



ENSR Consulting
and Engineering

2809 West Mall Drive
Florence, AL 35630
(205) 767-1210
FAX (205) 767-1211

December 3, 1993

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

RECEIVED

DEC - 6 1993

Division of Air
Resources Management

Dear Clair:

**RE: Request for Amendments to Permits
Florida Gas Transmission Company**

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

Station 13 - Permit No. AC67-189220
Caryville, Washington county, Florida

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

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

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

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

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

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

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



December 3, 1993
Mr. Clair Fancy
Page 2

This letter is in response to our recent conversation regarding a previous request by Florida Gas Transmission Company (FGTC) to amend the above permits to include Method 3A instead of Method 3.

On June 29, 1993, FGTC requested that the permits for the compressor engines referenced in this letter be amended to adjust the horsepower ratings and heat input rates. On September 9, 1993 (letter attached), FGTC further requested that specific condition 8 in each of the permits be amended to replace Method 3 with 3A, and that the SO₂ emission limits be clarified to base SO₂ emissions on the fuels sulfur content.

On September 17, 1993 the Division of Air Resources Management (DARM) responded to FGTC's request with a letter amending the permits. Included were the amendments for horsepower ratings, heat input, restrictions, and clarification of sulfur as the basis for SO₂ emissions.

It has recently come to FGTC's attention through the process of obtaining operating permits from the district offices that the request to replace Method 3 with Method 3A was not included in DARM's response. Until now it was assumed that the request had been included in the September 17, 1993 letter of amendment.

Accordingly, FGTC requests that DARM evaluate the request for the amendment to the testing method. This should not require an alternate sampling procedure since there is no regulatory requirement for determining the oxygen and carbon dioxide concentrations from compressor station engines.

Your expedited response to this request is appreciated since it relates to the issuance of our operating permits. Should you need additional information or have any questions please contact Mr. Alan Weatherford with FGTC at (407) 875-5816.

Sincerely,

A handwritten signature in cursive script that reads "Barry Andrews".

Barry D. Andrews, P.E.
Manager, Air Quality Services

cc : Alan Weatherford

Enclosure



Florida Gas Transmission Company

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

Barry

September 9, 1993

Certified Mail

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

Dear Mr. Fancy:

**RE: Request for Amendments to Permits
Florida Gas Transmission Company**

**Station 12 - Permit No. AC57-188869
Munson, Santa Rosa County, Florida**

**Station 13 - Permit No. AC67-189220
Caryville, Washington County, Florida**

**Station 14 - Permit No. AC20-189438
Quincy, Gadsden County, Florida**

**Station 15 - Permit No. AC62-189439
Perry, Taylor County, Florida**

**Station 16 - Permit No. AC04-189454
Brooker, Bradford County, Florida**

**Station 17 - Permit No. AC42-189455
Salt Springs, Marion County, Florida**

**Station 18 - Permit No. AC48-189456
Orlando, Orange County, Florida**

**Station 19 - Permit No. AC05-189665
Melbourne, Brevard County, Florida**

**Station 20 - Permit No. AC56-189457
Ft. Pierce, St. Lucie County, Florida**

This letter is in response to your request that Florida Gas Transmission Company (FGTC) follow up in writing certain requests made at a meeting held in your office on August 10, 1993.

Two of the issues discussed at that meeting in which FGTC was represented by Duane Pierce and Barry Andrews (ENSR Consulting and Engineering) dealt with the need to change method 3 to 3A in the Phase II construction permits and the confusion associated with the basis for the SO₂ emissions

Mr. Clair Fancy
Page 2 of 2
September 9, 1993

limits.

Accordingly, FGTC requests that specific condition 8 in the permits referenced above be amended to replace Method 3 with Method 3A. Since the regulations do not specify a particular Method, Method 3A is the preferred choice because it is easier to use and provides more accurate results.

In addition, FGTC would like to clarify that our initial concern that the SO2 emissions were high by a factor of 2 is no longer a problem. Therefore, we ask that you disregard our request in the June 29, 1993 letter to amend the SO2 emission limitations. We do note, however, that the SO2 emissions basis, originally stated at 10gr/100scf in the construction permits, is equivalent to the maximum amount of sulfur in the natural gas transported and should not represent the SO2 emission factor. Accordingly FGTC requests that the SO2 emission factor in specific condition 1 in each permit be amended as follows:

XXgr/100scf be amended to read XXgr8/100scf

FGTC appreciates your assistance in helping us resolve these permitting issues. Please call me at 407-875-5816 if you have any questions.

Sincerely,



Allan Weatherford, REM
Compliance Environmentalist

bc
aw0809cf

cc: Bernie Sandner	Duwood Mulford
Fred Griffin	Clayton Howell
Duane Pierce	James Dollar
Barry Andrews, ENSR	Sonny Beets
Christi Patrick	Les Shadd
Charlie Thompson	Leroy Coker
Levon Carroll	Wayne Daniels
Mike Teal	Riley Jackson
Glenn Sellars	Allan Vollmer



Lawton Chiles
Governor

Florida Department of Environmental Protection

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

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 AC57-188869, AC67-189220, AC20-189438, AC62-189439, AC04-189454, AC42-189455, AC48-189456, AC05-189655, and AC56-189457

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:

<u>Pollutant</u>	<u>lbs/hr</u>	<u>tons/yr</u>	<u>Emission Factor</u>
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:

<u>Pollutant</u>	<u>lbs/hr</u>	<u>tons/yr</u>	<u>Emission Factor</u>
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 8/100scf

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:

<u>Pollutant</u>	<u>lbs/hr</u>	<u>tons/yr</u>	<u>Emission Factor</u>
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 qr/100scf

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

<u>Pollutant</u>	<u>lbs/hr</u>	<u>tons/yr</u>	<u>Emission Factor</u>
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 qr 8/100scf

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:

<u>Pollutant</u>	<u>lbs/hr</u>	<u>tons/yr</u>	<u>Emission Factor</u>
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:

<u>Pollutant</u>	<u>lbs/hr</u>	<u>tons/yr</u>	<u>Emission Factor</u>
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:

<u>Pollutant</u>	<u>lbs/hr</u>	<u>tons/yr</u>	<u>Emission Factor</u>
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:

<u>Pollutant</u>	<u>lbs/hr</u>	<u>tons/yr</u>	<u>Emission Factor</u>
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:

<u>Pollutant</u>	<u>lbs/hr</u>	<u>tons/yr</u>	<u>Emission Factor</u>
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:

<u>Pollutant</u>	<u>lbs/hr</u>	<u>tons/yr</u>	<u>Emission Factor</u>
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:

<u>Pollutant</u>	<u>lbs/hr</u>	<u>tons/yr</u>	<u>Emission Factor</u>
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 8/100scf

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:

<u>Pollutant</u>	<u>lbs/hr</u>	<u>tons/yr</u>	<u>Emission Factor</u>
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:

<u>Pollutant</u>	<u>lbs/hr</u>	<u>tons/yr</u>	<u>Emission Factor</u>
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:

<u>Pollutant</u>	<u>lbs/hr</u>	<u>tons/yr</u>	<u>Emission Factor</u>
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:

<u>Pollutant</u>	<u>lbs/hr</u>	<u>tons/yr</u>	<u>Emission Factor</u>
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 8/100scf

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:

<u>Pollutant</u>	<u>lbs/hr</u>	<u>tons/yr</u>	<u>Emission Factor</u>
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:

<u>Pollutant</u>	<u>lbs/hr</u>	<u>tons/yr</u>	<u>Emission Factor</u>
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.

Mr. Allan Weatherford
Request for Amendments and Extensions
Page 12

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:

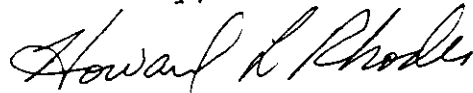
- Maximum natural gas consumption shall not exceed **20,569** scf/hr.
- Maximum heat input shall not exceed **21.19** MMBtu/hr.

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 13

CARRYVILLE, FLORIDA

Station	Model Run Factor	MAXIMUM 1-HR CONCENTRATION (ug/m**3)					Maximum Emission (lb/hr)				
		NOx	CO	VOCs	Particulates	SO2	NOx	CO	VOCs	Particulates	SO2
13 Permitted	3.888	41.213	43.157	10.109	0.311	1.788	10.60	11.10	2.60	0.08	0.46
13 Revised	3.507	41.733	43.838	10.451	0.386	1.894	11.90	12.50	2.98	0.11	0.54

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).

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

Station 13--Permit--Simple Terrain, no Downwash

SIMPLE TERRAIN INPUTS:

SOURCE TYPE = POINT
EMISSION RATE (G/S) = .1260
STACK HEIGHT (M) = 15.24
STK INSIDE DIAM (M) = .39
STK EXIT VELOCITY (M/S) = 30.07
STK GAS EXIT TEMP (K) = 560.93
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.	1.005	1	3.0	3.1	960.0	39.4	27.4	15.0	NO
200.	3.673	2	5.0	5.1	1600.0	29.7	36.4	20.7	NO
300.	3.888	3	5.0	5.2	1600.0	29.6	34.5	20.7	NO
400.	3.728	3	3.0	3.1	960.0	39.1	45.2	27.3	NO
500.	3.493	3	3.0	3.1	960.0	39.1	55.2	33.1	NO

MAXIMUM 1-HR CONCENTRATION AT OR BEYOND 1. M:
300. 3.888 3 5.0 5.2 1600.0 29.6 34.5 20.7 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	3.888	300.	0.

** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **

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

Station 13--Actual--Simple Terrain, no Downwash

SIMPLE TERRAIN INPUTS:

SOURCE TYPE = POINT
EMISSION RATE (G/S) = .1260
STACK HEIGHT (M) = 16.92
STK INSIDE DIAM (M) = .66
STK EXIT VELOCITY (M/S) = 10.35
STK GAS EXIT TEMP (K) = 560.93
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.	.7592	1	3.0	3.1	960.0	40.9	27.4	15.0	NO
200.	3.370	1	3.0	3.1	960.0	40.9	50.4	30.1	NO
300.	3.453	3	5.0	5.3	1600.0	31.1	34.5	20.7	NO
400.	3.439	3	4.0	4.2	1280.0	34.6	44.9	26.9	NO
500.	3.282	3	3.0	3.2	960.0	40.5	55.2	33.1	NO

MAXIMUM 1-HR CONCENTRATION AT OR BEYOND 1. M:

356.	3.507	3	4.0	4.2	1280.0	34.6	40.5	24.4	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	3.507	356.	0.

 ** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **

Air Emissions Estimates for Permitting

Station 13; Carryville, FL

	NOX (TPY)	CO (TPY)	NMHC (TPY)	SO2 (TPY)	PM (TPY)
Engines					
Compressor Engine 1	212.5	27.0	8.5	1.8	0.3
Compressor Engine 2	212.5	27.0	8.5	1.8	0.3
Compressor Engine 3	212.5	27.0	8.5	1.8	0.3
Compressor Engine 4	212.5	27.0	8.5	1.8	0.3
Compressor Engine 5	212.5	27.0	8.5	1.8	0.3
Compressor Engine 6	52.2	54.8	13.0	2.4	0.5
Emergency Generator Engine 1	1.8	0.2	0.1	0.0	0.0
Emergency Generator Engine 2	1.8	0.2	0.1	0.0	0.0
Air Compressor Engine 1 (de minimus)	0.0	0.0	0.0	0.0	0.0
Tanks					
Oil and Water Separator 1	0.0	0.0	0.6	0.0	0.0
Oil and Water Separator 2	0.0	0.0	0.6	0.0	0.0
Pipeline Condensate Tank 1	0.0	0.0	0.1	0.0	0.0
Waste Oil Storage Tank 1	0.0	0.0	0.0	0.0	0.0
Lube Oil Storage Tank 1 (de minimus)	0.0	0.0	0.0	0.0	0.0
Lube Oil Storage Tank 2 (de minimus)	0.0	0.0	0.0	0.0	0.0
Machines					
Parts Cleaning Machine 1	?	?	?	?	?
Parts Cleaning Machine 2	?	?	?	?	?
Paint Cleaning Machine 1	?	?	?	?	?
Blowdowns					
ESD and Maintenance blowdowns	0.0	0.0	1.6	0.0	0.0
Fugitive Emissions					
Valves	?	?	?	?	?
Flanges	?	?	?	?	?
Total Emissions	1118.1	190.4	58.6	11.4	2.1

Engine Emission Calculation Worksheet

Station 13; Carryville, FL

Emergency Generator Engine 1

Engine data

Annual use (maximum); hr./yr.	400 hr./yr.
Power; Hp	184 Hp
Power; Btu/hr. (@ 8026 (Btu/hr.)/Hp)	1476784 Btu/hr.
Fuel consumption; scf/hr. (@ 1040 Btu/scf)	1420 scf/hr.

Emissions data

NOx	22.0 g/Hp-hr.
CO	2.0 g/Hp-hr.
NMHC	1.0 g/Hp-hr.
SO2	0.1 grains/scf
PM	5.0 lb/MMscf

Emissions calculations

NOx	1.8 TPY
CO	0.2 TPY
NMHC	0.1 TPY
SO2	0.0 TPY
PM	0.0 TPY

Engine Emission Calculation Worksheet

Station 13; Carryville, FL

Emergency Generator Engine 2

Engine data

Annual use (maximum); hr./yr.	400 hr./yr.
Power; Hp	184 Hp
Power; Btu/hr. (@ 8026 (Btu/hr.)/Hp)	1476784 Btu/hr.
Fuel consumption; scf/hr. (@ 1040 Btu/scf)	1420 scf/hr.

Emissions data

NOx	22.0 g/Hp-hr.
CO	2.0 g/Hp-hr.
NMHC	1.0 g/Hp-hr.
SO2	0.1 grains/scf
PM	5.0 lb/MMscf

Emissions calculations

NOx	1.8 TPY
CO	0.2 TPY
NMHC	0.1 TPY
SO2	0.0 TPY
PM	0.0 TPY

FIXED ROOF TANK VOLATILE ORGANIC COMPOUND EMISSIONS

COMPANY: Florida Gas Transmission Co.

