



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

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

4APT-AEB

MAY 31 1991

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

RECEIVED

JUN 03 1991

Division of Air
Resources Management

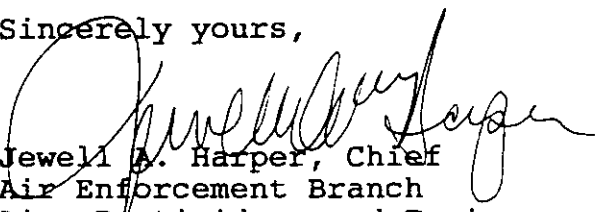
Dear Mr. Fancy:

This is to acknowledge receipt of your final determinations and permits for modifications to Compressor Station Nos. 12 through 18 and 20 of the above referenced source, by letters dated May 9, 1991.

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 packages as requested and have no adverse comments.

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,


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

J. Dixon
CHF/SC



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET, N.E.
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APR 15 1991

DER-BAQM

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-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

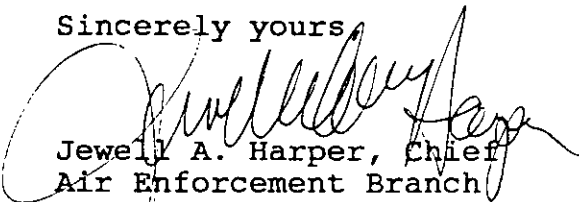
Dear Mr. Fancy:

This is to acknowledge receipt of your preliminary determinations and draft permits for modifications to Compressor Station Nos. 13 through 18 and 20 of the above referenced source, by letters dated March 14, 1991.

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 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. There is however a typographical error in the draft permit for the Marion County Station. The federal permit number for this Station should be listed as PSD-FL-162.

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


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

cc: J. Deaton



United States Department of the Interior
FISH AND WILDLIFE SERVICE



IN REPLY REFER TO:

MAILING ADDRESS:
Post Office Box 25486
Denver Federal Center
Denver, Colorado 80225

STREET LOCATION:
134 Union Blvd.
Lakewood, Colorado 80228

RW Air Quality
Mail Stop 60130

APRIL 09 1991

RECORDED

APR 15 1991

DER-BAQM

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

Dear Mr. Fancy:

We have completed reviews of PSD permit applications and the State's Preliminary Determinations for four projects proposed by Florida Gas Transmission Company (FGT). We understand that FGT has submitted a total of nine applications to the State relating to the proposed expansion of their existing natural gas pipeline. The four applications that we reviewed all consist of the addition of one natural-gas-fired, reciprocating internal combustion engine to an existing compressor station. It is proposed that stations 14 and 17 will add one 2400 brake horsepower engine each, while stations 15 and 16 will each add a 4000 brake horsepower engine. The applications are subject to PSD review because the expansions will result in significant increases in nitrogen oxide (NO_x) emissions.

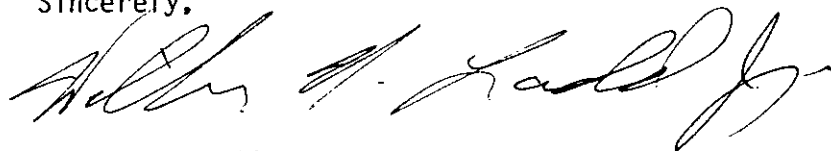
The four stations are located near three class I air quality areas administered by the U.S. Fish and Wildlife Service. The table below lists the station number and the county in which it is located, the proposed NO_x emissions in tons per year (TPY), the distance and direction of each station from the class I area, and the maximum predicted annual nitrogen dioxide increment consumption from this project in micrograms per cubic meter (ug/m³).

