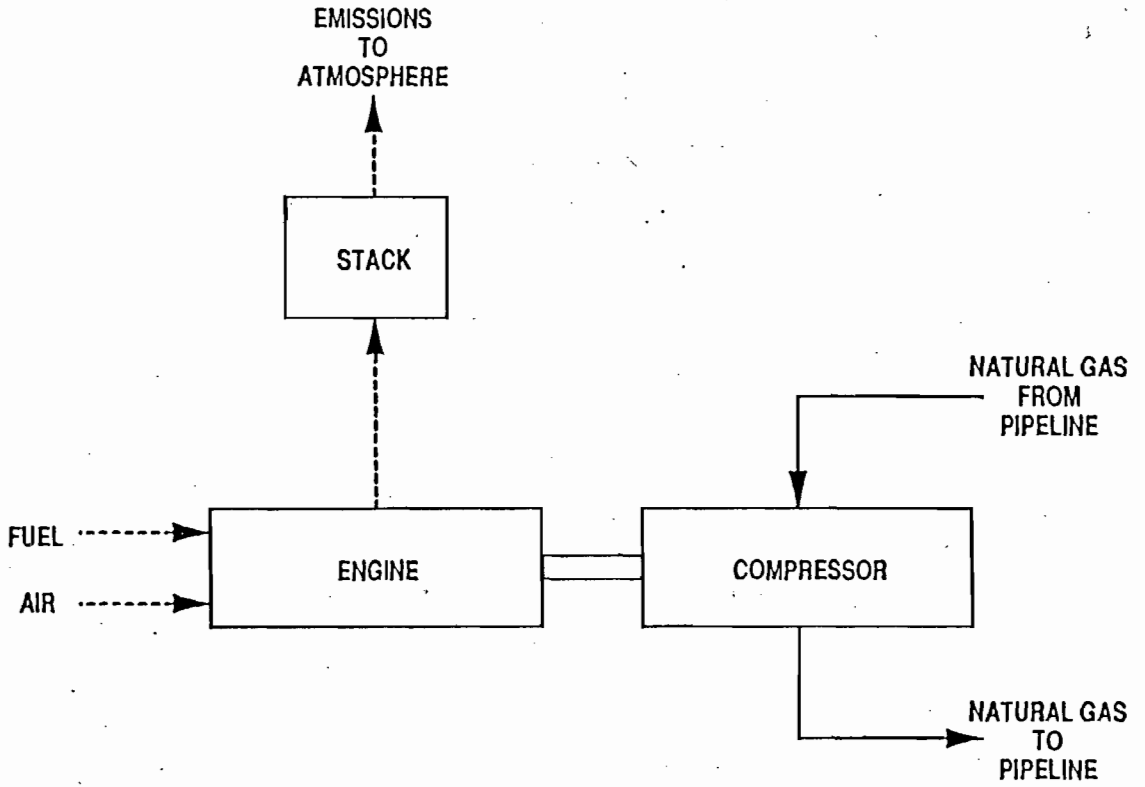

Figure 2-2 PROCESS FLOW DIAGRAM OF AN INTEGRAL ENGINE-COMPRESSOR UNIT

Florida Gas Transmission Company

engines. In the lean-burn design, a small, fuel-rich mixture is combusted in a preignition chamber. The hot combustion gases from the preignition then pass to the main combustion chamber, where they ignite a lean mixture of fuel. Since most of the fuel entering the engine is burned in a lean state (i.e., high ratio of air to fuel), exhaust NO_x emissions are minimized. However, volatile organic compound (VOC) emissions are approximately 40 to 50 percent higher than the standard "rich-burn" engines.

VI.2 Emission Limitations

The operation of this source will produce emissions of NO_x, CO, VOCs, particulates, and SO_2 from the burning of natural gas. Table I summarizes the proposed emissions from this station.

TABLE I
SUMMARY OF EMISSIONS

Pollutant	Maximum Potential Emissions From Each Proposed Compressor Engine (lbs/hr)	(TPY)
Nitrogen Oxides	11.0	48.3
Carbon Monoxide	15.4	67.6
Volatile Organic Compounds (non-methane)	9.4	41.0
Particulate Matter (TSP)	0.09	0.4
Particulate Matter (PM_{10})	0.09	0.4
Sulfur Dioxide	0.51	2.2

VI.3 Air Quality Analysis

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

VII. 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 17-2 of the Florida Administrative Code.

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

VII. 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 17-2 of the Florida Administrative Code.

Barry D. Andrews
36024
3-15-91

34 DEC

ida Department of Environmental Regulation

owers Office Bldg. ● 2600 Blair Stone Road ● Tallahassee, Florida 32399-2400

STATE OF FLORIDA

hiles, Governor

Carol M. Browner, Secretary

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

Permit Number: AC 05-189665
Expiration Date: June 30, 1992
County: Brevard
Latitude/Longitude: 28°02'30"N
80°42'30"W
Project: Natural Gas Compressor Engines (Units Nos. 1 & 2)
Station No. 19

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 17-2 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 two natural gas fired engines to be located 6 miles west-southwest of Melbourne Regional Airport. The UTM coordinates are Zone 17, 528.67 km East and 3101.64 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. DER Form 17-1.202(1)

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.141, 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.

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, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.

3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any 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 of 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.

4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgement 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.

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.

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.

GENERAL CONDITIONS:

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 any 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.

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. 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.

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.

GENERAL CONDITIONS:

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.

11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 17-4.120 and 17-730.300, 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.

12. This permit or a copy thereof shall be kept at the work site of the permitted activity.

13. 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 for 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:

- 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.

GENERAL CONDITIONS:

14. 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 each engine shall not exceed the emission rates as follows:

Pollutant	lbs/hr	tons/yr	Emission Factor
Nitrogen Oxides	11.0	48.3	2.0 g/bhp-hr
Carbon Monoxide	15.4	67.6	2.8 g/bhp-hr
Volatile Organic Compounds (non-methane)	9.4	41.0	1.7 g/bhp-hr
Particulate Matter (TSP)	0.09	0.4	5 lbs/MMscf
Particulate Matter (PM_{10})	0.09	0.4	5 lbs/MMscf
Sulfur Dioxide	0.51	2.2	10 gr/100scf

2. Visible emissions shall not exceed 10% opacity.

Operating Rates

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

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

5. The permitted operating parameters and utilization rates for these natural gas compressor engines shall not exceed the values stated in the application. The parameters include, but are not limited to:

- Maximum natural gas consumption shall not exceed 17,718 scf/hr per engine.
- Maximum heat input shall not exceed 36.50 MMBtu/hr for both engines.

6. Any change in the method of operation, equipment or operating hours shall be submitted to the DER's Bureau of Air Regulation and Central District offices.

SPECIFIC CONDITIONS:

7. Any other operating parameters established during compliance testing and/or inspection that will ensure the proper operation of this facility shall be included in the operating permit.

Compliance Determination

8. Compliance with the NO_x, SO_2, CO, and VOC standards shall be determined by the following reference methods as described in 40 CFR 60, Appendix A (July 1, 1989) and adopted by reference in F.A.C. Rule 17-2.700.