DATE: 5/9/93

LOCATION: Station 13; Carryville, FL

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

TANK PHYSICAL DATA

TANK IDENTIFICATION NUMBER	Oil and Water Separator 1
EMISSION CONTROLS	None
PERCENT EFFICIENCY	0.
TANK PAINT COLOR	Black
TANK DIAMETER (FT), D	10.0
TANK HEIGHT (FT), H	15.0
PAINT FACTOR, Fp	1.58
TANK CAPACITY (BBLs), VB	210
TANK CAPACITY (GALLONS), V	8812
ADJUSTMENT FACTOR FOR DIA., C	0.5

WEATHER DATA

AVG. DAILY TEMP. CHANGE (DEG F), DeltaT	20.0
STORAGE TEMP. (DEG. F)	72.4
AVG. ATM. PRESS. (PSIA), Pa	14.7

PRODUCT PHYSICAL DATA

MATERIAL STORED	Condensate, oil, water
MOLECULAR WEIGHT (##/MOLE) Mv	53.0
VAPOR PRESS. AT STG. TEMP. (DEG. F), P	2.8
PRODUCT FACTOR, KsubC (CRUDE 0.65, OTHER 1.0)	1.0

THROUGHPUT DATA

DAYS IN SERVICE, Ds	365
VAPOR SPACE HEIGHT (FT), VH	7.5
TANK THROUGHPUT (BBLs FOR DAYS IN SERVICE), TT	7000
FILLING RATE (BBLs/HR), FR	70
NUMBER OF TURNS OVERS FOR DAYS IN SERVICE, N	33.4
TURNOVER FACTOR, Kn	1

FIXED ROOF TANK BREATHING LOSS, # Lb =
 $0.0226 * Mv * ((P / (Pa - P))^{0.68}) * (D^{1.73}) * (VH^{0.51}) * (\Delta T^{0.5}) * Fp * C * Kc * Ds / 365 * (100 - \%eff) / 100$

FIXED ROOF TANK WORKING LOSS, # Lw =
 $0.000024 * Mv * P * V * N * Kn * Kc * (100 - \%eff) / 100$

VOLATILE ORGANIC COMPOUND LOSSES	BREATHING	WORKING	TOTAL
POUNDS FOR DAYS SERVICE =	237.4	1047.1	1284.5
TONS FOR DAYS SERVICE =	0.1	0.5	0.6
POUNDS PER YEAR =	237.4	1047.1	1284.5
TONS PER YEAR =	0.1	0.5	<u>0.6</u>
AVERAGE POUNDS PER HOUR =	0.0	0.1	0.1
MAXIMUM POUNDS PER HOUR =	0.1	10.5	10.5

FIXED ROOF TANK VOLATILE ORGANIC COMPOUND EMISSIONS

COMPANY: Florida Gas Transmission Co.

DATE: 5/9/93

LOCATION: Station 13; Carryville, FL

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

TANK PHYSICAL DATA

TANK IDENTIFICATION NUMBER	Oil and Water Separator 2
EMISSION CONTROLS	None
PERCENT EFFICIENCY	0
TANK PAINT COLOR	Black
TANK DIAMETER (FT), D	10.0
TANK HEIGHT (FT), H	15.0
PAINT FACTOR, Fp	1.58
TANK CAPACITY (BBLs), VB	210
TANK CAPACITY (GALLONS), V	8812
ADJUSTMENT FACTOR FOR DIA., C	0.5

WEATHER DATA

AVG. DAILY TEMP. CHANGE (DEG F), DeltaT	20.0
STORAGE TEMP. (DEG. F)	72.4
AVG. ATM. PRESS. (PSIA), Pa	14.7

PRODUCT PHYSICAL DATA

MATERIAL STORED	Condensate, oil, water
MOLECULAR WEIGHT (##MOLE) Mv	53.0
VAPOR PRESS. AT STG. TEMP. (DEG. F), P	2.8
PRODUCT FACTOR, KsubC (CRUDE 0.65, OTHER 1.0)	1.0

THROUGHPUT DATA

DAYS IN SERVICE, Ds	365
VAPOR SPACE HEIGHT (FT), VH	7.5
TANK THROUGHPUT (BBLs FOR DAYS IN SERVICE), TT	7000
FILLING RATE (BBLs/HR), FR	70
NUMBER OF TURNOVERS FOR DAYS IN SERVICE, N	33.4
TURNOVER FACTOR, Kn	1

FIXED ROOF TANK BREATHING LOSS, # Lb =
 $0.0226 * Mv * ((P / (Pa - P))^{0.68}) * (D^{1.73}) * (VH^{0.51}) * (\Delta T^{0.5}) * Fp * C * Kc * Ds / 365 * (100 - \%eff) / 100$

FIXED ROOF TANK WORKING LOSS, # Lw =
 $0.000024 * Mv * P * V * N * Kn * Kc * (100 - \%eff) / 100$

VOLATILE ORGANIC COMPOUND LOSSES	BREATHING	WORKING	TOTAL
POUNDS FOR DAYS SERVICE =	237.4	1047.1	1284.5
TONS FOR DAYS SERVICE =	0.1	0.5	0.6
POUNDS PER YEAR =	237.4	1047.1	1284.5
TONS PER YEAR =	0.1	0.5	<u>0.6</u>
AVERAGE POUNDS PER HOUR =	0.0	0.1	0.1
MAXIMUM POUNDS PER HOUR =	0.1	10.5	10.5

FIXED ROOF TANK VOLATILE ORGANIC COMPOUND EMISSIONS

COMPANY: Florida Gas Transmission Co.

DATE: 5/9/93

LOCATION: Station 13; Carryville, FL

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

TANK PHYSICAL DATA

TANK IDENTIFICATION NUMBER	Condensate 1
EMISSION CONTROLS	None
PERCENT EFFICIENCY	0
TANK PAINT COLOR	Black
TANK DIAMETER (FT), D	10.0
TANK HEIGHT (FT), H	15.0
PAINT FACTOR, Fp	1.58
TANK CAPACITY (BBLs), VB	210
TANK CAPACITY (GALLONS), V	8812
ADJUSTMENT FACTOR FOR DIA., C	0.5

WEATHER DATA

AVG. DAILY TEMP. CHANGE (DEG F), DeltaT	20.0
STORAGE TEMP. (DEG. F)	72.4
AVG. ATM. PRESS. (PSIA), Pa	14.7

PRODUCT PHYSICAL DATA

MATERIAL STORED	Condensate
MOLECULAR WEIGHT (##MOLE) Mv	53.0
VAPOR PRESS. AT STG. TEMP. (DEG. F), P	2.8
PRODUCT FACTOR, KsubC (CRUDE 0.65, OTHER 1.0)	1.0

THROUGHPUT DATA

DAYS IN SERVICE, Ds	365
VAPOR SPACE HEIGHT (FT), VH	7.5
TANK THROUGHPUT (BBLs FOR DAYS IN SERVICE), TT	140
FILLING RATE (BBLs/HR), FR	140
NUMBER OF TURNOVERS FOR DAYS IN SERVICE, N	0.7
TURNOVER FACTOR, Kn	1

FIXED ROOF TANK BREATHING LOSS, # Lb =
 $0.0226 * Mv * ((P / (Pa - P))^{0.68}) * (D^{1.73}) * (VH^{0.51}) * (\Delta T^{0.5}) * Fp * C * Kc * Ds / 365 * (100 - \%eff) / 100$

FIXED ROOF TANK WORKING LOSS, # Lw =
 $0.000024 * Mv * P * V * N * Kn * Kc * (100 - \%eff) / 100$

VOLATILE ORGANIC COMPOUND LOSSES	BREATHING	WORKING	TOTAL
POUNDS FOR DAYS SERVICE =	237.4	20.9	258.4
TONS FOR DAYS SERVICE =	0.1	0.0	0.1
POUNDS PER YEAR =	237.4	20.9	258.4
TONS PER YEAR =	0.1	0.0	0.1
AVERAGE POUNDS PER HOUR =	0.0	0.0	0.0
MAXIMUM POUNDS PER HOUR =	0.1	20.9	21.0

FIXED ROOF TANK VOLATILE ORGANIC COMPOUND EMISSIONS

COMPANY: Florida Gas Transmission Co.

DATE: 5/9/93

LOCATION: Station 13; Carryville, FL

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

TANK PHYSICAL DATA

TANK IDENTIFICATION NUMBER	Waste Oil 1
EMISSION CONTROLS	None
PERCENT EFFICIENCY	0
TANK PAINT COLOR	Black
TANK DIAMETER (FT), D	8.0
TANK HEIGHT (FT), H	10.0
PAINT FACTOR, Fp	1.58
TANK CAPACITY (BBLS), VB	90
TANK CAPACITY (GALLONS), V	3760
ADJUSTMENT FACTOR FOR DIA., C	0.4

WEATHER DATA

AVG. DAILY TEMP. CHANGE (DEG F), DeltaT	20.0
STORAGE TEMP. (DEG. F)	72.4
AVG. ATM. PRESS. (PSIA), Pa	14.7

PRODUCT PHYSICAL DATA

MATERIAL STORED	Waste oil
MOLECULAR WEIGHT (##/MOLE) Mv	190.0
VAPOR PRESS. AT STG. TEMP. (DEG. F), P	0.0019
PRODUCT FACTOR, KsubC (CRUDE 0.65, OTHER 1.0)	1.0

THROUGHPUT DATA

DAYS IN SERVICE, Ds	365
VAPOR SPACE HEIGHT (FT), VH	7.5
TANK THROUGHPUT (BBLS FOR DAYS IN SERVICE), TT	140
FILLING RATE (BBLS/HR), FR	70
NUMBER OF TURNOVERS FOR DAYS IN SERVICE, N	1.6
TURNOVER FACTOR, Kn	1

FIXED ROOF TANK BREATHING LOSS, # Lb =
 $0.0226 * Mv * ((P / (Pa - P))^{0.68}) * (D^{1.73}) * (VH^{0.51}) * (\Delta T^{0.5}) * Fp * C * Kc * Ds / 365 * (100 - \%eff) / 100$

FIXED ROOF TANK WORKING LOSS, # Lw =
 $0.000024 * Mv * P * V * N * Kn * Kc * (100 - \%eff) / 100$

VOLATILE ORGANIC COMPOUND LOSSES	BREATHING	WORKING	TOTAL
POUNDS FOR DAYS SERVICE =	2.8	0.1	2.9
TONS FOR DAYS SERVICE =	0.0	0.0	0.0
POUNDS PER YEAR =	2.8	0.1	2.9
TONS PER YEAR =	0.0	0.0	<u>0.0</u>
AVERAGE POUNDS PER HOUR =	0.0	0.0	0.0
MAXIMUM POUNDS PER HOUR =	0.0	0.0	0.0

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 13
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
COOP. LS-8-SG	Engine 1	X	Yes	None
COOP. LS-8-SG	Engine 2	X	Yes	None
COOP. LS-8-SG	Engine 3	X	Yes	None
COOP. LS-8-SG	Engine 4	X	Yes	None
COOP. LS-8-SG	Engine 5	X	Yes	None
CB GMVH-12	Engine 6	X	Yes	None
Emergency Generator # 1	Omitted	X	No	Emission rates for NOx, CO, NM-NE HC, SO2, and PM
Emergency Generator # 2	Omitted	X	No	Emission rates for NOx, CO, NM-NE HC, SO2, and PM
Air Compressor # 1	Omitted	X	No	Emission rates for NOx, CO, NM-NE HC, SO2, and PM, Horsepower
Oil and Water Sep. # 1	Omitted	X	No	Emission rate for NM-NE HC
Oil and Water Sep. # 2	Omitted	X	No	Emission rate for NM-NE HC
Waste Oil Stor. # 1	Omitted	X	No	Emission rate for NM-NE HC
Pipeline Condensate # 1	Omitted	X	No	Emission rate for NM-NE HC
Lube Oil Storage # 1	Omitted	X	No	Emission rate for NM-NE HC
Lube Oil Storage # 2	Omitted	X	No	Emission rate for NM-NE HC
Part Cleaner # 1	Omitted	X	No	Emission rate for VOC's
Part Cleaner # 2	Omitted	X	No	Emission rate for VOC's
Paint Cleaner # 1	Omitted	X	No	Emission rate for VOC's
ESD & Blowdown Stacks	Omitted	X	No	Emission rates, Volume B/D, Stack Info

F
 NATURAL GAS COMPRESSION FACILITY
 STATION 13
 CARRYVILLE, 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)				PM
						NOX	VOC	CO	SO2	
ENGINE # 1	PERMITTED UNIT	_____	6374	2000	6000	212.5	8.5	27	1.8	0.3
ENGINE # 2	PERMITTED UNIT	_____	6375	2000	6000	212.5	8.5	27	1.8	0.3
ENGINE # 3	PERMITTED UNIT	_____	6376	2000	6000	212.5	8.5	27	1.8	0.3
ENGINE # 4	PERMITTED UNIT	_____	7019	2000	6200	212.5	8.5	27	1.8	0.3
ENGINE # 5	PERMITTED UNIT	_____	7053	2000	6200	212.5	8.5	27	1.8	0.3
ENGINE # 6	PERMITTED UNIT	_____	48488	2700	7300	52.15	13	54.8	2.4	0.5
						1115	56	100	11	2

Phase I Station Characteristics

02-Jun-92
CS13.WK1

Compressor Station: Number 13
 Name: Carryville
 County: Washington
 Nearest City: Caryville
 Compressor Supervisor: Buddy Morris
 Mailing Address: Route 1, Box 553
 Caryville, Florida 32427-9801
 Telephone: 904-535-2350
 Latitude: 30-40-40
 Longitude: 85-50-40
 UTM Zone: 16
 UTM Easting: 610.69 km
 UTM Northing: 3,394.28 km
 Elevation (ft): 100