STATION NUMBER	NO _x (TPY)	CLASS I AREA	DISTANCE	MODEL IMPACT (ug/m ³)
14 (Gadsden County)	46.3	Saint Marks	58 NW	0.01
15 (Taylor County)	77.2	Saint Marks	36 E	0.01
16 (Bradford County)	77.2	Okefenokee	73 S	0.01
17 (Marion County)	46.3	Chassahowitzka	95 NE	0.004

We agree that the proposed lean-burn engines represent best available control technology. We also agree that the visibility analyses indicate that the proposed emissions would have low potential for visibility impairment due to plume impacts in the wilderness areas. The results of the State's air quality dispersion modeling analyses show a minimal increase in nitrogen dioxide concentrations in the wilderness areas from the proposed expansions. We prefer, in most cases, to see a cumulative analysis that includes all increment consuming sources having the potential of impacting class I areas. In addition, to assess potential impacts on sensitive air quality related values, it is important for us to know the total ambient concentrations (increment plus background) at the class I areas. However, given FGT's predicted impacts at the wilderness areas, it is unlikely that emissions from the proposed expansions would combine with other sources in the area to significantly impact the air quality or related values at the three class I areas of concern.

If you have any questions regarding this matter, please contact Tonnie Maniero of our Air Quality Branch in Denver at (303) 969-2071.

Sincerely,



Wilbur N. Ladd, Jr.
Assistant Regional Director
Refuges and Wildlife, Region 6

cc: J. Heron
C. Holladay
B. Andrews

PM
4-2-91
Gainesville, FL

Filer Copy



April 2, 1991

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

RECEIVED
APR 3 1991
DER - BAQM

Re: AC 42-189455; PSD-FL-161
Florida Gas Transmission Co.
Station 17, Unit No. 5
Marion County; Silver Springs, Florida

Dear Mr. Fancy:

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

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

Thank you for consideration of these comments.

Sincerely,

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

cc: Bill Osborne
Jim Alves

Teresa Heron
BAICHF
Chuck Collins, CD } 4-4-91 m

File Copy
AC 42-129155
DOR-FL-161



Florida Gas Transmission Company

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

March 26, 1991

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

✓ NO 2
100
100 2

Dear Mr. Andrews:

Re: Intent to Issue Permit
Proof of Publication - Air Permit
Florida Gas Transmission Company
Compressor Station 17, Silver Springs, Fl

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

Sincerely,

Allan Weatherford
Compliance Environmentalist

AW:kb
letter.28

cc: Chuck Truby
Raymond Young
Levon Carroll
Leroy Coker
Joe Kolb
Bill Osborne
E. Andersen Olson

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MAR 28 1991

DER-BAQM



RECEIVED

December 17, 1990

DEC 18 1990

Ms. Theresa Heron
Florida Dept. of Environmental Regulation
Twin Towers Office Bldg.
2600 Blair Stone Road
Tallahassee, FL 32399

DER-BAQM

RE: ENRON/FGTC Compressor Station No. 17 PSD Permit Application

Dear Ms. Heron:

As you requested, attached is the sheet of emission calculations for FGTC's Compressor Station No. 17. Please feel free to contact me at your convenience if you have further questions concerning this permit application.

Sincerely,

David A. Buff

David A. Buff, P.E.
Principal Engineer

TT/tla

cc: Alan Bowman, ENRON

Attachment

*cc: J. Heron
B. Andrews
C. Holladay
J. Harper, EPA
C. Collins, ADist
A. Shaver, NPS*

90051A1/5

KBN ENGINEERING AND APPLIED SCIENCES, INC.

1034 Northwest 57th Street Gainesville, Florida 32605 904/331-9000 FAX: 904/332-4189

EQUAL EMPLOYMENT OPPORTUNITY / AN AFFIRMATIVE ACTION EMPLOYER

EMISSION CALCULATIONS
FGTC's COMPRESSOR STATION No. 17
MARION COUNTY, FLORIDA

Fuel usage and emission calculations are presented below for the proposed Dresser-Rand Model 412-KVSR reciprocating IC engine at Compressor Station No. 17.