- Method 1. Sample and Velocity Traverses
- Method 2. Volumetric Flow Rate
- Method 3. Gas Analysis
- Method 7E. Determination of Nitrogen Oxides Emissions from Stationary Sources
- Method 9. Determination of the Opacity of the Emissions from Stationary Sources
- Method 10. Determination of the Carbon Monoxide Emission from Stationary Sources
- Method 25. Determination of Total Gaseous Nonmethane Organic Emissions as Carbon

9. Compliance with the SO_2 emission limit can be determined by calculations based on fuel analysis using ASTM D1072-80, D3031-81, D4084-82, or D3246-81 for sulfur content of gaseous fuels.

10. Initial compliance with the total volatile organic compounds will be determined by EPA Method 25, thereafter, compliance with the total VOC emission limits will be assumed, provided the CO allowable emission rate is achieved.

11. Test results will be the average of 3 valid runs. The Central District office will be notified at least 15 days in advance of the compliance test. The source shall operate between 90% and 100% of permitted capacity during the compliance test. Compliance test results shall be submitted to the Central District office no later than 45 days after completion.

Rule Requirements

12. This source shall comply with all applicable provisions of Chapter 403, Florida Statutes and Chapters 17-2 and 17-4, Florida Administrative Code.

SPECIFIC CONDITIONS:

13. Issuance of this permit does not relieve the facility owner or operator from compliance with any applicable federal, state, or local permitting requirements and regulations (F.A.C. Rule 17-2.210(1)).

14. This source shall comply with all applicable provisions of F.A.C. Rule 17-2.700, Stationary Point Source Emission Test Procedures.

15. Pursuant to F.A.C. Rule 17-2.210(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: fuel usage, hours of operation, air to fuel ratio, air emissions limits, test results, etc. Annual reports shall be sent to the Department's Central District office.

16. 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).

17. An application for an operation permit must be submitted to the Central District office at least 90 days prior to the expiration date of this construction permit or within 45 days after completion of compliance testing, whichever occurs first. 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. Rule 17-4.220).

Issued this _____ day
of _____, 1991

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

_____
STEVE SMALLWOOD, P.E., Director
Division of Air Resources
Management

ENRON
Gas Pipeline Operating Company

P. O. Box 1188 Houston, Texas 77251-1188 (713) 853-6161

November 21, 1990

Clair Fancy, P.E.
Chief, Bureau of Air Regulation
Florida Department of Environmental Regulation
2600 Blair Stone Road
Tallahassee, FL 32301

Dear Mr. Fancy:

RE: Construction Permit Application - Compressor Station No. 19
Brevard County, Florida - Florida Gas Transmission Company

This permit application, sent to you on behalf of Florida Gas Transmission Company (FGT), describes FGT's new Compressor Station No. 19. With net NO_x emissions less than 250 tons per year, this source - two 2,500 horsepower reciprocating compressor engines - is minor and not subject to prevention of significant deterioration (PSD) regulations.

This is the last of nine permit applications we plan to submit to FDER as part of FGT's Phase II expansion. Since FGT's Phase II project is designed to bring clean fuel to Floridians by the 1991-92 heating season, and to displace foreign oil imports, we would ask that you review this permit application and issue the construction permit as soon as possible.

If you have any questions concerning this letter, please contact me at (713) 853-7303, or David Buff, KBN Engineering and Applied Sciences, Inc., Gainesville, Florida, at (904) 331-9000.

Sincerely,

W. Alan Bowman

W. Alan Bowman (Room 2570)
Project Environmentalist
Environmental Affairs Department

Enclosures: 8 Copies of Permit Application
Construction Permit Fee

cc: Jerry Murphy, Enron
Kevin McGlynn, Enron
David Buff, KBN

FAN1102wab

Air Regulation
#001031

FEDERAL EXPRESS [redacted]

QUESTIONS? CALL 800-238-5355 TOLL FREE

AIRBILL
PACKAGE TRACKING NUMBER 8202995883

2014 8202995883

RECIPIENT'S COPY

[redacted] Date 11-21-90

1 From (Your Name) Please Print: David A. Buff
Your Phone Number (Very Important): (904) 331-9000
Company: KBN ENG & APPLIED SCIENCES
Department/Floor No.:
Street Address: 1034 NW 57TH ST
City: GAINESVILLE State: FL ZIP Required: 32605

2 To (Recipient's Name) Please Print: Clair Fancy, P.E.
Recipient's Phone Number (Very Important): (904) 488-4805
Company: Chief, Bureau of Air Regulation
Fla. Dept. of Environmental Regulation
Department/Floor No.:
Exact Street Address (We Cannot Deliver to P.O. Boxes or P.O. Zip® Codes.): 2600 Blair Stone Road
City: Tallahassee, State: FL ZIP Required: 32301

YOUR INTERNAL BILLING REFERENCE INFORMATION (First 24 characters will appear on invoice.): 90051

H IF HOLD FOR PICK-UP, Print FEDEX Address Here
Street Address
City State ZIP Required

3 PAYMENT 1 [XX] Bill Sender 2 [ ] Bill Recipient's FedEx Acct. No. 3 [ ] Bill 3rd Party FedEx Acct. No. 4 [ ] Bill Credit Card
5 [ ] Cash/Check [redacted]

4 SERVICES (Check only one box)

Priority Overnight Service (Delivery by next business morning†)		Standard Overnight Service (Delivery by next business afternoon†)	
11 [ ]	YOUR PACKAGING	51 [ ]	
16 [ ]	FEDEX LETTER *	56 [ ]	FEDEX LETTER *
12 [XX]	FEDEX PAK *	52 [ ]	FEDEX PAK *
13 [ ]	FEDEX BOX	53 [ ]	FEDEX BOX
14 [ ]	FEDEX TUBE	54 [ ]	FEDEX TUBE

Economy Distribution Service (formerly Standard Air) (Delivery by second business day†)
30 [ ] ECONOMY DIST. SVC.

Heavyweight Service (for Extra Large or any package over 150 lbs.)
70 [ ] HEAVYWEIGHT **
80 [ ] DEFERRED HEAVYWEIGHT **

† Delivery commitment may be later in some areas.
*Declared Value Limit $100.
**Call for delivery schedule.

DELIVERY AND SPECIAL HANDLING (Check services required)

1 [ ] HOLD FOR PICK-UP (Fill in Box H)
2 [XX] DELIVER WEEKDAY
3 [ ] DELIVER SATURDAY (Extra charge) (Not available to all locations)
4 [ ] DANGEROUS GOODS (Extra charge)
5 [ ]
6 [ ] DRY ICE
7 [ ] OTHER SPECIAL SERVICE
8 [ ]
9 [ ] SATURDAY PICK-UP (Extra charge)
10 [ ]
11 [ ] DESCRIPTION
12 [ ] HOLIDAY DELIVERY (If offered) (Extra charge)

PACKAGES | WEIGHT In Pounds Only | YOUR DECLARED VALUE

Total Total Total

DIM SHIPMENT (Chargeable Weight) [ ] lbs.

Received At
1 [ ] Regular Stop 3 [ ] Drop Box
4 [ ] B.S.C.
2 [ ] On-Call Stop 5 [ ] Station

FedEx Emp. No.