Phase I Engine Characteristics

Engine Identification	1	2	3	4	5
Permit Number					
Serial Number	6374	6375	6376	7019	7053
Operating Time					
Hours/Day	24	24	24	24	24
Days/Week	7	7	7	7	7
Weeks/Year	52	52	52	52	52
Engine Type	Recip	Recip	Recip	Recip	Recip
Date of Installation	1958	1958	1958	1966	1968
Engine Make	Cooper	Cooper	Cooper	Cooper	Cooper
Engine Model	LS-8-SG	LS-8-SG	LS-8-SG	LS-8-SG	LS-8-SG
Horsepower Rating	2000	2000	2000	2000	2000
Air Charging	Turbo.	Turbo.	Turbo.	Turbo.	Turbo.
Exhaust Temperature (F)	875	875	875	875	875
Mass Flow Rate (lbs/hr) (a)	21000	21000	21000	21000	21000
Volumetric Flow Rate (acfm)	11760	11760	11760	11760	11760
Volumetric Flow Rate (dscfm)	4279	4279	4279	4279	4279
Exit Velocity (af/s)	154.5	154.5	154.5	154.5	154.5
Water Vapor Content (%)	8	8	8	8	8
Ave. Fuel Consumption (MMCF/Hr) (b)	0.0144	0.0144	0.0144	0.0144	0.0144
Max. Fuel Consumption (MMCF/Hr) (b)	0.0144	0.0144	0.0144	0.0144	0.0144
Specific Fuel Consump. (BTU/bhp-hr)	6000	6000	6000	6200	6200
Maximum Heat Input (MMBTU/Hr)	15	15	15	15	15
Stack Height (ft)	26.42	26.42	26.42	26.42	26.42
Stack Diameter (in)	15.25	15.25	15.25	15.25	15.25
Stack to Building Offset (ft)	17.00	17.00	17.00	17.00	17.00
Building Height (ft) (c)	32.42	32.42	32.42	32.42	32.42
Building Length (ft) (c)	180.00	180.00	180.00	180.00	180.00
Building Width (ft) (c)	55.00	55.00	55.00	55.00	55.00

Phase I Fuel Characteristics

Fuel Type	N.G.	N.G.	N.G.	N.G.	N.G.
Heating Value (BTU/CF)	1040	1040	1040	1040	1040
Heat Capacity (BTU/lb)	23077	23077	23077	23077	23077
Density (lb/cubic ft)	0.0455	0.0455	0.0455	0.0455	0.0455
Percent Sulfur (%) (d)	0.031	0.031	0.031	0.031	0.031
Percent Ash (%)	N/A	N/A	N/A	N/A	N/A

Phase I Emissions Rates by Engine for Station 13

Engine Identification	1	2	3	4	5
Grams/BHP-Hour					
NOX	11.000	11.000	11.000	11.000	11.000
CO	1.400	1.400	1.400	1.400	1.400
NMHC	0.440	0.440	0.440	0.440	0.440
SO2 (e)	0.093	0.093	0.093	0.093	0.093
PM (f)	0.016	0.016	0.016	0.016	0.016
Pounds/Hour					
NOX	48.51	48.51	48.51	48.51	48.51
CO	6.17	6.17	6.17	6.17	6.17
NMHC	1.94	1.94	1.94	1.94	1.94
SO2	0.41	0.41	0.41	0.41	0.41
PM	0.07	0.07	0.07	0.07	0.07
Tons/Year					
NOX	212.47	212.47	212.47	212.47	212.47
CO	27.04	27.04	27.04	27.04	27.04
NMHC	8.50	8.50	8.50	8.50	8.50
SO2	1.79	1.79	1.79	1.79	1.79
PM	0.31	0.31	0.31	0.31	0.31

Phase I Emissions Rates for Total Station

Grams/BHP-Hour	
NOX	11.000
CO	1.400
NMHC	0.440
SO2	0.093
PM	0.016
Pounds/Hour	
NOX	242.55
CO	30.87
NMHC	9.70
SO2	2.04
PM	0.36
Tons/Year	
NOX	1062.37
CO	135.21
NMHC	42.49
SO2	8.94
PM	1.57

SOURCE CLASSIFICATION WITH RESPECT TO PSD

MAJOR 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

23-Jun-92
CS13.WK1

Compressor Station: Number 13
 Name: Carryville
 County: Washington
 Nearest City: Caryville
 Compressor Supervisor: Buddy Morris
 Mailing Address: Route 1, Box 553
 Caryville, Florida 32427-9801
 Telephone: 904-535-2350
 Latitude: 30-40-40
 Longitude: 85-50-40
 UTM Zone: 16
 UTM Easting: 610.69 km
 UTM Northing: 3,394.28 km
 Elevation (ft): 100

Phase II Engine Characteristics

Engine Identification	6
Permit Number	
Serial Number	48488
Operating Time	
Hours/Day	24
Days/Week	7
Weeks/Year	52
Engine Type	Recip
Date of Installation	1991
Engine Make	Cooper-Bessemer
Engine Model	GMVH-12
Horsepower Rating	2700
Air Charging	Turbo.
Exhaust Temperature (F)	550
Mass Flow Rate (lbs/hr) (a)	46070
Volumetric Flow Rate (acfm)	19753.2
Volumetric Flow Rate (dscfm)	7511
Exit Velocity (af/s)	89.29
Water Vapor Content (%)	8
Ave. Fuel Consumption (MMCF/Hr) (b)	0.0168
Max. Fuel Consumption (MMCF/Hr) (b)	0.0168
Specific Fuel Consump. (BTU/bhp-hr)	7300
Maximum Heat Input (MMBTU/Hr)	17.68
Stack Height (ft)	55.5
Stack Diameter (in)	26
Stack to Building Offset (ft)	17.00
Building Height (ft) (c)	32.42
Building Length (ft) (c)	220.00
Building Width (ft) (c)	55.00

Phase II Fuel Characteristics

Fuel Type	N.G.
Heating Value (BTU/CF)	1040
Heat Capacity (BTU/lb)	22857
Density (lb/cubic ft)	0.0455
Percent Sulfur (%) (d)	0.031
Percent Ash (%)	N/A

Phase II Emissions Rates by Engine for Station 13

Engine Identification 6

Grams/BHP-Hour		
	NOX	2.000
	CO	2.100
	NMHC	0.500
	SO2 (e)	0.090
	PM (f)	0.018
Pounds/Hour		
	NOX	11.91
	CO	12.50
	NMHC	2.98
	SO2	0.54
	PM	0.10
Tons/Year		
	NOX	52.15
	CO	54.76
	NMHC	13.04
	SO2	2.35
	PM	0.46

Phase II Emissions Rates for Total Station

Grams/BHP-Hour		
	NOX	9.086
	CO	1.549
	NMHC	0.453
	SO2	0.092
	PM	0.016
Pounds/Hour		
	NOX	254.46
	CO	43.37
	NMHC	12.68
	SO2	2.58
	PM	0.46
Tons/Year		
	NOX	1114.52
	CO	189.97
	NMHC	55.53
	SO2	11.29
	PM	2.02

SOURCE CLASSIFICATION WITH RESPECT TO PSD

MAJOR 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.

NATURAL GAS COMPRESSION FACILITY
STATION 13
CARRYVILLE, FLORIDA

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

PURPOSE OF THE AIR COMPRESSOR: TO PROVIDE AIR FOR TIRES, ETC..

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	_____	_____	184	_____	_____	_____	_____	_____	
EMERGENCY GENERATOR # 2	NOT PERMITTED	_____	_____	184	_____	_____	_____	_____	_____	
AIR COMPRESSOR # 1	NOT PERMITTED	_____	_____	_____	_____	_____	_____	_____	_____	
						0	0	0	0	0

FLORIDA GAS TRANSMISSION COMPANY
COMPRESSOR STATION EMISSIONS QUESTIONNAIRE
STATION No. 13

GENERATORS SETS

UNIT NUMBER 19543 # 1

Installed	EXISTING
Permitted	NO
Internal Combustion Engine	YES
If Int. Comb. Engine, Is Catalytic Converter present	NO
Manufacturer	Waukesha
Model	6WAKCU
Actual Maximum Hours of Operation (Hr / Year)	250 400
If Internal Combustion Engine Complete the following information:	
Type of Fuel Used	N.G.
BTU Rating (MMBTU/HR)	8 mmcf (approx)
Horse Power Rating	184
Stack Height Above Grade (ft)	9'-10.5"
Stack Diameter (inch)	6
Location of Stack(s)	N of W end of aux. bldg. ; horizontal
Stack Temperature (F)	500 (approx)

UNIT NUMBER 19542 # 2

Installed	EXISTING
Permitted	NO
Internal Combustion Engine	YES
If Int. Comb. Engine, Is Catalytic Converter present	NO
Manufacturer	Waukesha
Model	6WAKCU
Actual Maximum Hours of Operation (Hr / Year)	250 400
If Internal Combustion Engine Complete the following information:	
Type of Fuel Used	N.G.
BTU Rating (MMBTU/HR)	8 mmcf (approx)
Horse Power Rating	184
Stack Height Above Grade (ft)	9'-10.5"
Stack Diameter (inch)	6
Location of Stack(s)	N of W end of aux. bldg. ; horizontal
Stack Temperature (F)	500 (approx)

FLORIDA GAS TRANSMISSION COMPANY
COMPRESSOR STATION EMISSIONS QUESTIONNAIRE
STATION No. 13

OTHER SOURCES

Unit No. 397494	EXISTING
Permitted	NO
Purpose of Unit	Air Compressor # 1
Type	I.C.
Manufacturer	Waukesha
Model	VRG - 220 U
Size (BTU ,or HP ,or Kw)	220 c.i.,3.875 bore,4.665 stroke, 8:1 compr.
Fuel Used (if applicable)	N.G.
Stack Parameters (ft)	H = 13 ft Dia. = 2"

OTHER.

C
 NATURAL GAS COMPRESSION FACILITY
 STATION 13
 CARRYVILLE, FLORIDA

PURPOSE OF OIL/WATER SEPARATOR TANKS: TO SEPARATE AN OIL AND WATER MIXTURE IN ORDER TO REUSE THE WATER.

PURPOSE OF WASTE OIL TANK: TO STORE EXCESS OIL COLLECTED IN COMPRESSOR STATION PROCESSES.

PURPOSE OF PIPELINE CONDENSATE TANK: TO STORE LIGHT HYDROCARBON LIQUID OBTAINED BY CONDENSATION OF HYDROCARBON VAPORS.

PURPOSE OF LUBE OIL STORAGE TANKS: TO STORE LUBE OIL USED FOR ENGINE OPERATIONS.

VESSEL	PERMIT STATUS	SOURCE ID	CAPACITY (GAL)	PERMIT FUGITIVE EMISSION RATES (TPY) NMHC
OIL/WATER SEPARATOR # 1	NOT PERMITTED	_____	8820	_____
OIL/WATER SEPARATOR # 2	NOT PERMITTED	_____	8820	_____
WASTE OIL TANK # 1	NOT PERMITTED	_____	8820	_____
PIPELINE CONDENSATE # 1	NOT PERMITTED	_____	8820	_____
LUBE OIL STORAGE # 1	NOT PERMITTED	_____	10000	_____
LUBE OIL STORAGE # 2	NOT PERMITTED	_____	3000	_____



Florida Gas Transmission Company

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

September 9, 1993

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

Dear Mr. Fancy:

**RE: Request for Amendments to Permits
Florida Gas Transmission Company**

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

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

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

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

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

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

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

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

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

This letter is in response to your request that Florida Gas Transmission Company (FGTC) follow up in writing certain requests made at a meeting held in your office on August 10, 1993.

Two of the issues discussed at that meeting in which FGTC was represented by Duane Pierce and Barry Andrews (ENSR Consulting and Engineering) dealt with the need to change method 3 to 3A in the Phase II construction permits and the confusion associated with the basis for the SO₂ emissions

Certified Mail

RECEIVED

SEP 13 1993

Division of Air
Resources Management

Mr. Clair Fancy
Page 2 of 2
September 9, 1993

limits.

Accordingly, FGTC requests that specific condition 8 in the permits referenced above be amended to replace Method 3 with Method 3A. Since the regulations do not specify a particular Method, Method 3A is the preferred choice because it is easier to use and provides more accurate results.

In addition, FGTC would like to clarify that our initial concern that the SO₂ emissions were high by a factor of 2 is no longer a problem. Therefore, we ask that you disregard our request in the June 29, 1993 letter to amend the SO₂ emission limitations. We do note, however, that the SO₂ emissions basis, originally stated at 10gr/100scf in the construction permits, is equivalent to the maximum amount of sulfur in the natural gas transported and should not represent the SO₂ emission factor. Accordingly FGTC requests that the SO₂ emission factor in specific condition 1 in each permit be amended as follows:

XXgr/100scf be amended to read XXgrS/100scf

FGTC appreciates your assistance in helping us resolve these permitting issues. Please call me at 407-875-5816 if you have any questions.

Sincerely,



Allan Weatherford, REM
Compliance Environmentalist

bc
aw0809cf

cc: Bernie Sandner	Duwood Mulford
Fred Griffin	Clayton Howell
Duane Pierce	James Dollar
Barry Andrews, ENSR	Sonny Beets
Christi Patrick	Les Shadd
Charlie Thompson	Leroy Coker
Levon Carroll	Wayne Daniels
Mike Teal	Riley Jackson
Glenn Sellars	Allan Vollmer

J. Nelson



Florida Gas Transmission Company

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

July 16, 1993

RECEIVED

JUL 19 1993

Division of Air
Resources Management

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: Corrections to our June 29, 1993 letter

Upon further review, we have identified several typographical errors in our June 29 letter to you. I've attached a complete corrected letter in addition to highlighted pages that show the corrections.

I apologize for the errors. Please call me at 407-875-5816 if you have any questions.

Sincerely,

Allan Weatherford, REM
Compliance Environmentalist

bc
aw0716cf
attach

cc: Raymond Young
Duane Pierce
Barry Andrews
Ed Middleswart
Robert Leetch
Chuck Collins
Isadore Goldman
J. Harper, EPA
J. Dunyak, NPS



Florida Gas Transmission Company

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

RECEIVED
DER - MAIL ROOM

1993 JAN 20 AM 11:00

January 18, 1993

Mr. C. H. Fancy, Chief
Bureau of Air Regulation
Florida Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Dear Mr. Fancy:

Re: Permit Amendment Processing Fee for
Nine Florida Gas Transmission Permits

As instructed in your January 13, 1993 letter, a check for \$250 is enclosed to cover the permit amendment processing fee for all nine of the subject permits.

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

Very truly yours,

Allan Weatherford
Compliance Environmentalist

AW0118a.swp

Enclosure

cc: Chuck Truby
Raymond Young

CHECK NO.
0622504038

FLORIDA GAS TRANSMISSION COMPANY
P.O. BOX 1188
HOUSTON, TEXAS 77251-1188

DATE OF CHECK

June 29, 1993



PAY EXACTLY Two Thousand Two Hundred Fifty Dollar DOLLARS 2,250.00
This check is VOID unless printed on BLUE background.

PAY TO THE ORDER OF
Florida Dept of Environmental Regulation
2600 Blair Stone Road
Tallahassee FL 32399-2400

Betty J. Clark

NOT VALID OVER \$5,000 UNLESS COUNTERSIGNED

UNITED BANK OF GRAND JUNCTION

⑈0622504038⑈ ⑆102100918⑆ 606 0034079⑈

RECEIVED
JUN 30 1993

CHECK NO.