RECEIVED NOV 28 1990 DER - BAQM

RECEIVED NOV 28 1990 DER - BAQM

Emp. No. Date
[ ] Cash Received
[ ] Return Shipment
[ ] Third Party [ ] Chg. To Del. [ ] Chg. To Hold
Street Address
City State Zip
Received By:
X
Date/Time Received FedEx Employee Number

5 Release Signature:
Date/Time

Federal Express Use
Base Charges
Declared Value Charge
Other 1
Other 2
Total Charges

REVISION DATE 4/90
PART #119500 FXEM 7/90
FORMAT #027

027

CHECK NO.
0822020237

ENRON GAS PIPELINE OPERATING COMPANY
P.O. BOX 1188
HOUSTON, TEXAS 77251-1188

DATE OF CHECK
10-19-90

ENRON CORP

This check is VOID unless printed on BLUE background

AMOUNT OF CHECK

EXACTLY $*****2,500 DOLLARS 00 CENTS $*****2,500.00

PAY TO THE ORDER OF

BUREAU OF AIR REGULATION
FLORIDA DEPARTMENT OF
ENVIRONMENTAL REGULATION
2600 BLAIR STONE ROAD
TALLAHASSEE, FL
32399-2400

BY _____ AUTHORIZED REPRESENTATIVE

UNITED BANK OF GRAND JUNCTION

[redacted]

REMITTANCE STATEMENT

CHECK NO. 0822020237

ENRON GAS PIPELINE OPERATING COMPANY

VOUCHER NO.	INVOICE DATE	INVOICE NUMBER	PURCHASE ORDER	AMOUNT GROSS	AMOUNT DISCOUNT	AMOUNT NET
9010001573	101790	CKR10179006		2,500.00	0.00	2,500.00
C.S. #19 CONSTRUCTION PERMIT FGT						
					TOTAL	2,500.00

New Minor Source

Q > 100 tpy,
but no PSD or
NAA new source
review permit

Special Instructions
CALL SUZY AT EXT 7304

P. O. BOX 1188 HOUSTON, TEXAS 77251-1188

DETACH STATEMENT BEFORE DEPOSITING. ENDORSEMENT OF CHECK ATTACHED ACKNOWLEDGES PAYMENT IN FULL OF ALL ITEMS SHOWN ABOVE. IN CASE OF ERROR OR OMISSION RETURN BOTH CHECK AND STATEMENT

CHECK NO.
0822020237

ENRON GAS PIPELINE OPERATING COMPANY
P.O. BOX 1188
HOUSTON, TEXAS 77251-1188

DATE OF CHECK
10-19-90

ENRON CORP

This check is VOID unless printed on BLUE background

EXACTLY $*****2,500 DOLLARS 00 CENTS

AMOUNT OF CHECK
$*****2,500.00

PAY TO THE ORDER OF

BUREAU OF AIR REGULATION
FLORIDA DEPARTMENT OF
ENVIRONMENTAL REGULATION
2600 BLAIR STONE ROAD
TALLAHASSEE, FL
32399-2400

BY _____ AUTHORIZED REPRESENTATIVE

UNITED BANK OF GRAND JUNCTION

[redacted]

REMITTANCE STATEMENT

CHECK NO. 0822020237

ENRON GAS PIPELINE OPERATING COMPANY

PAGE 001 OF 001

VOUCHER NO.	INVOICE DATE	INVOICE NUMBER	PURCHASE ORDER	AMOUNT GROSS	AMOUNT DISCOUNT	AMOUNT NET
9010001573	101790	CKR10179006		2,500.00	0.00	2,500.00
C.S. #19 CONSTRUCTION PERMIT FGT						
					TOTAL	2,500.00

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P. O. BOX 1188, HOUSTON, TEXAS 77251-1188
DETACH STATEMENT BEFORE DEPOSITING. ENDORSEMENT OF CHECK ATTACHED ACKNOWLEDGES PAYMENT IN FULL OF ALL ITEMS SHOWN ABOVE. IN CASE OF ERROR OR OMISSION RETURN BOTH CHECK AND STATEMENT

STATE OF FLORIDA

Station No. 19

DEPARTMENT OF ENVIRONMENTAL REGULATION

$2,500 pd. 11-27-90 Recpt. # 15124

AC 05-189665

APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Natural Gas Compressor Engine [X] New[1] [ ] Existing[1]

APPLICATION TYPE: [X] Construction [ ] Operation [ ] Modification

COMPANY NAME: Florida Gas Transmission Company COUNTY: Brevard

Identify the specific emission point source(s) addressed in this application (i.e., Lime Kiln No. 4 with Venturi Scrubber; Peaking Unit No. 2, Gas Fired) Station 19, Unit Nos. 1 and 2

SOURCE LOCATION: Street 6 miles west-southwest of Melbourne Regional Airport City Melbourne

UTM: East 17:528.67 km North 3101.64 km

Latitude 28 ° 02 ' 30 "N Longitude 80 ° 42 ' 30 "W

APPLICANT NAME AND TITLE: W. Alan Bowman, Project Environmentalist

APPLICANT ADDRESS: P.O. Box 1188, Houston, Texas 77251 Phone: (713) 853-7303

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of Florida Gas Transmission Co.

I certify that the statements made in this application for a construction permit are true, correct and complete to the best of my knowledge and belief. Further, I agree to maintain and operate the pollution control source and pollution control facilities in such a manner as to comply with the provision of Chapter 403, Florida Statutes, and all the rules and regulations of the department and revisions thereof. I also understand that a permit, if granted by the department, will be non-transferable and I will promptly notify the department upon sale or legal transfer of the permitted establishment.

*Attach letter of authorization

Signed: C. J. Truby

C.L. Truby, Vice President
Name and Title (Please Type)

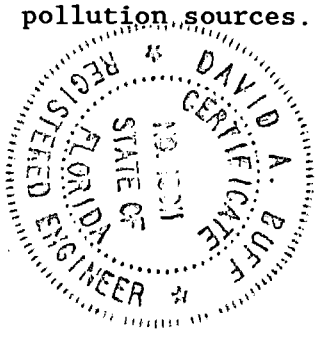
Date: 11-12-90 Telephone No. (713) 853-6161

B. PROFESSIONAL ENGINEER REGISTERED IN FLORIDA (where required by Chapter 471, F.S.)

This is to certify that the engineering features of this pollution control project have been designed/examined by me and found to be in conformity with modern engineering principles applicable to the treatment and disposal of pollutants characterized in the permit application. There is reasonable assurance, in my professional judgement, that

[1]See Florida Administration Code Rule 17-2.100(57) and (104)

the pollution control facilities, when properly maintained and operated, will discharge an effluent that complies with all applicable statutes of the State of Florida and the rules and regulations of the department. It is also agreed that the undersigned will furnish, if authorized by the owner, the applicant a set of instructions for the proper maintenance and operation of the pollution control facilities and, if applicable, pollution sources.



Signed David A. Buff

David A. Buff, P.E.
Name (Please Type)

KBN Engineering and Applied Sciences, Inc.
Company Name (Please Type)

1034 NW 57th Street, Gainesville, FL 32605
Mailing Address (Please Type)

Florida Registration No. 19011 Date: Nov. 21, 1990 Telephone No. (904) 331-9000

SECTION II: GENERAL PROJECT INFORMATION

A. Describe the nature and extent of the project. Refer to pollution control equipment, and expected improvements in source performance as a result of installation. State whether the project will result in full compliance. Attach additional sheet if necessary.

See Attachment A

B. Schedule of project covered in this application (Construction Permit Application Only)

Start of Construction March 15, 1991 Completion of Construction 18 months after permit issuance

C. Costs of pollution control system(s): (Note: Show breakdown of estimated costs only for individual components/units of the project serving pollution control purposes. Information on actual costs shall be furnished with the application for operation permit.)

Not applicable

D. Indicate any previous DER permits, orders and notices associated with the emission point, including permit issuance and expiration dates.

Not applicable

E. Requested permitted equipment operating time: hrs/day 24 ; days/wk 7 ; wks/yr 52 ;
If power plant, hrs/yr _____; if seasonal, describe: _____

F. If this is a new source or major modification, answer the following questions. (Yes or No)

1. Is this source in a non-attainment area for a particular pollutant? No
   a. If yes, has "offset" been applied? _____
   b. If yes, has "Lowest Achievable Emission Rate" been applied? _____
   c. If yes, list non-attainment pollutants. _____
2. Does best available control technology (BACT) apply to this source? If yes, see Section VI. No
3. Does the State "Prevention of Significant Deterioration" (PSD) requirement apply to this source? If yes, see Sections VI and VII. No
4. Do "Standards of Performance for New Stationary Sources" (NSPS) apply to this source? No
5. Do "National Emission Standards for Hazardous Air Pollutants" (NESHAP) apply to this source? No

H. Do "Reasonably Available Control Technology" (RACT) requirements apply to this source? No
   a. If yes, for what pollutants? _____
   b. If yes, in addition to the information required in this form, any information requested in Rule 17-2.650 must be submitted.

Attach all supportive information related to any answer of "Yes". Attach any justification for any answer of "No" that might be considered questionable.

See Attachment A

SECTION III: AIR POLLUTION SOURCES & CONTROL DEVICES (Other than Incinerators)

A. Raw Materials and Chemicals Used in your Process, if applicable:

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		
Not applicable				

B. Process Rate, if applicable: (See Section V, Item 1)

1. Total Process Input Rate (lbs/hr): Not applicable

2. Product Weight (lbs/hr): Not applicable

C. Airborne Contaminants Emitted: (Information in this table must be submitted for each emission point, use additional sheets as necessary)

Note: Emissions represent total for two engines (i.e., Unit Nos. 1 and 2).

Name of Contaminant	Emission[1]		Allowed[2] Emission Rate per Rule 17-2	Allowable[3] Emission lbs/hr	Potential[4] Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/hr	T/yr	
NO_x	22.0	96.6	BACT	BACT	22.0	96.6	
CO	30.9	135.2	N/A	N/A	30.9	135.2	
VOCs	18.7	82.1	N/A	N/A	18.7	82.1	
Particulates	0.18	0.78	N/A	N/A	0.18	0.78	
SO_2	1.01	4.43	N/A	N/A	1.01	4.43	

[1]See Section V, Item 2.

[2]Reference applicable emission standards and units (e.g. Rule 17-2.600(5)(b)2. Table II, E. (1) - 0.1 pounds per million BTU heat input)

[3]Calculated from operating rate and applicable standard.

[4]Emission, if source operated without control (See Section V, Item 3).

D. Control Devices: (See Section V, Item 4)

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles Size Collected (in microns) (If applicable)	Basis for Efficiency (Section V Item 5)
Lean Burn Engine Design	NO_x	80%	N/A	Design and
				AP-42

E. Fuels

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max/hr	
Natural Gas	0.0354	0.0354	36.50
(total 2 engines)			

*Units: Natural Gas--MMCF/hr; Fuel Oils--gallons/hr; Coal, wood, refuse, others--lbs/hr.

Fuel Analysis:

Percent Sulfur: 0.031 (by weight)* Percent Ash: NA

Density: 0.0455 lb/ft^3 lbs/gal Typical Percent Nitrogen: NA

Heat Capacity: 22,637 (based on 1,030 Btu/scf) BTU/lb NA BTU/gal

Other Fuel Contaminants (which may cause air pollution): NA

F. If applicable, indicate the percent of fuel used for space heating.

Annual Average Not applicable Maximum

G. Indicate liquid or solid wastes generated and method of disposal.

Not applicable

*Based on contract limit of 10 gr/100 ft^3 and gas at 0.0455 lb/ft^3

H. Emission Stack Geometry and Flow Characteristics (Provide data for each stack):

Stack Height: 40 ft. Stack Diameter: 1.271 ft.

Gas Flow Rate: 14,355 ACFM 6,036 DSCFM Gas Exit Temperature: 695 °F.

Water Vapor Content: 8 % Velocity: 188.57 FPS

SECTION IV: INCINERATOR INFORMATION

Not Applicable

Type of Waste	Type 0 (Plastics)	Type II (Rubbish)	Type III (Refuse)	Type IV (Garbage)	Type IV (Pathological)	Type V (Liq.& Gas By-prod.)	Type VI (Solid By-prod.)
Actual lb/hr Incinerated							
Uncontrolled (lbs/hr)							

Description of Waste _____

Total Weight Incinerated (lbs/hr) _____ Design Capacity (lbs/hr) _____

Approximate Number of Hours of Operation per day _____ day/wk _____ wks/yr. _____

Manufacturer _____

Date Constructed _____ Model No. _____

	Volume $(ft)^3$	Heat Release (BTU/hr)	Fuel		Temperature (°F)
			Type	BTU/hr	
Primary Chamber					
Secondary Chamber					

Stack Height: _____ ft. Stack Diamter: _____ Stack Temp. _____

Gas Flow Rate: _____ ACFM _____ DSCFM* Velocity: _____ FPS

*If 50 or more tons per day design capacity, submit the emissions rate in grains per standard cubic foot dry gas corrected to 50% excess air.

Type of pollution control devices: [ ] Cyclone [ ] Wet Scrubber [ ] Afterburner

[ ] Other

(specify)_____

Brief description of operating characteristics of control devices: _____

Ultimate disposal of any effluent other than that emitted from the stack (scrubber water, ash, etc.):

NOTE: Items 2, 3, 4, 6, 7, 8, and 10 in Section V must be included where applicable.

SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

1. Total process input rate and product weight -- show derivation [Rule 17-2.100(127)]
   Not Applicable
2. To a construction application, attach basis of emission estimate (e.g., design calculations, design drawings, pertinent manufacturer's test data, etc.) and attach proposed methods (e.g., FR Part 60 Methods, 1, 2, 3, 4, 5) to show proof of compliance with applicable standards. To an operation application, attach test results or methods used to show proof of compliance. Information provided when applying for an operation permit from a construction permit shall be indicative of the time at which the test was made.
   See Attachment A.
3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test).
   See Table A-2 and Attachment B.
4. With construction permit application, include design details for all air pollution control systems (e.g., for baghouse include cloth to air ratio; for scrubber include cross-section sketch, design pressure drop, etc.)
   Not Applicable
5. With construction permit application, attach derivation of control device(s) efficiency. Include test or design data. Items 2, 3 and 5 should be consistent: actual emissions = potential (1-efficiency).
   Not Applicable
6. An 8 ½" x 11" flow diagram which will, without revealing trade secrets, identify the individual operations and/or processes. Indicate where raw materials enter, where solid and liquid waste exit, where gaseous emissions and/or airborne particles are evolved and where finished products are obtained.
   See Figure A-4.
7. An 8 ½" x 11" plot plan showing the location of the establishment, and points of airborne emissions, in relation to the surrounding area, residences and other permanent structures and roadways (Examples: Copy of relevant portion of USGS topographic map).
   See Figure A-2.
8. An 8 ½" x 11" plot plan of facility showing the location of manufacturing processes and outlets for airborne emissions. Relate all flows to the flow diagram.
   See Figure A-3.