REMITTANCE STATEMENT

Division of Air Resources Management

VOUCHER NO.	INVOICE DATE	INVOICE NUMBER	PURCHASE ORDER	AMOUNT		
				GROSS	DISCOUNT	NET
		<i>Fee</i>				
Amendment to Air Emissions Construction Permits for C/S's 12-20 Florida Gas Transmission Company						
<p><i>7/2</i></p> <p><i>Debra,</i></p> <p><i>This was received with the processing fee (\$250 - \$250 for 9 amendments) on 6/30. I haven't logged it in yet - or made any copies - I can do that when I return on 7/13. It looks like FGT already copied the districts. I'll get with you on it when I get back.</i></p> <p><i>Pat</i></p>						

Special instructions

the Phase II engine additions addressed in this letter. In preparing the applications, I noted that for some compressor stations, engines which were slightly larger than that proposed in the construction permit applications have been installed.

To resolve this situation, FGT requests that those permits for stations in which larger engines (increased horsepower) than permitted be amended to include the correct horsepower, fuel consumption and heat input. In addition, FGT requests that the remaining permits (those for which there have been no changes in horsepower) be amended to include fuel consumption levels and heat inputs which are more realistic based on our compliance testing. In most cases it was observed that the fuel consumption levels provided by the manufacturer were exceeded during compliance testing.

Because the construction permits for the referenced compressor engines are soon to expire (June 30, 1993), FGT is requesting that the construction permits be extended until September 30, 1993 to provide ample time to process the requested changes to the construction permits and obtain the operating permits.

FGT has enclosed a check for \$2,250.00 to cover the cost of these permitting actions. Please note that FGT is not requesting that any emissions limitations be increased for any of the compressor stations. Even though the horsepower was increased from what was originally permitted at some stations, the actual emissions determined from the compliance testing were well below permitted levels.

Specifically, horsepower increases have occurred at Station 12 (4100 HP instead of 4000 HP), 13, 14, and 18 (2700 HP instead of 2400 HP), and 19 (2600 HP instead of 2500 HP). In most cases the higher potential emission rates do not result in higher ambient concentrations since the compressor engines were equipped with higher stack heights than that proposed in the construction permit applications. For cases in which the increased potential emission rates due to changes in horsepower resulted in higher ambient concentrations, the concentrations still remained well below any ambient air quality standards. A summary of the screening modeling conducted for each station has been provided for your review. Again this modeling was based on the increased potential to emit. FGT is not requesting that permitted emissions limitations be increased.

FGT requests that the permit for Station 12 (AC57-188869) be amended to indicate the correct horsepower (4100 HP) and that the permit for this station be modified as follows:

Specific Condition 1 which currently reads

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

<u>Pollutant</u>	<u>lbs/hr</u>	<u>tons/yr</u>	<u>Emission Factor</u>
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 (PM10)	0.14	0.61	5 lbs/MMscf
Sulfur Dioxide	0.8	3.5	10 gr/100scf

so that it reads

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

<u>Pollutant</u>	<u>lbs/hr</u>	<u>tons/yr</u>	<u>Emission Factor</u>
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 (PM10)	0.14	0.61	4.03 lbs/MMscf
Sulfur Dioxide	0.4	1.8	8.06 gr/100scf

Modify Specific Condition 5 which currently reads

"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.

so that it reads

"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.

FGT requests that the permits for Stations 13 (AC67-189220) and 14 (AC20-189438) be amended to indicate the correct horsepower (2700 HP) and that the permits for these stations be modified as follows:

Modify Specific Condition 1 which currently reads

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

<u>Pollutant</u>	<u>lbs/hr</u>	<u>tons/yr</u>	<u>Emission Factor</u>
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 (PM10)	0.08	0.4	5 lbs/MMscf
Sulfur Dioxide	0.46	20	10 gr/100scf

so that it reads

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

<u>Pollutant</u>	<u>lbs/hr</u>	<u>tons/yr</u>	<u>Emission Factor</u>
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 (PM10)	0.08	0.4	3.87 lbs/MMscf
Sulfur Dioxide	0.23	10	7.74 gr/100scf

Modify Specific Condition 5 which currently reads

"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.

so that it reads

"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.

FGT requests that the permit for Station 18 (AC48-189456) be amended to indicate the correct horsepower (2700 HP) and that the permit for this station be modified as follows:

Modify Specific Condition 1 which currently reads

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

<u>Pollutant</u>	<u>lbs/hr</u>	<u>tons/yr</u>	<u>Emission Factor</u>
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)	2.61	11.6	0.5 g/bhp-hr
Particulate Matter (TSP)	0.08	0.4	5 lbs/MMscf
Particulate Matter (PM10)	0.476	2.2	5 lbs/MMscf
Sulfur Dioxide	0.476	2.2	10 gr/100scf

so that it reads

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

<u>Pollutant</u>	<u>lbs/hr</u>	<u>tons/yr</u>	<u>Emission Factor</u>
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 (PM10)	0.08	0.4	3.95 lbs/MMscf
Sulfur Dioxide	0.23	1.0	7.90 gr/100scf

Modify Specific Condition 5 which currently reads

"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.

so that it reads

"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.

FGT requests that the permit for Station 19 (AC05-189665) be amended to indicate the correct horsepower (2600 HP) and that the permit for this station be modified as follows:

Modify Specific Condition 1 which currently reads

"Maximum allowable emissions from each engine shall not exceed the emission rates as follows:"

<u>Pollutant</u>	<u>lbs/hr</u>	<u>tons/yr</u>	<u>Emission Factor</u>
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 (PM10)	0.09	0.4	5 lbs/MMscf
Sulfur Dioxide	0.51	2.2	10 gr/100scf

so that it reads

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

<u>Pollutant</u>	<u>lbs/hr</u>	<u>tons/yr</u>	<u>Emission Factor</u>
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 (PM10)	0.09	0.4	3.90 lbs/MMscf
Sulfur Dioxide	0.25	1.1	7.80 gr/100scf

Modify Specific Condition 5 which currently reads

"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.

so that it reads

"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.

FGT requests that the permit for Station 15 (AC62-189439) be modified as follows:

Modify Specific Condition 1 which currently reads

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

<u>Pollutant</u>	<u>lbs/hr</u>	<u>tons/yr</u>	<u>Emission Factor</u>
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 f/bhp-hr
Particulate Matter (TSP)	0.13	0.6	5 lbs/MMscf
Particulate Matter (PM10)	0.13	0.6	5 lbs/MMscf
Sulfur Dioxide	0.75	3.3	10 gr/100scf

so that it reads

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

<u>Pollutant</u>	<u>lbs/hr</u>	<u>tons/yr</u>	<u>Emission Factor</u>
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 (PM10)	0.13	0.6	4.23 lbs/MMscf
Sulfur Dioxide	0.38	1.7	8.53 gr/100scf

Modify Specific Condition 5 which currently reads

"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.

so that it reads

"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.

FGT requests that the permit for Station 16 (AC04-189454) be modified as follows:

Modify Specific Condition 1 which currently reads

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

<u>Pollutant</u>	<u>lbs/hr</u>	<u>tons/yr</u>	<u>Emission Factor</u>
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 (PM10)	0.13	0.6	5 lbs/MMscf
Sulfur Dioxide	0.75	3.3	10 gr/100scf

so that it reads

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

<u>Pollutant</u>	<u>lbs/hr</u>	<u>tons/yr</u>	<u>Emission Factor</u>
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 (PM10)	0.13	0.6	3.90 lbs/MMscf
Sulfur Dioxide	0.38	1.7	7.80 gr/100scf

Modify Specific Condition 5 which currently reads

"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.

so that it reads

"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.

FGT requests that the permits for Stations 17 (AC42-189455) and 20 (AC56-189457) be modified as follows:

Modify Specific Condition 1 which currently reads

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

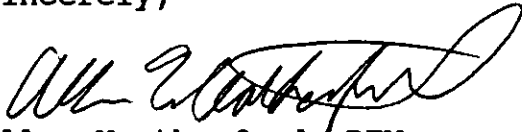
<u>Pollutant</u>	<u>lbs/hr</u>	<u>tons/yr</u>	<u>Emission Factor</u>
Nitrogen Oxide	10.6	46.3	2.0 g/bhp.hr
Carbon Monoxide	14.8	64.9	2.8 g/bhp.hr
Volatile Organic Compounds (non-methane)	9.0	39.4	1.7 g/bhp.hr
Particulate Matter (TSP)	0.09	0.4	5 lbs/MMscf
Particulate Matter (PM10)	0.09	0.4	5 lbs/MMscf
Sulfur Dioxide	0.49	2.2	10 gr/100scf

so that it reads

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

<u>Pollutant</u>	<u>lbs/hr</u>	<u>tons/yr</u>	<u>Emission Factor</u>
Nitrogen Oxides	10.6	48.3	2.0 g/bhp.hr
Carbon Monoxide	14.8	64.9	2.8 g/bhp.hr
Volatile Organic Compounds	9.0	39.4	1.7 g/bhp.hr

Sincerely,



Allan Weatherford, REM
Compliance Environmentalist

bc
aw062993

cc: Raymond Young
Duane Pierce
Barry Andrews
Ed Middleswart
Robert Leetch
Chuck Collins
Isadore Goldman
Q. Harper, EPA
Q. Bunyak, NPS

STATION 12

MILTON, FLORIDA

Station	Model Run Factor	MAXIMUM 1-HR CONCENTRATION (ug/m**3)					Maximum Emission (lb/hr)				
		NOx	CO	VOCs	Particulates	SO2	NOx	CO	VOCs	Particulates	SO2
12 Permitted	3.035	53.416	66.770	26.708	0.425	2.428	17.60	22.00	8.80	0.14	0.80
12 Revised	1.785	32.273	40.341	16.136	0.268	1.446	18.08	22.60	9.04	0.15	0.81

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).

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

Station 12--Actual--Simple Terrain, no Downwash

SIMPLE TERRAIN INPUTS:

SOURCE TYPE = POINT
EMISSION RATE (G/S) = .1260
STACK HEIGHT (M) = 18.29
STK INSIDE DIAM (M) = .91
STK EXIT VELOCITY (M/S) = 12.77
STK GAS EXIT TEMP (K) = 530.37
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.	.1890E-01	2	5.0	5.2	1600.0	44.3	19.7	11.4	NO
200.	1.171	3	10.0	10.6	3200.0	30.5	23.9	14.4	NO

MAXIMUM 1-HR CONCENTRATION AT OR BEYOND 1. M:
313. 1.785 3 10.0 10.6 3200.0 30.5 35.9 21.5 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	1.785	313.	0.

** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **

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

Station 12--Permit--Simple Terrain, no Downwash

SIMPLE TERRAIN INPUTS:

SOURCE TYPE = POINT
EMISSION RATE (G/S) = .1260
STACK HEIGHT (M) = 10.67
STK INSIDE DIAM (M) = .64
STK EXIT VELOCITY (M/S) = 25.95
STK GAS EXIT TEMP (K) = 530.37
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.	.3231	3	10.0	10.1	3200.0	24.1	12.7	7.8	NO
200.	2.865	3	10.0	10.1	3200.0	24.1	23.9	14.5	NO
300.	2.893	3	8.0	8.1	2560.0	27.5	34.6	20.9	NO

MAXIMUM 1-HR CONCENTRATION AT OR BEYOND 1. M:
238. 3.035 3 10.0 10.1 3200.0 24.1 28.1 17.0 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	3.035	238.	0.

** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **

Air Emissions Estimates for Permitting

Station 12; Milton, FL

	NOX (TPY)	CO (TPY)	NMHC (TPY)	SO2 (TPY)	PM (TPY)
Engines					
Compressor Engine 1	212.5	27.0	8.5	1.8	0.3
Compressor Engine 2	212.5	27.0	8.5	1.8	0.3
Compressor Engine 3	212.5	27.0	8.5	1.8	0.3
Compressor Engine 4	212.5	27.0	8.5	1.8	0.3
Compressor Engine 5	212.5	27.0	8.5	1.8	0.3
Compressor Engine 6	77.3	38.6	96.6	3.5	0.7
Emergency Generator Engine 1	1.9	0.2	0.1	0.0	0.0
Emergency Generator Engine 2	2.1	0.2	0.1	0.1	0.0
Air Compressor Engine 1	0.5	0.0	0.0	0.0	0.0
Tanks					
Oil and Water Separator 1	0.0	0.0	0.9	0.0	0.0
Oil and Water Separator 2	0.0	0.0	0.9	0.0	0.0
Pipeline Condensate Tank 1	0.0	0.0	0.5	0.0	0.0
Waste Oil Storage Tank 1	0.0	0.0	0.0	0.0	0.0
Gasoline Storage Tank 1	0.0	0.0	0.0	0.0	0.0
Diesel Storage Tank 1	0.0	0.0	0.0	0.0	0.0
Lube Oil Storage Tank 1 (de minimus)	0.0	0.0	0.0	0.0	0.0
Lube Oil Storage Tank 2 (de minimus)	0.0	0.0	0.0	0.0	0.0
Lube Oil Rundown Tank 1 (de minimus)	0.0	0.0	0.0	0.0	0.0
Machines					
Parts Cleaning Machine 1	?	?	?	?	?
Parts Cleaning Machine 2	?	?	?	?	?
Paint Cleaning Machine 1	?	?	?	?	?
Blowdowns					
ESD and Maintenance blowdowns	0.0	0.0	1.6	0.0	0.0
Fugitive Emissions					
Valves	?	?	?	?	?
Flanges	?	?	?	?	?
Total Emissions	1144.1	174.2	143.2	12.5	2.2

Engine Emission Calculation Worksheet

Station 12; Milton, FL

Emergency Generator Engine 1

Engine data

Annual use (maximum); hr./yr.	400 hr./yr.
Power; Hp	200 Hp
Power; Btu/hr. (@ 8026 (Btu/hr.)/Hp)	1605200 Btu/hr.
Fuel consumption; scf/hr. (@ 1040 Btu/scf)	1543 scf/hr.