9. The appropriate application fee in accordance with Rule 17-4.05. The check should be made payable to the Department of Environmental Regulation.

10. With an application for operation permit, attach a Certificate of Completion of Construction indicating that the source was constructed as shown in the construction permit.

SECTION VI: BEST AVAILABLE CONTROL TECHNOLOGY

Not Applicable

A. Are standards of performance for new stationary sources pursuant to 40 C.F.R. Part 60 applicable to the source?

[ ] Yes [ ] No

Contaminant	Rate or Concentration

B. Has EPA declared the best available control technology for this class of sources (If yes, attach copy)

[ ] Yes [ ] No

Contaminant	Rate or Concentration

C. What emission levels do you propose as best available control technology?

Contaminant	Rate or Concentration

D. Describe the existing control and treatment technology (if any).

1. Control Device/System:
2. Operating Principles:
3. Efficiency:*
4. Capital Costs:

*Explain method of determining

5. Useful Life:

6. Operating Costs:

7. Energy:

8. Maintenance Cost:

9. Emissions:

Contaminant	Rate or Concentration

10. Stack Parameters

a. Height: ft.

b. Diameter ft.

c. Flow Rate: ACFM

d. Temperature: °F.

e. Velocity: FPS

E. Describe the control and treatment technology available (As many types as applicable, use additional pages if necessary).

1.

a. Control Devices:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

2.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

[1]Explain method of determining efficiency.
[2]Energy to be reported in units of electrical power - KWH design rate.

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

3.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

4.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

F. Describe the control technology selected:

1. Control Device:

2. Efficiency:[1]

3. Capital Cost:

4. Useful Life:

5. Operating Cost:

6. Energy:[2]

7. Maintenance Cost:

8. Manufacturer:

9. Other locations where employed on similar processes:

a. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

[1]Explain method of determining efficiency.
[2]Energy to be reported in units of electrical power - KWH design rate.

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:[1]

Contaminant	Rate or Concentration

(8) Process Rate:[1]

b. (1) Company:

(2) Mailing Address:

(3) City: (4) State:

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:[1]

Contaminant	Rate or Concentration

(8) Process Rate:[1]

10. Reason for selection and description of systems:

[1]Applicant must provide this information when available. Should this information not be available, applicant must state the reason(s) why.

SECTION VII - PREVENTION OF SIGNIFICANT DETERIORATION

Not Applicable

A. Company Monitored Data

1. _____ no. sites _____ TSP _____ ( ) SO^{2*} _____ Wind spd/dir

Period of Monitoring _____/____/_____ to _____/____/_____
month day year month day year

Other data recorded _____

Attach all data or statistical summaries to this application.

*Specify bubbler (B) or continuous (C).

2. Instrumentation, Field and Laboratory

a. Was instrumentation EPA referenced or its equivalent? [ ] Yes [ ] No

b. Was instrumentation calibrated in accordance with Department procedures?

[ ] Yes [ ] No [ ] Unknown

B. Meteorological Data Used for Air Quality Modeling

1. _____ Year(s) of data from _____/_____/_____ to _____/_____/_____
month day year month day year

2. Surface data obtained from (location)_____

3. Upper air (mixing height) data obtained from (location) _____

4. Stability wind rose (STAR) data obtained from (location) _____

C. Computer Models Used

1. _____ Modified? If yes, attach description.

2. _____ Modified? If yes, attach description.

3. _____ Modified? If yes, attach description.

4. _____ Modified? If yes, attach description.

Attach copies of all final model runs showing input data, receptor locations, and principle output tables.

D. Applicants Maximum Allowable Emission Data

Pollutant	Emission Rate
TSP	_____ grams/sec
SO^2	_____ grams/sec

E. Emission Data Used in Modeling

Attach list of emission sources. Emission data required is source name, description of point source (on NEDS point number), UTM coordinates, stack data, allowable emissions, and normal operating time.

F. Attach all other information supportive to the PSD review.

G. Discuss the social and economic impact of the selected technology versus other applicable technologies (i.e, jobs, payroll, production, taxes, energy, etc.). Include assessment of the environmental impact of the sources.

H. Attach scientific, engineering, and technical material, reports, publications, journals, and other competent relevant information describing the theory and application of the requested best available control technology.

ATTACHMENT A

1.0 PROJECT DESCRIPTION

Florida Gas Transmission Company (FGTC), a subsidiary of ENRON Corporation of Houston, Texas, is proposing to add a new compressor station, Compressor Station No. 19, to its existing main natural gas pipeline system. This proposed addition is part of FGTC's Phase II expansion project aimed at increasing the natural gas transport capacity of the existing Florida gas pipeline system. The scope of work for Phase II includes expansions by addition of state-of-the-art compressor engines at eight existing compressor stations and this newly proposed compressor station. The main gas pipeline and the approximate locations of the existing and proposed compressor stations along the main pipeline are shown in Figure A-1.

Compressor Station No. 19 will be located approximately 6 miles west-southwest of the Melbourne Regional Airport (or 2 miles northwest of the Malabar Annex, the Air Force Eastern Test Range) in Brevard County, Florida. Figure A-2 shows the site location of the proposed compressor station.

The proposed new compressor station will include two new 2,500 brake horsepower (bhp) natural-gas-fired, reciprocating internal combustion (IC) engines. The proposed engines will be used solely for the purpose of transporting natural gas in the pipeline for distribution in Florida. Under current federal and state air quality regulations, the proposed engines will constitute a minor source since emissions of any regulated pollutant will not exceed 250 tons per year (TPY).

A plot plan of FGTC's newly proposed Compressor Station No. 19, showing the location of the plant boundaries, the proposed stack locations, and the proposed compressor building, is presented in Figure A-3.

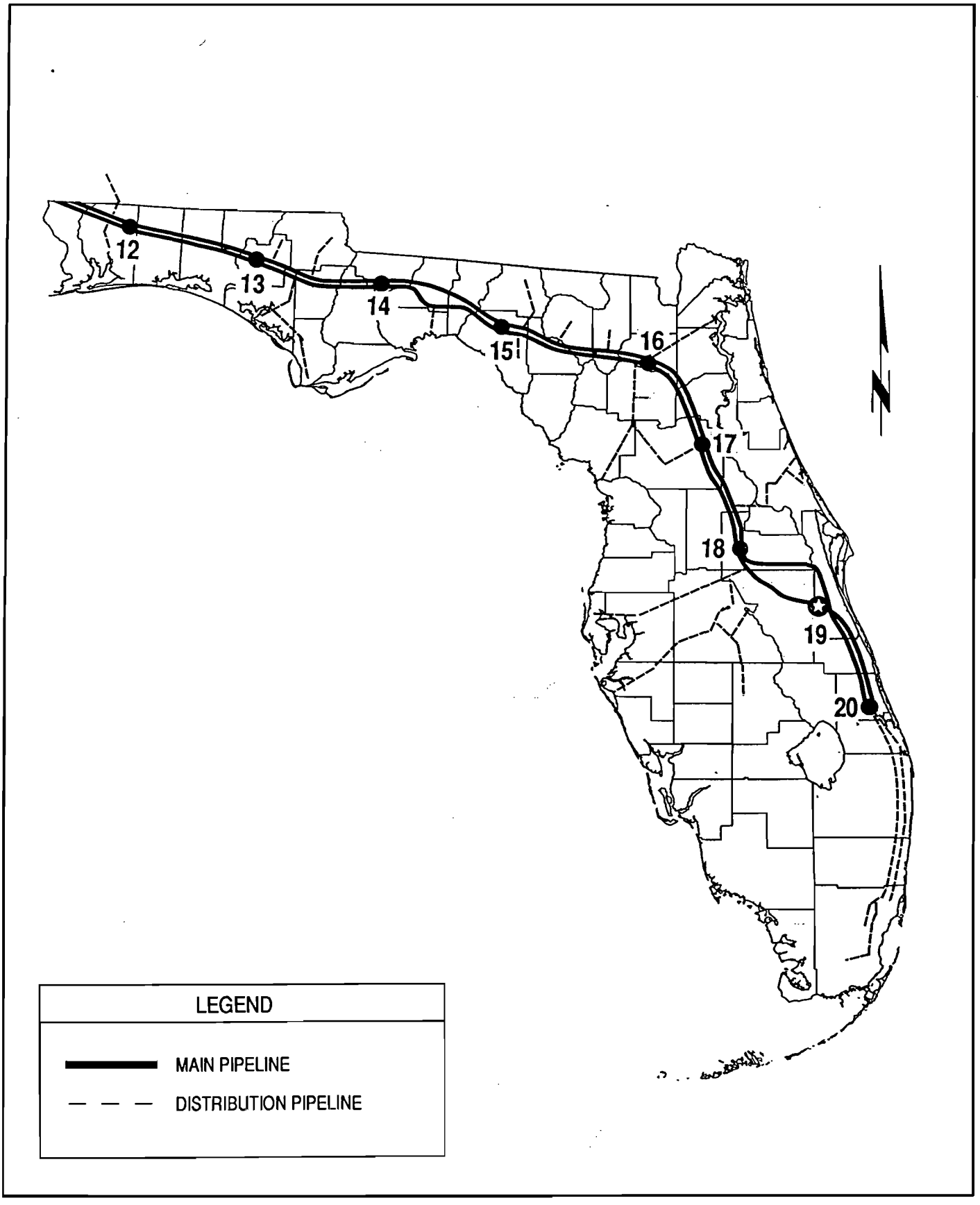


Figure A-1 FGTC'S GAS TRANSMISSION SYSTEM

Florida Gas Transmission Company

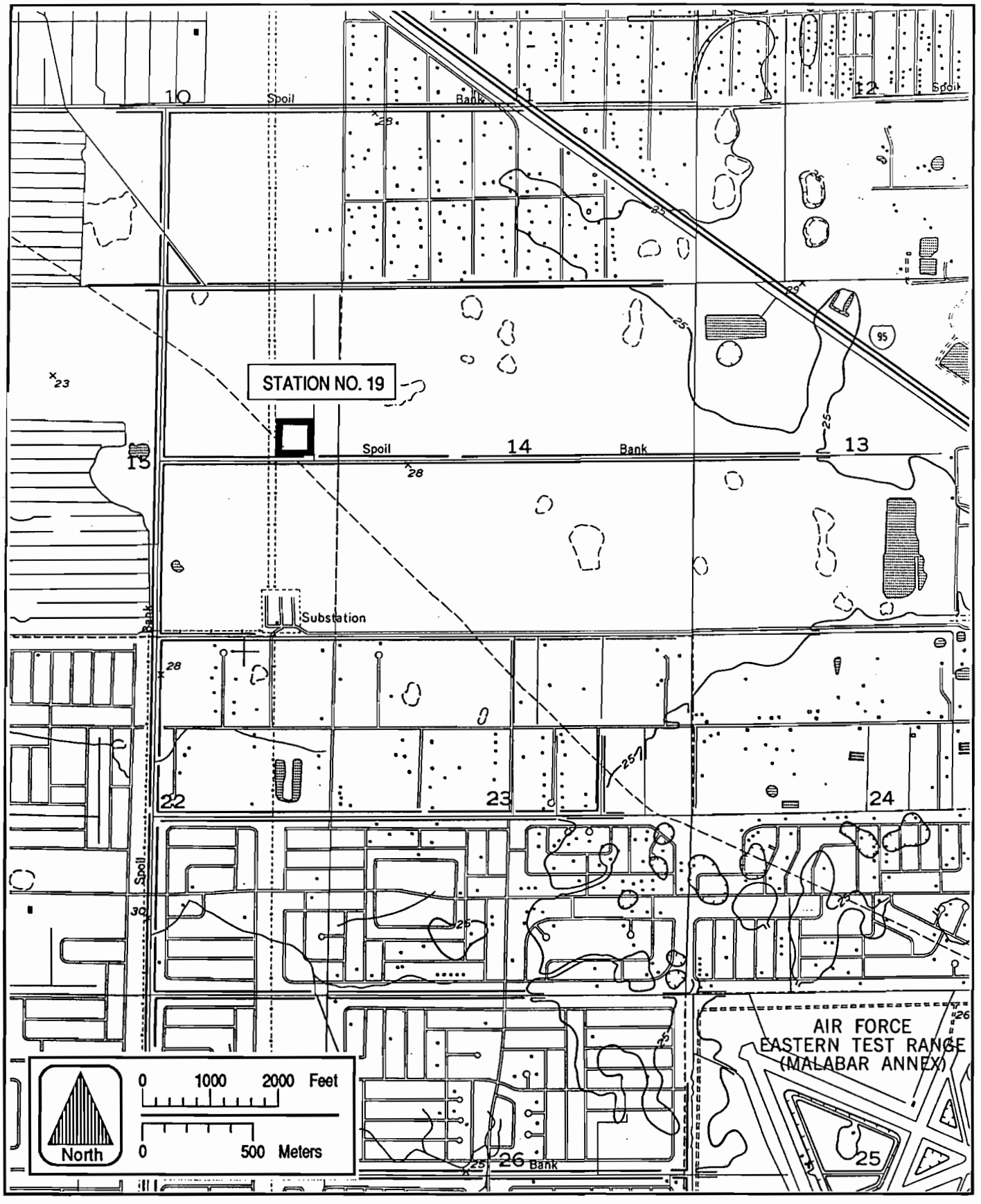
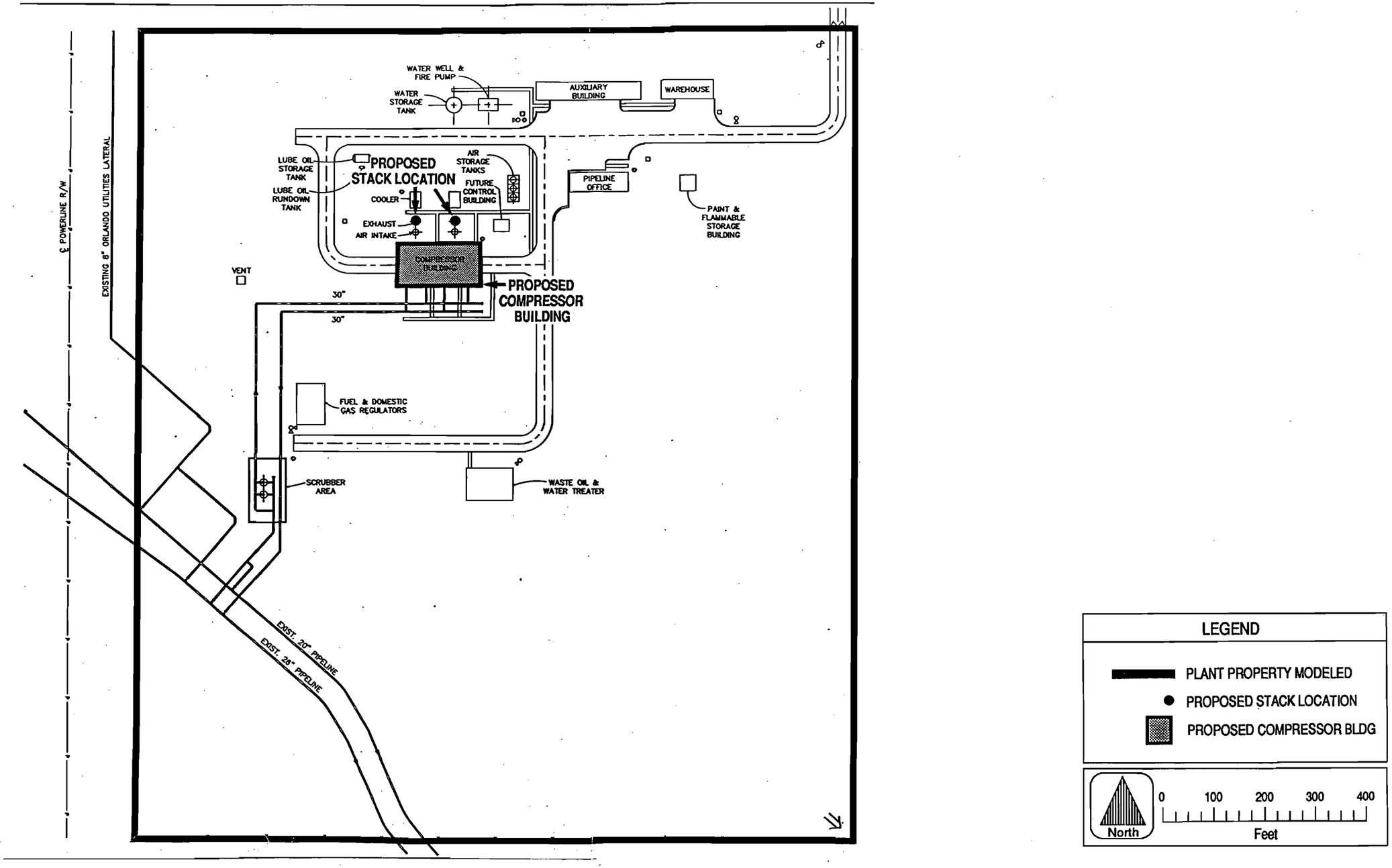