Emissions data

NOx	22.0 g/Hp-hr.
CO	2.0 g/Hp-hr.
NMHC	1.0 g/Hp-hr.
SO2	0.1 grains/scf
PM	5.0 lb/MMscf

Emissions calculations

NOx	1.9 TPY
CO	0.2 TPY
NMHC	0.1 TPY
SO2	0.0 TPY
PM	0.0 TPY

Engine Emission Calculation Worksheet

Station 12; Milton, FL

Emergency Generator Engine 2

Engine data

Annual use (maximum); hr./yr.	400 hr./yr.
Power; Hp	220 Hp
Power; Btu/hr. (@ 8026 (Btu/hr.)/Hp)	1765720 Btu/hr.
Fuel consumption; scf/hr. (@ 1040 Btu/scf)	1698 scf/hr.

Emissions data

NOx	22.0 g/Hp-hr.
CO	2.0 g/Hp-hr.
NMHC	1.0 g/Hp-hr.
SO2	0.1 grains/scf
PM	5.0 lb/MMscf

Emissions calculations

NOx	2.1 TPY
CO	0.2 TPY
NMHC	0.1 TPY
SO2	0.0 TPY
PM	0.0 TPY

Engine Emission Calculation Worksheet

Station 12; Milton, FL

Air Compressor Engine 1

Engine data

Annual use (maximum); hr./yr.	150 hr./yr.
Power; Hp	125 Hp
Power; Btu/hr. (@ 8026 (Btu/hr.)/Hp)	1003250 Btu/hr.
Fuel consumption; scf/hr. (@ 1040 Btu/scf)	965 scf/hr.

Emissions data

NOx	22.0 g/Hp-hr.
CO	2.0 g/Hp-hr.
NMHC	1.0 g/Hp-hr.
SO2	0.1 grains/scf
PM	5.0 lb/MMscf

Emissions calculations

NOx	0.5 TPY
CO	0.0 TPY
NMHC	0.0 TPY
SO2	0.0 TPY
PM	0.0 TPY

FIXED ROOF TANK VOLATILE ORGANIC COMPOUND EMISSIONS

COMPANY: Florida Gas Transmission Co.

DATE: 5/8/93

LOCATION: Station 12; Milton, FL

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

TANK PHYSICAL DATA

TANK IDENTIFICATION NUMBER	Oil and Water Separator 1
EMISSION CONTROLS	None
PERCENT EFFICIENCY	0
TANK PAINT COLOR	Black
TANK DIAMETER (FT), D	10.0
TANK HEIGHT (FT), H	15.0
PAINT FACTOR, Fp	1.58
TANK CAPACITY (BBLS), VB	210
TANK CAPACITY (GALLONS), V	8812
ADJUSTMENT FACTOR FOR DIA., C	0.5

WEATHER DATA

AVG. DAILY TEMP. CHANGE (DEG F), DeltaT	20.0
STORAGE TEMP. (DEG. F)	72.4
AVG. ATM. PRESS. (PSIA), Pa	14.7

PRODUCT PHYSICAL DATA

MATERIAL STORED	Condensate, oil, water
MOLECULAR WEIGHT (##/MOLE) Mv	53.0
VAPOR PRESS. AT STG. TEMP. (DEG. F), P	2.8
PRODUCT FACTOR, KsubC (CRUDE 0.65, OTHER 1.0)	1.0

THROUGHPUT DATA

DAYS IN SERVICE, Ds	365
VAPOR SPACE HEIGHT (FT), VH	7.5
TANK THROUGHPUT (BBLS FOR DAYS IN SERVICE), TT	150
FILLING RATE (BBLS/HR), FR	85
NUMBER OF TURNOVERS FOR DAYS IN SERVICE, N	0.7
TURNOVER FACTOR, Kn	1

FIXED ROOF TANK BREATHING LOSS, # Lb =
 $0.0226 * Mv * ((P / (Pa - P))^{0.68}) * (D^{1.73}) * (VH^{0.51}) * (DeltaT^{0.5}) * Fp * C * Kc * Ds / 365 * (100 - \%eff) / 100$

FIXED ROOF TANK WORKING LOSS, # Lw =
 $0.000024 * Mv * P * V * N * Kn * Kc * (100 - \%eff) / 100$

VOLATILE ORGANIC COMPOUND LOSSES	BREATHING	WORKING	TOTAL
POUNDS FOR DAYS SERVICE =	237.4	22.4	259.9
TONS FOR DAYS SERVICE =	0.1	0.0	0.1
POUNDS PER YEAR =	237.4	22.4	259.9
TONS PER YEAR =	0.1	0.0	0.1
AVERAGE POUNDS PER HOUR =	0.0	0.0	0.0
MAXIMUM POUNDS PER HOUR =	0.1	12.7	12.8

FIXED ROOF TANK VOLATILE ORGANIC COMPOUND EMISSIONS

COMPANY: Florida Gas Transmission Co.

DATE: 5/8/93

LOCATION: Station 12; Milton, FL

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

TANK PHYSICAL DATA

TANK IDENTIFICATION NUMBER	Oil and Water Separator 2
EMISSION CONTROLS	None
PERCENT EFFICIENCY	0
TANK PAINT COLOR	Black
TANK DIAMETER (FT), D	10.0
TANK HEIGHT (FT), H	15.0
PAINT FACTOR, Fp	1.58
TANK CAPACITY (BBLs), VB	210
TANK CAPACITY (GALLONS), V	8812
ADJUSTMENT FACTOR FOR DIA., C	0.5

WEATHER DATA

AVG. DAILY TEMP. CHANGE (DEG F), DeltaT	20.0
STORAGE TEMP. (DEG. F)	72.4
AVG. ATM. PRESS. (PSIA), Pa	14.7

PRODUCT PHYSICAL DATA

MATERIAL STORED	Condensate, oil, water
MOLECULAR WEIGHT (##/MOLE) Mv	53.0
VAPOR PRESS. AT STG. TEMP. (DEG. F), P	2.8
PRODUCT FACTOR, KsubC (CRUDE 0.65, OTHER 1.0)	1.0

THROUGHPUT DATA

DAYS IN SERVICE, Ds	365
VAPOR SPACE HEIGHT (FT), VH	7.5
TANK THROUGHPUT (BBLs FOR DAYS IN SERVICE), TT	3000
FILLING RATE (BBLs/HR), FR	85
NUMBER OF TURNOVERS FOR DAYS IN SERVICE, N	14.3
TURNOVER FACTOR, Kn	1

FIXED ROOF TANK BREATHING LOSS, # Lb =
 $0.0226 * Mv * ((P / (Pa - P))^{0.68} * (D^{1.73}) * (VH^{0.51}) * (\Delta T^{0.5}) * Fp * C * Kc * Ds / 365 * (100 - \%eff) / 100$

FIXED ROOF TANK WORKING LOSS, # Lw =
 $0.000024 * Mv * P * V * N * Kn * Kc * (100 - \%eff) / 100$

VOLATILE ORGANIC COMPOUND LOSSES	BREATHING	WORKING	TOTAL
POUNDS FOR DAYS SERVICE =	237.4	448.8	686.2
TONS FOR DAYS SERVICE =	0.1	0.2	0.3
POUNDS PER YEAR =	237.4	448.8	686.2
TONS PER YEAR =	0.1	0.2	<u>0.3</u>
AVERAGE POUNDS PER HOUR =	0.0	0.1	0.1
MAXIMUM POUNDS PER HOUR =	0.1	12.7	12.8

FIXED ROOF TANK VOLATILE ORGANIC COMPOUND EMISSIONS

COMPANY: Florida Gas Transmission Co.

DATE: 5/8/93

LOCATION: Station 12; Milton, FL

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

TANK PHYSICAL DATA

TANK IDENTIFICATION NUMBER	Condensate 1
EMISSION CONTROLS	None
PERCENT EFFICIENCY	0
TANK PAINT COLOR	Black
TANK DIAMETER (FT), D	10.0
TANK HEIGHT (FT), H	15.0
PAINT FACTOR, Fp	1.58
TANK CAPACITY (BBLs), VB	210
TANK CAPACITY (GALLONS), V	8812
ADJUSTMENT FACTOR FOR DIA., C	0.5

WEATHER DATA

AVG. DAILY TEMP. CHANGE (DEG F), DeltaT	20.0
STORAGE TEMP. (DEG. F)	72.4
AVG. ATM. PRESS. (PSIA), Pa	14.7

PRODUCT PHYSICAL DATA

MATERIAL STORED	Condensate
MOLECULAR WEIGHT (##/MOLE) Mv	53.0
VAPOR PRESS. AT STG. TEMP. (DEG. F), P	2.8
PRODUCT FACTOR, KsubC (CRUDE 0.65, OTHER 1.0)	1.0

THROUGHPUT DATA

DAYS IN SERVICE, Ds	365
VAPOR SPACE HEIGHT (FT), VH	7.5
TANK THROUGHPUT (BBLs FOR DAYS IN SERVICE), TT	50
FILLING RATE (BBLs/HR), FR	85
NUMBER OF TURNOVERS FOR DAYS IN SERVICE, N	0.2
TURNOVER FACTOR, Kn	1

FIXED ROOF TANK BREATHING LOSS, # Lb =
 $0.0226 \cdot Mv \cdot ((P/(Pa-P))^{0.68}) \cdot (D^{1.73}) \cdot (VH^{0.51}) \cdot$
 $(\Delta T^{0.5}) \cdot Fp \cdot C \cdot Kc \cdot Ds / 365 \cdot (100 - \%eff) / 100$

FIXED ROOF TANK WORKING LOSS, # Lw =
 $0.000024 \cdot Mv \cdot P \cdot V \cdot N \cdot Kn \cdot Kc \cdot (100 - \%eff) / 100$

VOLATILE ORGANIC COMPOUND LOSSES	BREATHING	WORKING	TOTAL
POUNDS FOR DAYS SERVICE =	237.4	7.5	244.9
TONS FOR DAYS SERVICE =	0.1	0.0	0.1
POUNDS PER YEAR =	237.4	7.5	244.9
TONS PER YEAR =	0.1	0.0	<u>0.1</u>
AVERAGE POUNDS PER HOUR =	0.0	0.0	0.0
MAXIMUM POUNDS PER HOUR =	0.1	12.7	12.8

FIXED ROOF TANK VOLATILE ORGANIC COMPOUND EMISSIONS

COMPANY: Florida Gas Transmission Co.

DATE: 5/8/93

LOCATION: Station 12; Milton, FL

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

TANK PHYSICAL DATA

TANK IDENTIFICATION NUMBER	Waste Oil 1
EMISSION CONTROLS	None
PERCENT EFFICIENCY	0
TANK PAINT COLOR	Black
TANK DIAMETER (FT), D	8.0
TANK HEIGHT (FT), H	10.0
PAINT FACTOR, Fp	1.58
TANK CAPACITY (BBLS), VB	90
TANK CAPACITY (GALLONS), V	3760
ADJUSTMENT FACTOR FOR DIA., C	0.4

WEATHER DATA

AVG. DAILY TEMP. CHANGE (DEG F), DeltaT	20.0
STORAGE TEMP. (DEG. F)	72.4
AVG. ATM. PRESS. (PSIA), Pa	14.7

PRODUCT PHYSICAL DATA

MATERIAL STORED	Waste oil
MOLECULAR WEIGHT (##/MOLE) Mv	190.0
VAPOR PRESS. AT STG. TEMP. (DEG. F), P	0.0019
PRODUCT FACTOR, KsubC (CRUDE 0.65, OTHER 1.0)	1.0

THROUGHPUT DATA

DAYS IN SERVICE, Ds	365
VAPOR SPACE HEIGHT (FT), VH	7.5
TANK THROUGHPUT (BBLS FOR DAYS IN SERVICE), TT	300
FILLING RATE (BBLS/HR), FR	85
NUMBER OF TURNOVERS FOR DAYS IN SERVICE, N	3.4
TURNOVER FACTOR, Kn	1

FIXED ROOF TANK BREATHING LOSS, # Lb =
 $0.0226 * Mv * ((P / (Pa - P))^{0.68}) * (D^{1.73}) * (VH^{0.51}) * (DeltaT^{0.5}) * Fp * C * Kc * Ds / 365 * (100 - \%eff) / 100$

FIXED ROOF TANK WORKING LOSS, # Lw =
 $0.000024 * Mv * P * V * N * Kn * Kc * (100 - \%eff) / 100$

VOLATILE ORGANIC COMPOUND LOSSES	BREATHING	WORKING	TOTAL
POUNDS FOR DAYS SERVICE =	2.8	0.1	2.9
TONS FOR DAYS SERVICE =	0.0	0.0	0.0
POUNDS PER YEAR =	2.8	0.1	2.9
TONS PER YEAR =	0.0	0.0	0.0
AVERAGE POUNDS PER HOUR =	0.0	0.0	0.0
MAXIMUM POUNDS PER HOUR =	0.0	0.0	0.0

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 12
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
COOP. LS-8-SG	Engine 1	X	Yes	None
COOP. LS-8-SG	Engine 2	X	Yes	None
COOP. LS-8-SG	Engine 3	X	Yes	None
COOP. LS-8-SG	Engine 4	X	Yes	None
COOP. LS-8-SG	Engine 5	X	Yes	None
DR 10 TCV	Engine 6	X	Yes	None
Emergency Generator # 1	Omitted	X	No	Horsepower, Serial number, Stack temp, BTU/HP*HR, Emission rates for NOx, CO, NM-NE HC, SO2, and PM
Emergency Generator # 2	Omitted	X	No	Serial Number, Stack temp, BTU/HP*HR, Emission rates for NOx, CO, NM-NE HC, SO2, and PM
Air Compressor # 1	Omitted	X	No	Model, Stack Parameters, 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, Fill rate
Oil and Water Sep. # 2	Omitted	X	No	Emission rate for NM-NE HC, Throughput, Fill rate
Waste Oil Stor. # 1	Omitted	X	No	Emission rate for NM-NE HC, Throughput, Fill rate
Pipeline Condensate # 1	Omitted	X	No	Emission rate for NM-NE HC, Throughput, Fill rate
Lube Oil Storage # 1	Omitted	X	No	Orientation, Throughput, Emission rate for NM-NE HC, Tank dimensions, Vent data, Fill rate
Lube Oil Storage # 2	Omitted	X	No	Orientation, Throughput, Emission rate for NM-NE HC, Tank dimensions, Vent data, Fill rate
Lube Oil Rundown # 1	Omitted	X	No	Orientation, Throughput, Emission rate for NM-NE HC, Tank dimensions, Vent data, Fill rate
Gasoline Tank # 1	Omitted	X	No	Tank Dimensions, Fill rate, Emission rate for VOC's
Diesel Tank # 1	Omitted	X	No	Tank Dimensions, Fill rate, Emission rate for VOC's
Part Cleaner # 1	Omitted	X	No	Emission rate for VOC's
Part Cleaner # 2	Omitted	X	No	Emission rate for VOC's
Paint Cleaner # 1	Omitted	X	No	Emission rate for VOC's
ESD & Blowdown Stacks	Omitted	X	No	Emission rates, Volume B/D, Stack info