Figure A-2 SITE LOCATION OF ENRON'S FLORIDA GAS TRANSMISSION LINE COMPRESSOR STATION NO. 19, MELBOURNE, BREVARD COUNTY, FLORIDA

Florida Gas Transmission Company



LEGEND

- PLANT PROPERTY MODELED
- PROPOSED STACK LOCATION
- PROPOSED COMPRESSOR BLDG

North

0 100 200 300 400

Feet

Figure A-3 PLOT PLAN OF THE PROPOSED COMPRESSOR STATION NO. 19

Florida Gas Transmission Company

FGTC's proposed engines are two Dresser-Rand Model 412-KVSR integral engine-compressor units. Each engine has 12 power cylinders and is rated at 2,500 bhp at 330 revolutions per minute (rpm). The engine is turbocharged, increasing the air inlet manifold pressure, which allows the engine to operate at a high air-to-fuel ratio. This turbocharging provides more power output from the engine than would otherwise be attained without having to use a larger size engine.

A flow diagram of the integral engine compressor unit is presented in Figure A-4. Fuel fired will be exclusively natural gas, supplied from FGTC's gas pipeline. Based on the operating characteristics and design, this engine is classified as a high-power, large-bore, slow-speed reciprocating IC engine according to U.S. Environmental Protection Agency's (EPA's) proposed performance standards for stationary internal combustion engines (EPA, 1979). Engine specifications and stack parameters for the proposed engine are presented in Table A-1.

2.0 EMISSION ESTIMATES

The proposed engine will incorporate "lean-burn" technology, which is state-of-the-art design for minimizing air pollutant concentrations in the exhaust gases from gas-fired reciprocating IC engines. Maximum hourly and annual emissions of regulated pollutants from the proposed engines are presented in Table A-2. Since the total emissions of each criteria pollutant will be less than 250 TPY, this source will not be subject to prevention of significant deterioration (PSD) review procedures. Emission estimates for nitrogen oxides (NO_x), carbon monoxide (CO), and volatile organic compounds (VOC) are based on the original equipment manufacturer's data. Emission estimates for particulate matter (PM) are based on the AP-42 emission factor for natural-gas-fired boilers. Emissions of sulfur dioxide (SO_2) are based on ENRON's natural gas specification. According to EPA's document on toxic air pollutant emission factors (EPA, 1988), there are no emission factors for other regulated pollutants caused by natural gas combustion in reciprocating IC engines. Detailed emission calculations for each engine are presented in Attachment B.