ESP stack:
11 ft, 10" dia
Comp. stack:
8 ft, 12" dia

FL
 NATURAL GAS COMPRESSION FACILITY
 STATION 12
 MILTON, 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)				PM
						NOX	NMHC	CO	SO2	
ENGINE # 1	PERMITTED UNIT	_____	5829	2000	6200	212.5	8.5	27	1.79	0.31
ENGINE # 2	PERMITTED UNIT	_____	5830	2000	6200	212.5	8.5	27	1.79	0.31
ENGINE # 3	PERMITTED UNIT	_____	5831	2000	6200	212.5	8.5	27	1.79	0.31
ENGINE # 4	PERMITTED UNIT	_____	7018	2000	6200	212.5	8.5	27	1.79	0.31
ENGINE # 5	PERMITTED UNIT	_____	7052	2000	6200	212.5	8.5	27	1.79	0.31
ENGINE # 6	PERMITTED UNIT	_____	10TCV112AP	4000	7300	77.3	33.6	96.6	3.5	0.68
						1140	81	232	12	2

Phase I Station Characteristics

02-Jun-92
CS12.WK1

Compressor Station: Number 12
 Name: Milton
 County: Santa Rosa
 Nearest City: Munson
 Compressor Supervisor: Duwood Mulford
 Mailing Address: Route 1, Box 146
 Milton, Florida 32570-9740
 Telephone: 904-957-4221
 Latitude: 30-54-42
 Longitude: 86-53-12
 UTM Zone: 16
 UTM Easting: 510.83 km
 UTM Northing: 3,419.63 km
 Elevation (ft): 180

Phase I Engine Characteristics

Engine Identification	1	2	3	4	5
Permit Number	A057-19/323	← same	← same	← same	← same
Serial Number	5829	5830	5831	7018	7052
Operating Time					
Hours/Day	24	24	24	24	24
Days/Week	7	7	7	7	7
Weeks/Year	52	52	52	52	52
Engine Type	Recip	Recip	Recip	Recip	Recip
Date of Installation	1958	1958	1958	1966	1968
Engine Make	Cooper	Cooper	Cooper	Cooper	Cooper
Engine Model	LS-8-SG	LS-8-SG	LS-8-SG	LS-8-SG	LS-8-SG
Horsepower Rating	2000	2000	2000	2000	2000
Air Charging	Turbo.	Turbo.	Turbo.	Turbo.	Turbo.
Exhaust Temperature (F)	875	875	875	875	875
Mass Flow Rate (lbs/hr) (a)	21000	21000	21000	21000	21000
Volumetric Flow Rate (acfm)	11760	11760	11760	11760	11760
Volumetric Flow Rate (dscfm)	4279	4279	4279	4279	4279
Exit Velocity (af/s)	154.5	154.5	154.5	154.5	154.5
Water Vapor Content (%)	8	8	8	8	8
Ave. Fuel Consumption (MMCF/Hr) (b)	0.0143	0.0143	0.0143	0.0143	0.0143
Max. Fuel Consumption (MMCF/Hr) (b)	0.0143	0.0143	0.0143	0.0143	0.0143
Specific Fuel Consump. (BTU/bhp-hr)	6200	6200	6200	6200	6200
Maximum Heat Input (MMBTU/Hr)	15	15	15	15	15
Stack Height (ft)	26.42	26.42	26.42	26.42	26.42
Stack Diameter (in)	15.25	15.25	15.25	15.25	15.25
Stack to Building Offset (ft)	17.00	17.00	17.00	17.00	17.00
Building Height (ft) (c)	OK → 32.42	← (same)	←	←	←
Building Length (ft) (c)	225.00 - 180.00	←	←	←	←
Building Width (ft) (c)	53.00 - 55.00	←	←	←	←

Phase I Fuel Characteristics

Fuel Type	N.G.	N.G.	N.G.	N.G.	N.G.
Heating Value (BTU/CF)	1050	1050	1050	1050	1050
Heat Capacity (BTU/lb)	23077	23077	23077	23077	23077
Density (lb/cubic ft)	0.0455	0.0455	0.0455	0.0455	0.0455
Percent Sulfur (%) (d)	0.031	0.031	0.031	0.031	0.031
Percent Ash (%)	N/A	N/A	N/A	N/A	N/A

02-Jun-92
CS12.WK1

Phase I Emissions Rates by Engine for Station 12

Engine Identification	1	2	3	4	5
Grams/BHP-Hour					
NOX	11.000	11.000	11.000	11.000	11.000
CO	1.400	1.400	1.400	1.400	1.400
NMHC	0.440	0.440	0.440	0.440	0.440
SO2 (e)	0.093	0.093	0.093	0.093	0.093
PM (f)	0.016	0.016	0.016	0.016	0.016
Pounds/Hour					
NOX	48.51	48.51	48.51	48.51	48.51
CO	6.17	6.17	6.17	6.17	6.17
NMHC	1.94	1.94	1.94	1.94	1.94
SO2	0.41	0.41	0.41	0.41	0.41
PM	0.07	0.07	0.07	0.07	0.07
Tons/Year					
NOX	212.47	212.47	212.47	212.47	212.47
CO	27.04	27.04	27.04	27.04	27.04
NMHC	8.50	8.50	8.50	8.50	8.50
SO2	1.79	1.79	1.79	1.79	1.79
PM	0.31	0.31	0.31	0.31	0.31

Phase I Emissions Rates for Total Station

Grams/BHP-Hour	
NOX	11.000
CO	1.400
NMHC	0.440
SO2	0.093
PM	0.016
Pounds/Hour	
NOX	242.55
CO	30.87
NMHC	9.70
SO2	2.04
PM	0.36
Tons/Year	
NOX	1062.37
CO	135.21
NMHC	42.49
SO2	8.94
PM	1.57

SOURCE CLACIFICATION WITH RESPECT TO PSD

MAJOR 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

02-Jun-92
CS12.WK1

Compressor Station: Number 12
 Name: Milton
 County: Santa Rosa
 Nearest City: Munson
 Compressor Supervisor: Duwood Mulford
 Mailing Address: Route 1, Box 146
 Milton, Florida 32570-9740
 Telephone: 904-957-4221
 Latitude: 30-54-42
 Longitude: 86-53-12
 UTM Zone: 16
 UTM Easting: 510.83 km
 UTM Northing: 3,419.63 km
 Elevation (ft): 180

Phase II Engine Characteristics

Engine Identification	6
Permit Number	AC57-188069
Serial Number	10TCV112AP
Operating Time	
Hours/Day	24
Days/Week	7
Weeks/Year	52
Engine Type	Recip
Date of Installation	1991
Engine Make	Dresser-Rand
Engine Model	10 TCV
Horsepower Rating	4000 4100
Air Charging	Turbo.
Exhaust Temperature (F)	495
Mass Flow Rate (lbs/hr) (a)	87514
Volumetric Flow Rate (acfm)	35820
Volumetric Flow Rate (dscfm)	17763
Exit Velocity (af/s)	84.46
Water Vapor Content (%)	8
Ave. Fuel Consumption (MMCF/Hr) (b)	0.0278
Max. Fuel Consumption (MMCF/Hr) (b)	0.0278
Specific Fuel Consump. (BTU/bhp-hr)	7300
Maximum Heat Input (MMBTU/Hr)	29.2
Stack Height (ft)	60
Stack Diameter (in)	36
Stack to Building Offset (ft)	17.00
Building Height (ft) (c)	ok 32.42
Building Length (ft) (c)	225.00 220.00
Building Width (ft) (c)	53.00 55.00

Phase II Fuel Characteristics

Fuel Type	N.G.
Heating Value (BTU/CF)	1050
Heat Capacity (BTU/lb)	23077
Density (lb/cubic ft)	0.0455
Percent Sulfur (%) (d)	0.031
Percent Ash (%)	N/A

Phase II Emissions Rates by Engine for Station 12
Engine Identification 6

Grams/BHP-Hour		
	NOX	2.000
	CO	2.500
	NMHC	1.000
	SO2 (e)	0.090
	PM (f)	0.018
Pounds/Hour		
	NOX	17.64
	CO	22.05
	NMHC	8.82
	SO2	0.79
	PM	0.15
Tons/Year		
	NOX	77.26
	CO	96.58
	NMHC	38.63
	SO2	3.48
	PM	0.68

Phase II Emissions Rates for Total Station

Grams/BHP-Hour		
	NOX	8.428
	CO	1.714
	NMHC	0.600
	SO2	0.092
	PM	0.017
Pounds/Hour		
	NOX	260.19
	CO	52.92
	NMHC	18.52
	SO2	2.84
	PM	0.51
Tons/Year		
	NOX	1139.63
	CO	231.79
	NMHC	81.13
	SO2	12.42
	PM	2.24

SOURCE CLACIFICATION WITH RESPECT TO PSD

MAJOR 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.

C
 NATURAL GAS COMPRESSION FACILITY
 STATION 12
 MILTON, FLORIDA

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

PURPOSE OF AIR COMPRESSOR: TO PROVIDE AIR FOR TIRES, ETC...

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									
EMERGENCY GENERATOR # 2	NOT PERMITTED			220						
AIR COMPRESSOR # 1	NOT PERMITTED			125						
						0	0	0	0	0

FLORIDA GAS TRANSMISSION COMPANY
COMPRESSOR STATION EMISSIONS QUESTIONNAIRE
STATION No. 12

GENERATORS SETS

UNIT NUMBER 1 1085559	
Installed	EXISTING
Permitted	YES
Internal Combustion Engine	YES
If Int. Comb. Engine, Is Catalytic Converter present	NO
Manufacturer	Waukesha
Model	6-WAK
Actual Maximum Hours of Operation (Hr / Year)	35
If Internal Combustion Engine Complete the following information:	
Type of Fuel Used	N.G.
BTU Rating (MMBTU/HR)	
Horse Power Rating	200 125 KVA
Stack Height Above Grade (ft)	9.5
Stack Diameter (inch)	6 4 horiz
Location of Stack(s)	Southeast side of Aux. Bldg.
Stack Temperature (F)	500 °F

UNIT NUMBER 2 25176940	
Installed	PHASE II
Permitted	YES
Internal Combustion Engine	YES
If Int. Comb. Engine, Is Catalytic Converter present	NO
Manufacturer	Cummins
Model	G855
Actual Maximum Hours of Operation (Hr / Year)	0
If Internal Combustion Engine Complete the following information:	
Type of Fuel Used	N.G.
BTU Rating (MMBTU/HR)	
Horse Power Rating	220 (125 KVA)
Stack Height Above Grade (ft)	8'-7"
Stack Diameter (inch)	6 horiz
Location of Stack(s)	East side of Aux. Bldg.
Stack Temperature (F)	270 °F

FLORIDA GAS TRANSMISSION COMPANY
COMPRESSOR STATION EMISSIONS QUESTIONNAIRE
STATION No. 12

OTHER SOURCES

~~55204~~ 55201

Unit No. 1	EXISTING
Permitted	
Purpose of Unit	Auxiliary Air Compressor
Type	CU-211 Nat gas 6 cyl
Manufacturer	International
Model	CU-211
Size (BTU ,or HP ,or Kw)	125 HP
Fuel Used (if applicable)	N.G.
Stack Parameters (ft)	2", 15', vert.

150 hrs / yr

C
 NATURAL GAS COMPRESSION FACILITY
 STATION 12
 MILTON, FLORIDA

PURPOSE OF OIL/WATER SEPARATOR TANKS: TO SEPARATE AN OIL AND WATER MIXTURE IN ORDER TO REUSE THE WATER.

PURPOSE OF WASTE OIL TANK: TO STORE EXCESS OIL COLLECTED IN COMPRESSOR STATION PROCESSES.

PURPOSE OF PIPELINE CONDENSATE TANK: TO STORE LIGHT HYDROCARBON LIQUID OBTAINED BY CONDENSATION OF HYDROCARBON VAPORS.

PURPOSE OF LUBE OIL STORAGE TANKS: TO STORE LUBE OIL USED FOR ENGINE OPERATIONS.

PURPOSE OF THE LUBE OIL RUNDOWN TANK: TO CAPTURE EXCESS LUBE OIL FROM ENGINE OPERATIONS.

PURPOSE OF GAS & DIESEL TANKS: TO STORE FUEL FOR EQUIPMENT USAGE.

VESSEL	PERMIT STATUS	SOURCE ID	CAPACITY (GAL)	PERMIT FUGITIVE EMISSION RATES (TPY) NMHC
OIL/WATER SEPARATOR # 1	NOT PERMITTED	_____	8820	_____
OIL/WATER SEPARATOR # 2	NOT PERMITTED	_____	8820	_____
WASTE OIL TANK # 1	NOT PERMITTED	_____	8820	_____
PIPELINE CONDENSATE # 1	NOT PERMITTED	_____	8820	_____
LUBE OIL STORAGE # 1	NOT PERMITTED	_____	10000	_____
LUBE OIL STORAGE # 2	NOT PERMITTED	_____	3000	_____
LUBE OIL RUNDOWN TANK # 1	NOT PERMITTED	_____	700	_____
GASOLINE TANK # 1	NOT PERMITTED	_____	350	_____
DIESEL TANK # 1	NOT PERMITTED	_____	350	_____

Complete
7/16/93 Corrected Copy

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

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 the Phase II engine additions addressed in this letter. In preparing the applications, I noted that for some compressor stations, engines which were slightly larger than that proposed in the construction permit applications have been installed.

To resolve this situation, FGT requests that those permits for stations in which larger engines (increased horsepower) than permitted be amended to include the correct horsepower, fuel consumption and heat input. In addition, FGT requests that the remaining permits (those for which there have been no changes in horsepower) be amended to include fuel consumption levels and heat inputs which are more realistic based on our compliance testing. In most cases it was observed that the fuel consumption levels provided by the manufacturer were exceeded during compliance testing.

Because the construction permits for the referenced compressor engines are soon to expire (June 30, 1993), FGT is requesting that the construction permits be extended until September 30, 1993 to provide ample time to process the requested changes to the construction permits and obtain the operating permits.

FGT has enclosed a check for \$2,250.00 to cover the cost of these permitting actions. Please note that FGT is not requesting that any emissions limitations be increased for any of the compressor stations. Even though the horsepower was increased from what was originally permitted at some stations, the actual emissions determined from the compliance testing were well below permitted levels.

Specifically, horsepower increases have occurred at Stations 12 (4100 HP instead of 4000 HP), 13, 14, and 18 (2700 HP instead of 2400 HP), and 19 (2600 HP instead of 2500 HP). In most cases the higher potential emission rates do not result in higher ambient concentrations since the compressor engines were equipped with higher stack heights than that proposed in the construction permit applications. For cases in which the increased potential emission rates due to changes in horsepower resulted in higher ambient concentrations, the concentrations still remained well below any ambient air quality standards. A summary of the screening modeling conducted for each station has been provided for your review. Again this modeling was based on the increased potential to emit. FGT is not requesting that permitted emissions limitations be increased.

FGT requests that the permit for Station 12 (AC57-188869) be amended to indicate the correct horsepower (4100 HP) and that the permit for this station be modified as follows:

Specific Condition 1 which currently reads

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

<u>Pollutant</u>	<u>lbs/hr</u>	<u>tons/yr</u>	<u>Emission Factor</u>
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 (PM10)	0.14	0.61	5 lbs/MMscf
Sulfur Dioxide	0.8	3.5	10 gr/100scf

so that it reads

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

<u>Pollutant</u>	<u>lbs/hr</u>	<u>tons/yr</u>	<u>Emission Factor</u>
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 (PM10)	0.14	0.61	4.03 lbs/MMscf
Sulfur Dioxide	0.4	1.8	8.06 gr/100scf

Modify Specific Condition 5 which currently reads

"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.

so that it reads

"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.

FGT requests that the permits for Stations 13 (AC67-189220) and 14 (AC20-189438) be amended to indicate the correct horsepower (2700 HP) and that the permits for these stations be modified as follows:

Modify Specific Condition 1 which currently reads

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

<u>Pollutant</u>	<u>lbs/hr</u>	<u>tons/yr</u>	<u>Emission Factor</u>
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 (PM10)	0.08	0.4	5 lbs/MMscf
Sulfur Dioxide	0.46	2.0	10 gr/100scf

so that it reads

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

<u>Pollutant</u>	<u>lbs/hr</u>	<u>tons/yr</u>	<u>Emission Factor</u>
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 (PM10)	0.08	0.4	3.87 lbs/MMscf
Sulfur Dioxide	0.23	7.0	7.74 gr/100scf

Modify Specific Condition 5 which currently reads

"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.

so that it reads

"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.

FGT requests that the permit for Station 18 (AC48-189456) be amended to indicate the correct horsepower (2700 HP) and that the permit for this station be modified as follows:

Modify Specific Condition 1 which currently reads

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

<u>Pollutant</u>	<u>lbs/hr</u>	<u>tons/yr</u>	<u>Emission Factor</u>
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)	2.61	11.6	0.5 g/bhp-hr
Particulate Matter (TSP)	0.08	0.4	5 lbs/MMscf
Particulate Matter (PM10)	0.08	0.4	5 lbs/MMscf
Sulfur Dioxide	0.476	2.2	10 gr/100scf

so that it reads

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

<u>Pollutant</u>	<u>lbs/hr</u>	<u>tons/yr</u>	<u>Emission Factor</u>
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 (PM10)	0.08	0.4	3.95 lbs/MMscf
Sulfur Dioxide	0.23	1.0	7.90 gr/100scf

Modify Specific Condition 5 which currently reads

"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.

so that it reads

"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.

FGT requests that the permit for Station 19 (AC05-189665) be amended to indicate the correct horsepower (2600 HP) and that the permit for this station be modified as follows:

Modify Specific Condition 1 which currently reads

"Maximum allowable emissions from each engine shall not exceed the emission rates as follows:"

<u>Pollutant</u>	<u>lbs/hr</u>	<u>tons/yr</u>	<u>Emission Factor</u>
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 (PM10)	0.09	0.4	5 lbs/MMscf
Sulfur Dioxide	0.51	2.2	10 gr/100scf

so that it reads

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

<u>Pollutant</u>	<u>lbs/hr</u>	<u>tons/yr</u>	<u>Emission Factor</u>
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 (PM10)	0.09	0.4	3.90 lbs/MMscf
Sulfur Dioxide	0.25	1.1	7.80 gr/100scf

Modify Specific Condition 5 which currently reads

"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.

so that it reads

"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.

FGT requests that the permit for Station 15 (AC62-189439) be modified as follows:

Modify Specific Condition 1 which currently reads

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

<u>Pollutant</u>	<u>lbs/hr</u>	<u>tons/yr</u>	<u>Emission Factor</u>
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 (PM10)	0.13	0.6	5 lbs/MMscf
Sulfur Dioxide	0.75	3.3	10 gr/100scf

so that it reads

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

<u>Pollutant</u>	<u>lbs/hr</u>	<u>tons/yr</u>	<u>Emission Factor</u>
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 (PM10)	0.13	0.6	4.23 lbs/MMscf
Sulfur Dioxide	0.38	1.7	8.53 gr/100scf

Modify Specific Condition 5 which currently reads

"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.

so that it reads

"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.

FGT requests that the permit for Station 16 (AC04-189454) be modified as follows:

Modify Specific Condition 1 which currently reads

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

<u>Pollutant</u>	<u>lbs/hr</u>	<u>tons/yr</u>	<u>Emission Factor</u>
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 (PM10)	0.13	0.6	5 lbs/MMscf
Sulfur Dioxide	0.75	3.3	10 gr/100scf

so that it reads

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

<u>Pollutant</u>	<u>lbs/hr</u>	<u>tons/yr</u>	<u>Emission Factor</u>
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 (PM10)	0.13	0.6	3.90 lbs/MMscf
Sulfur Dioxide	0.38	1.7	7.80 gr/100scf

Modify Specific Condition 5 which currently reads

"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.

so that it reads

"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.

FGT requests that the permits for Stations 17 (AC42-189455) and 20 (AC56-189457) be modified as follows:

Modify Specific Condition 1 which currently reads

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

<u>Pollutant</u>	<u>lbs/hr</u>	<u>tons/yr</u>	<u>Emission Factor</u>
Nitrogen Oxide	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 (PM10)	0.09	0.4	5 lbs/MMscf
Sulfur Dioxide	0.49	2.2	10 gr/100scf

so that it reads

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

<u>Pollutant</u>	<u>lbs/hr</u>	<u>tons/yr</u>	<u>Emission Factor</u>
Nitrogen Oxides	10.6	48.3	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 (PM10)	0.09	0.4	4.13 lbs/MMscf
Sulfur Dioxide	0.24	1.1	8.27 gr/100scf

Modify Specific Condition 5 which currently reads

"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.

so that it reads

"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.

Please note that horsepower rating and fuel consumption rates are dependent upon several factors such as engine speed, load, and ambient conditions. Variances in these factors result in changes to horsepower and fuel usage and account for any differences in outputs or ratings that are presented in the attachments.

Also enclosed is an emission inventory for ancillary equipment (small storage tanks, emergency generators, etc) which were not addressed in the construction permit applications. Although the emissions from this equipment is negligible compared to the engines, this emission information has been included to fully address all sources at these compressor stations.

If you have any questions or require additional information, please call me at 407-875-5816.

Sincerely,

Allan Weatherford, REM
Compliance Environmentalist

tp and bc
aw062993

cc: Raymond Young
Duane Pierce
Barry Andrews
Ed Middleswart
Robert Leetch
Chuck Collins
Isadore Goldman

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 the Phase II engine additions addressed in this letter. In preparing the applications, I noted that for some compressor stations, engines which were slightly larger than that proposed in the construction permit applications have been installed.

To resolve this situation, FGT requests that those permits for stations in which larger engines (increased horsepower) than permitted be amended to include the correct horsepower, fuel consumption and heat input. In addition, FGT requests that the remaining permits (those for which there have been no changes in horsepower) be amended to include fuel consumption levels and heat inputs which are more realistic based on our compliance testing. In most cases it was observed that the fuel consumption levels provided by the manufacturer were exceeded during compliance testing.

Because the construction permits for the referenced compressor engines are soon to expire (June 30, 1993), FGT is requesting that the construction permits be extended until September 30, 1993 to provide ample time to process the requested changes to the construction permits and obtain the operating permits.

FGT has enclosed a check for \$2,250.00 to cover the cost of these permitting actions. Please note that FGT is not requesting that any emissions limitations be increased for any of the compressor stations. Even though the horsepower was increased from what was originally permitted at some stations, the actual emissions determined from the compliance testing were well below permitted levels.

Specifically, horsepower increases have occurred at Station^S 12 (4100 HP instead of 4000 HP), 13, 14, and 18 (2700 HP instead of 2400 HP), and 19 (2600 HP instead of 2500 HP). In most cases the higher potential emission rates do not result in higher ambient concentrations since the compressor engines were equipped with higher stack heights than that proposed in the construction permit applications. For cases in which the increased potential emission rates due to changes in horsepower resulted in higher ambient concentrations, the concentrations still remained well below any ambient air quality standards. A summary of the screening modeling conducted for each station has been provided for your review. Again this modeling was based on the increased potential to emit. FGT is not requesting that permitted emissions limitations be increased.

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

FGT requests that the permits for Stations 13 (AC67-189220) and 14 (AC20-189438) be amended to indicate the correct horsepower (2700 HP) and that the permits for these stations be modified as follows:

Modify Specific Condition 1 which currently reads

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

<u>Pollutant</u>	<u>lbs/hr</u>	<u>tons/yr</u>	<u>Emission Factor</u>
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 (PM10)	0.08	0.4	5 lbs/MMscf
Sulfur Dioxide	0.46	20 2.0	10 gr/100scf

so that it reads

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

<u>Pollutant</u>	<u>lbs/hr</u>	<u>tons/yr</u>	<u>Emission Factor</u>
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 (PM10)	0.08	0.4	3.87 lbs/MMscf
Sulfur Dioxide	0.23	10 1.0	7.74 gr/100scf

Modify Specific Condition 5 which currently reads

"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.

so that it reads

"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.

FGT requests that the permit for Station 18 (AC48-189456) be amended to indicate the correct horsepower (2700 HP) and that the permit for this station be modified as follows:

Modify Specific Condition 1 which currently reads

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

<u>Pollutant</u>	<u>lbs/hr</u>	<u>tons/yr</u>	<u>Emission Factor</u>
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)	2.61	11.6	0.5 g/bhp-hr
Particulate Matter (TSP)	0.08	0.4	5 lbs/MMscf
Particulate Matter (PM10)	0.476 ^{0.08}	2.2 ^{0.4}	5 lbs/MMscf
Sulfur Dioxide	0.476	2.2	10 gr/100scf

so that it reads

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

<u>Pollutant</u>	<u>lbs/hr</u>	<u>tons/yr</u>	<u>Emission Factor</u>
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 (PM10)	0.08	0.4	3.95 lbs/MMscf
Sulfur Dioxide	0.23	1.0	7.90 gr/100scf

Modify Specific Condition 5 which currently reads

"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

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.

so that it reads

"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.

FGT requests that the permit for Station 15 (AC62-189439) be modified as follows:

Modify Specific Condition 1 which currently reads

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

<u>Pollutant</u>	<u>lbs/hr</u>	<u>tons/yr</u>	<u>Emission Factor</u>
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 (PM10)	0.13	0.6	5 lbs/MMscf
Sulfur Dioxide	0.75	3.3	10 gr/100scf

so that it reads

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

<u>Pollutant</u>	<u>lbs/hr</u>	<u>tons/yr</u>	<u>Emission Factor</u>
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 (PM10)	0.13	0.6	4.23 lbs/MMscf
Sulfur Dioxide	0.38	1.7	8.53 gr/100scf

Modify Specific Condition 5 which currently reads

"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.

so that it reads

"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.

FGT requests that the permit for Station 16 (AC04-189454) be modified as follows:

Modify Specific Condition 1 which currently reads

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

<u>Pollutant</u>	<u>lbs/hr</u>	<u>tons/yr</u>	<u>Emission Factor</u>
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 (PM10)	0.13	0.6	5 lbs/MMscf
Sulfur Dioxide	0.75	3.3	10 gr/100scf

so that it reads

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

<u>Pollutant</u>	<u>lbs/hr</u>	<u>tons/yr</u>	<u>Emission Factor</u>
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 (PM10)	0.13	0.6	3.90 lbs/MMscf
Sulfur Dioxide	0.38	1.7	7.80 gr/100scf

Modify Specific Condition 5 which currently reads

"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.

so that it reads

"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.

FGT requests that the permits for Stations 17 (AC42-189455) and 20 (AC56-189457) be modified as follows:

Modify Specific Condition 1 which currently reads

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

<u>Pollutant</u>	<u>lbs/hr</u>	<u>tons/yr</u>	<u>Emission Factor</u>
Nitrogen Oxide	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 (PM10)	0.09	0.4	5 lbs/MMscf
Sulfur Dioxide	0.49	2.2	10 gr/100scf

so that it reads

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

<u>Pollutant</u>	<u>lbs/hr</u>	<u>tons/yr</u>	<u>Emission Factor</u>
Nitrogen Oxides	10.6	48.3	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 (PM10)	0.09	0.4	4.13 lbs/MMscf
Sulfur Dioxide	0.24	1.1	8.27 gr/100scf

Modify Specific Condition 5 which currently reads

"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.

so that it reads

"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.

Please note that horsepower rating and fuel consumption rates are dependent upon several factors such as engine speed, load, and ambient conditions. Variances in these factors result in changes to horsepower and fuel usage and account for any differences in outputs or ratings that are presented in the attachments.

Also enclosed ^{is} in an emission inventory for ancillary equipment (small storage tanks, emergency generators, etc) which were not addressed in the construction permit applications. Although the emissions from this equipment is negligible compared to the engines, this emission information has been included to fully address all sources at these compressor stations.

If you have any questions or require additional information, please call me at 407-875-5816.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET, N.E.
ATLANTA, GEORGIA 30365

RECEIVED

JAN 22 1991

JAN 15 1991

DER-BAQM

4APT-AEB

Mr. Clair H. Fancy, P.E., Chief
Bureau of Air Regulation
Florida Department of Environmental
Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

RE: Florida Gas Transmission Company Compressor Stations
PSD-FL-156 Santa Rosa County
PSD-FL-158 Washington County
PSD-FL-159 Gadsden County
PSD-FL-160 Taylor County
PSD-FL-161 Bradford County
PSD-FL-162 Marion County
PSD-FL-163 Orange County
PSD-FL-164 St. Lucie County

Dear Mr. Fancy:

This is to acknowledge receipt of the Prevention of Significant Deterioration (PSD) permit application for Compressor Station Nos. 12 through 18 and 20 of the above referenced source, by letter dated November 28, 1990.