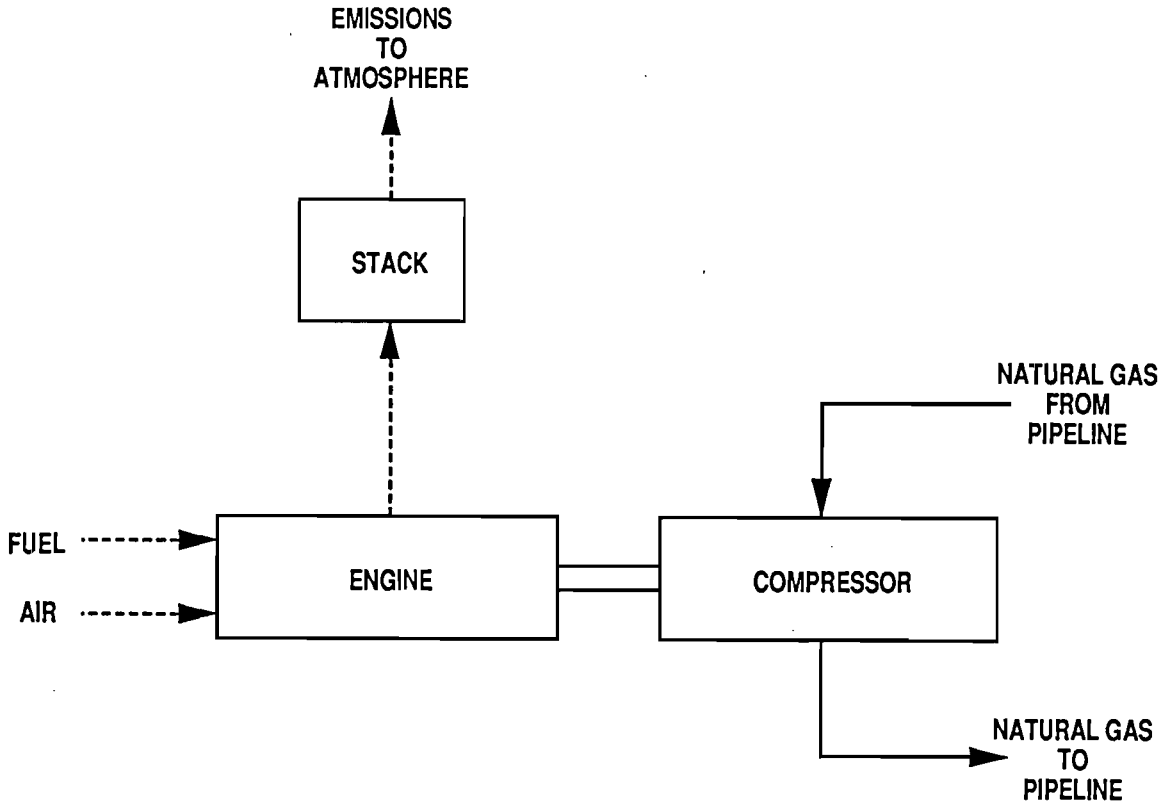


Figure A-4 FLOW DIAGRAM OF AN INTEGRAL ENGINE-COMPRESSOR UNIT

Florida Gas Transmission Company

Table A-1. Engine Specifications and Stack Parameters for Proposed Engines, Station No. 19

Parameter	Design Specification
Per Engine-Compressor Unit	
Manufacturer	Dresser-Rand
Model	412-KVSR
Air Charging	Turbocharged
Unit Size	2,500 bhp
Number of Power Cylinders	12 cylinders
Number of Compressor Cylinders	4 cylinders
Power Cylinder Data	
Bore Size	16.25 inches
Stroke	18 inches
Cylinder Power	200 bhp/cylinder
Specific Heat Input	7,300 Btu/bhp-hr
Maximum Fuel Consumption	17,718 scf/hr*
Speed	330 rpm
Stack Parameters	
Stack Height	40 ft
Stack Diameter	15.25 inches
Exhaust Gas Flow	29,622 lb/hr 14,355 acfm
Exhaust Temperature	695°F
Exhaust Gas Velocity	188.57 ft/sec

* Based on heating value for natural gas of 1,030 Btu/scf at the proposed Compressor Station No. 19.

Note: bhp = brake horsepower.
Btu/bhp-hr = British thermal units per brake horsepower per hour.
scf = standard cubic feet.
lb/hr = pounds per hour.
acfm = actual cubic feet per minute.
°F = degree Fahrenheit.
ft/sec = feet per second.

Source: Dresser-Rand Company, 1990.
ENRON Corporation, 1990.

Table A-2. Maximum Emissions from FGTC's Proposed Engines at Compressor Station No. 19

Pollutant	Emission Factor	Reference	Maximum Emissions			
			Per Engine		Total of Two Engines	
			lb/hr	TPY	lb/hr	TPY
Nitrogen Oxides	2.0 g/bhp-hr	Manufacturer's Guaranteed	11.0	48.3	22.0	96.6
Carbon Monoxide	2.8 g/bhp-hr	Manufacturer's Guaranteed	15.4	67.6	30.9	135.2
Volatile Organic Compounds (Non-methane)	1.7 g/bhp-hr	Manufacturer's Guaranteed	9.4	41.0	18.7	82.1
Particulate Matter	5 lb/MMscf	AP-42, Table 1.4-1	0.09	0.39	0.18	0.78
Sulfur Dioxide	10 gr/100 scf	ENRON Corporation	0.51	2.22	1.01	4.43

* Both engines are identical. Total emissions are twice the per engine rate.

Note: Maximum natural gas consumption is approximately 35,436 standard cubic feet per hour (scf/hr) for both proposed compressor engines or 5,000 brake horsepower total engine rating based on the average brake fuel consumption of 7,300 Btu/bhp-hr.

Btu/bhp-hr = British thermal units per brake horsepower per hour.
g/bhp-hr = grams per brake horsepower per hour.
gr/100 scf = grains per 100 standard cubic feet.
lb/hr = pounds per hour.
TPY = tons per year.

REFERENCES

U.S. Environmental Protection Agency (EPA). 1979. Stationary Internal Combustion Engine: Standard Support and Environmental Impact Statement. Volume 1: Proposed Standard Performance (Draft). Research Triangle Park, NC. EPA-450/2-78-125a.

U.S. Environmental Protection Agency (EPA). 1988. Toxic Air Pollutant Emission Factors--A Compilation for Selected Air Toxic Compounds and Sources. Research Triangle Park, NC. EPA-450/2-88-006a.

ATTACHMENT B

EMISSION CALCULATIONS

Fuel usage and emission calculations are presented below for each engine. The basis for the calculations is given in Attachment A and Table A-2.

Fuel Usage:

(2,500 bhp) x (7,300 Btu/bhp-hr)	= 18.25×10^6 Btu/hr
(18.25×10^6 Btu/hr)/(1,030 Btu/scf)	= 17,718 scf/hr

Emission Calculations:

NO_x:	(2.0 g/bhp-hr)(2,500 bhp)(1 lb/453.593 g)	= 11.023 lb/hr
	(11.023 lb/hr)(8,760 hr/yr)(1 ton/2,000 lb)	= 48.3 TPY
CO:	(2.8 g/bhp-hr)(2,500 bhp)(1 lb/453.593 g)	= 15.432 lb/hr
	(15.432 lb/hr)(8,760 hr/yr)(1 ton/2,000 lb)	= 67.6 TPY
VOCs (non-methane hydrocarbon):		
	(1.7 g/bhp-hr)(2,500 bhp)(1 lb/453.593 g)	= 9.370 lb/hr
	(9.370 lb/hr)(8,760 hr/yr)(1 ton/2,000 lb)	= 41.0 TPY
PM:	($5 \text{ lb}/10^6$ scf)(17,718 scf/hr)	= 0.0886 lb/hr
	(0.0886 lb/hr)(8,760 hr/yr)(1 ton/2,000 lb)	= 0.39 TPY
SO_2:	(10 gr/100 scf)(17,718 scf/hr)(1 lb/7,000 gr)	= 0.253 lb/hr of Sulfur
	(2 lb SO_2/lb Sulfur)(0.253 lb/hr Sulfur)	= 0.506 lb/hr of SO_2
	(0.506 lb/hr)(8,760 hr/yr)(1 ton/2,000 lb)	= 2.22 TPY