The proposed projects are similar in scope in that they each consist of the addition of one reciprocating internal combustion engine to an existing compressor station. The engines proposed for the stations in Santa Rosa, Taylor, and Bradford Counties will be sized at 4000 brake horsepower. The engines for the remaining five counties will be sized at 2400 brake horsepower. We have reviewed the package as requested and have no adverse comments at this time.

Thank you for the opportunity to review and comment on this application. If you have any questions or comments on this package, please contact Mr. Gregg Worley of my staff at (404) 347-2904.

Sincerely yours,

Douglas Neely for

Jewell A. Harper, Chief
Air Enforcement Branch
Air, Pesticides, and Toxics
Management Division

*cc: J. Nelson
C. Holladay
E. Andrews
E. Middlewart*

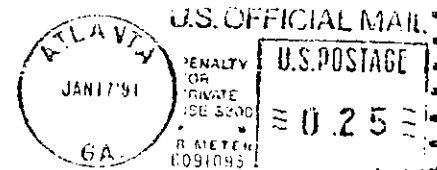
*A. ...
C. Collins
J. ...
C. ...*

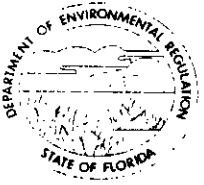
UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION IV
345 COURTLAND STREET
ATLANTA, GEORGIA 30365

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE, \$300

AIR-4

Clair H. Farcy, P.E., Chief
Bureau of Air Regulation
Fl. Dept. of Environmental Regulation
266 Blair Stone Rd./Twin Towers Building
Tallahassee, FL 32399-2400





State of Florida
DEPARTMENT OF ENVIRONMENTAL REGULATION

For Routing To Other Than The Addressee	
To _____	Location _____
To _____	Location _____
To _____	Location _____
From _____	Date _____

Interoffice Memorandum

TO: Howard Rhodes
FROM: Clair Fancy *CAF*
DATE: February 12, 1993
SUBJ: Amendment of Permits
Florida Gas Transmission Company

Attached for your approval and signature is a letter amending Specific Condition No. 10 of numerous permits for the above mentioned company. This amendment was requested in order to demonstrate compliance with the VOC emission standards using EPA Method 25A instead of EPA Method 25.

The Bureau recommends approval of the above.

CF/TH/plm

Attachment



State of Florida
DEPARTMENT OF ENVIRONMENTAL REGULATION

For Routing To Other Than The Addressee	
To _____	Location _____
To _____	Location _____
To _____	Location _____
From _____	Date _____

Interoffice Memorandum

TO: Howard Rhodes
FROM: Clair Fancy *CAF*
DATE: February 12, 1993
SUBJ: Amendment of Permits
Florida Gas Transmission Company

Attached for your approval and signature is a letter amending Specific Condition No. 10 of numerous permits for the above mentioned company. This amendment was requested in order to demonstrate compliance with the VOC emission standards using EPA Method 25A instead of EPA Method 25.

The Bureau recommends approval of the above.

CF/TH/plm

Attachment

Mr. Alan Weatherford
Florida Gas Transmission Company
Page 2

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.

Mr. Alan Weatherford
Florida Gas Transmission Company
Page 3

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
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

RECEIVED

DEC 17 1992

An **ENRON/SONAT** Affiliate

Division of Air
Resources Management

Mr. Clair Fancy
Page 2 of 2
December 7, 1992

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
Compliance Environmentalist

bc
awl207cf

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

J. Nelson
C. Middlesworth



Florida Gas Transmission Company

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

June 29, 1993

VIA FEDERAL EXPRESS
(overnight delivery)

RECEIVED
JUN 30 1993
DIVISION OF AIR
RESOURCES MANAGEMENT

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

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

FEDERAL EXPRESS

QUESTIONS? CALL 800-238-5355 TOLL FREE.

AIRBILL NUMBER

3970

DATE

6/29/93

AIRBILL NUMBER

3970

From (Your Name) **H. Weatherford** Your Phone Number (Very Important) **407 875-5816**To (Recipient's Name) **Mr. Clair Fancy, P.E.** Recipient's Phone Number (Very Important) **904 488-1344**Company **FL Gas Transmission** Department/Floor No.Company **FL Dept. of Environmental Reg.** Department/Floor No.Street Address **601 South Lake Destiny # 450**Exact Street Address (Use of P.O. Boxes or P.O. Zip Codes Will Delay Delivery And Result In Extra Charge.) **2600 Blair Stone Road**City **Maitland** State **FL** ZIP Required For Correct Invoicing **32751**City **Tallahassee** State **FL** ZIP Street Address Zip Required **32399-2400**

YOUR BILLING REFERENCE INFORMATION (FIRST 24 CHARACTERS WILL APPEAR ON INVOICE.)

HOLD FOR PICK-UP AT THIS FEDERAL EXPRESS LOCATION:

Street Address (See Service Guide or Call 800-238-5355)

PAYMENT Bill Sender Bill Recipient's FedEx Acct. No. Bill 3rd Party FedEx Acct. No. Bill Credit Card Cash

SERVICES CHECK ONLY ONE BOX

 PRIORITY 1 Overnight Delivery Using Your Package (24" x 15") **OVERNIGHT LETTER*** (Our Packages 9" x 12") **OVERNIGHT DELIVERY USING OUR PACKAGING** Courier-Pak Overnight Envelope* (24" x 15") Overnight Box A (12 1/2" x 17 1/2" x 3") Overnight Tube B (38" x 6" x 6") **STANDARD AIR** Delivery not later than second business day

*Declared Value Limit \$100.

SERVICE COMMITMENT

PRIORITY 1 - Delivery is scheduled early next business morning in most locations. If it takes two or more business days if the destination is outside our primary service areas.

STANDARD AIR - Delivery is generally next business day or not later than second business day. If it takes three or more business days if the destination is outside our primary service areas.

Sender authorizes Federal Express to deliver this shipment without obtaining a delivery signature and shall indemnify and hold harmless Federal Express from any claims resulting therefrom.

Release Signature: **K. P. Sullivan**

DELIVERY AND SPECIAL HANDLING CHECK SERVICES REQUIRED

 HOLD FOR PICK-UP (Fill in Section H at right) **DELIVER WEEKDAY** **DELIVER SATURDAY** (Extra charge) **DANGEROUS GOODS** P-1 and Standard Air Packages only. Extra charge (Extra charge) (Do Not Complete Section 5) **CONSTANT SURVEILLANCE SERVICE (CSS)** (Extra charge) (Do Not Complete Section 5) **DRY ICE** Lbs. **OTHER SPECIAL SERVICE** **SATURDAY PICK-UP** (Extra charge)PACKAGES **1** WEIGHT **LBS** YOUR DECLARED VALUE **1** OVER SIZE**1** **LBS****2** **LBS****3** **LBS****4** **LBS**

Total Total Total

Received At Regular Stop On-Call Stop Drop Box BSC Station

Federal Express Corp. Employee No.

Date/Time For Federal Express Use

Federal Express Use

Basic Charges

Declared Value Charge

Origin Agent Charge

Other

Total Charges

PART #2041738900

FEC-S-750-25

REVISION DATE 10/86

PRINTED U.S.A. NCRE

RECIPIENT'S COPY



Florida Gas Transmission Company

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

RECEIVED
DER - MAIL ROOM
1993 JAN 20 AM 11:00

January 18, 1993

Mr. C. H. Fancy, Chief
Bureau of Air Regulation
Florida Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Dear Mr. Fancy:

Re: Permit Amendment Processing Fee for
Nine Florida Gas Transmission Permits

As instructed in your January 13, 1993 letter, a check for \$250 is enclosed to cover the permit amendment processing fee for all nine of the subject permits.

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

Very truly yours,

Allan Weatherford
Compliance Environmentalist

AW0118a.swp

Enclosure

cc: Chuck Truby
Raymond Young

CHECK NO.
0622503989

**ENRON
CORP**

FLORIDA GAS TRANSMISSION COMPANY
P.O. BOX 1188
HOUSTON, TEXAS 77251-1188

January 18, 1993

DATE OF CHECK

PAY EXACTLY TWO HUNDRED FIFTY AND NO/100 DOLLARS \$250.00

This check is VOID unless printed on BLUE background

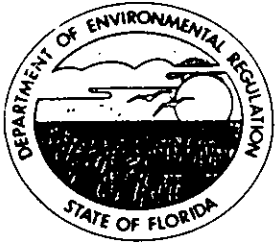
PAY TO THE ORDER OF

Florida Department of Environmental Regulations
Twin Towers Office Bldg.
2600 Blair Stone Rd.
Tallahassee, FL 32399-2400

NOT VALID OVER \$5,000 UNLESS COUNTERSIGNED

UNITED BANK OF GRAND JUNCTION

⑈0622503989⑈ ⑆102100918⑆ 606 0034075⑈



Florida Department of Environmental Regulation

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

Lawton Chiles, Governor

Carol M. Browner, Secretary

May 15, 1992

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Allan Weatherford
Compliance Environmentalist
Florida Gas Transmission Company
P.O. Box 945100
Maitland, Florida 32399-2400

Dear Mr. Weatherford:

Re: Construction Permits Nos. AC 57-188869, AC 67-189220,
AC 20-189438, AC 62-189439, AC 04-189454, AC 42-189455,
AC 48-189456, AC 05-189665, and AC 56-189457

The Department is in receipt of your letter dated April 29, 1992, requesting the extension of the expiration dates of the above referenced permits. This request is acceptable. The expiration dates of these construction permits will be changed as follows:

FROM: June 30, 1992
TO: June 30, 1993

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


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.

Sincerely,

for 
STEVE SMALLWOOD, P.E.
Director
Division of Air Resources Mgmt.

SS/TH/plm

Attachment to be Incorporated:

Mr. Weatherford's letter of April 29, 1992

cc: Ed Middleswart Andy Kutyna
Charles Collins Isidore Goldman



Florida Gas Transmission Company

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

Federal Express

April 29, 1992

RECEIVED
SER - MAIL ROOM
1992 APR 30 AM 10:49

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

Dear Mr. Fancy:

RE: Request for Extensions of Construction Permits
Phase II Air 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

Mr. Clair Fancy
Page 2 of 2
April 29, 1992

On behalf of Florida Gas Transmission Company, I respectfully request extensions of the construction permits referenced above. The permits are due to expire on June 30, 1992 and FGT needs more time to evaluate the operation and performance of the engines.

Emissions tests were done on the engines in March 1992. The test reports will be submitted to DER within the next two weeks. Preliminary results indicate that all emission limits were met.

FGT requests the expiration dates be extended to June 30, 1993. This 12-month extension will allow FGT the necessary time to thoroughly evaluate the operation of the new engines and to determine if additions or revisions to the permits are needed.

In anticipation of your approval, I've enclosed a check for \$450 to cover the permit extension fee for each of the nine stations.

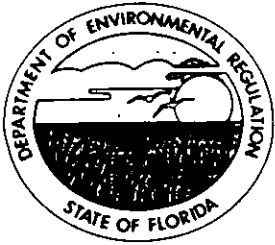
Sincerely,



Allan Weatherford
Compliance Environmentalist

bc
aw0429cf

cc: Chuck Truby
Raymond Young
Fred Griffin
Bill Osborne
Glenn Sellars
Levon Carroll
Bob Beckham
Don Sterba
Duwood Mulford
Buddy Morris
James Dollar
Jim Read
Les Shadd
Leroy Coker
Wayne Daniels
Riley Jackson
Donnie Owings
Joe Kolb
Tom Gardiner, ENSR
S. Allen



Florida Department of Environmental Regulation

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

Lawton Chiles, Governor

Carol M. Browner, Secretary

May 15, 1992

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Allan Weatherford
Compliance Environmentalist
Florida Gas Transmission Company
P.O. Box 945100
Maitland, Florida 32399-2400

Dear Mr. Weatherford:

Re: Construction Permits Nos. AC 57-188869, AC 67-189220,
AC 20-189438, AC 62-189439, AC 04-189454, AC 42-189455,
AC 48-189456, AC 05-189665, and AC 56-189457

The Department is in receipt of your letter dated April 29, 1992, requesting the extension of the expiration dates of the above referenced permits. This request is acceptable. The expiration dates of these construction permits will be changed as follows:

FROM: June 30, 1992
TO: June 30, 1993

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

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.


Mr. Allan Weatherford
Page 2 of 2

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.

Sincerely,

for 
STEVE SMALLWOOD, P.E.
Director
Division of Air Resources Mgmt.

SS/TH/plm

Attachment to be Incorporated:

Mr. Weatherford's letter of April 29, 1992

cc: Ed Middleswart Andy Kutyna
Charles Collins Isidore Goldman



Florida Gas Transmission Company

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

Federal Express

April 29, 1992

RECEIVED
SER - MAIL ROOM
1992 APR 30 AM 10:49

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

Dear Mr. Fancy:

**RE: Request for Extensions of Construction Permits
Phase II Air 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

Mr. Clair Fancy
Page 2 of 2
April 29, 1992

On behalf of Florida Gas Transmission Company, I respectfully request extensions of the construction permits referenced above. The permits are due to expire on June 30, 1992 and FGT needs more time to evaluate the operation and performance of the engines.

Emissions tests were done on the engines in March 1992. The test reports will be submitted to DER within the next two weeks. Preliminary results indicate that all emission limits were met.

FGT requests the expiration dates be extended to June 30, 1993. This 12-month extension will allow FGT the necessary time to thoroughly evaluate the operation of the new engines and to determine if additions or revisions to the permits are needed.

In anticipation of your approval, I've enclosed a check for \$450 to cover the permit extension fee for each of the nine stations.

Sincerely,



Allan Weatherford
Compliance Environmentalist

bc
aw0429cf

cc: Chuck Truby
Raymond Young
Fred Griffin
Bill Osborne
Glenn Sellars
Levon Carroll
Bob Beckham
Don Sterba
Duwood Mulford
Buddy Morris
James Dollar
Jim Read
Les Shadd
Leroy Coker
Wayne Daniels
Riley Jackson
Donnie Owings
Joe Kolb
Tom Gardiner, ENSR

S. Allen