Fuel Usage:

$$\begin{aligned} (2,400 \text{ bhp}) \times (7,300 \text{ Btu/bhp-hr}) &= 17.52 \times 10^8 \text{ Btu/hr} \\ (17.52 \times 10^8 \text{ Btu/hr}) / (1,030 \text{ Btu/scf}) &= 17,010 \text{ scf/hr} \end{aligned}$$

Emission Calculations:

$$\begin{aligned} \text{NO}_x: (2.0 \text{ g/bhp-hr})(2,400 \text{ bhp})(1 \text{ lb}/453.593 \text{ g}) &= 10.582 \text{ lb/hr} \\ (10.582 \text{ lb/hr})(8,760 \text{ hr/yr})(1 \text{ ton}/2,000 \text{ lb}) &= 46.3 \text{ TPY} \end{aligned}$$

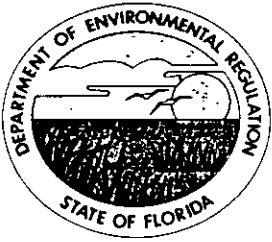
$$\begin{aligned} \text{CO: } (2.8 \text{ g/bhp-hr})(2,400 \text{ bhp})(1 \text{ lb}/453.593 \text{ g}) &= 14.815 \text{ lb/hr} \\ (14.815 \text{ lb/hr})(8,760 \text{ hr/yr})(1 \text{ ton}/2,000 \text{ lb}) &= 64.9 \text{ TPY} \end{aligned}$$

VOCs(non-methane hydrocarbon):

$$\begin{aligned} (1.7 \text{ g/bhp-hr})(2,400 \text{ bhp})(1 \text{ lb}/453.593 \text{ g}) &= 8.995 \text{ lb/hr} \\ (8.995 \text{ lb/hr})(8,760 \text{ hr/yr})(1 \text{ ton}/2,000 \text{ lb}) &= 39.4 \text{ TPY} \end{aligned}$$

$$\begin{aligned} \text{PM: } (5 \text{ lb}/10^8 \text{ scf})(17,010 \text{ scf/hr}) &= 0.085 \text{ lb/hr} \\ (0.085 \text{ lb/hr})(8,760 \text{ hr/yr})(1 \text{ ton}/2,000 \text{ lb}) &= 0.37 \text{ TPY} \end{aligned}$$

$$\begin{aligned} \text{SO}_2: (10 \text{ gr}/100 \text{ scf})(17,010 \text{ scf/hr})(1 \text{ lb}/7,000 \text{ gr}) &= 0.243 \text{ lb/hr of Sulfur} \\ (2 \text{ lb SO}_2/\text{lb Sulfur})(0.243 \text{ lb/hr Sulfur}) &= 0.486 \text{ lb/hr of SO}_2 \\ (0.486 \text{ lb/hr})(8,760 \text{ hr/yr})(1 \text{ ton}/2,000 \text{ lb}) &= 2.13 \text{ TPY} \end{aligned}$$



Florida Department of Environmental Regulation

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

Bob Martinez, Governor

Dale Twachtmann, Secretary

John Shearer, Assistant Secretary

November 28, 1990

Ms. Jewell A. Harper, Chief
Air Enforcement Branch
U.S. EPA - Region IV
345 Courtland Street, N.E.
Atlanta, Georgia 30365

Dear Ms. Harper:

Re: Completeness Review

The enclosed information is being forwarded to you for completeness review.

1. Seminole Fertilizer Corp., Polk County, gas turbine cogeneration project, PSD-FL-157.

2. The following applications from Florida Gas Transmission Company:

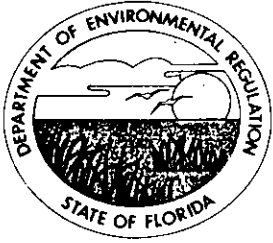
Compressor Sta. No. 12, Santa Rosa County, PSD-FL-156
Compressor Sta. No. 13, Washington County, PSD-FL-158
Compressor Sta. No. 14, Gadsden County, PSD-FL-159
Compressor Sta. No. 15, Taylor County, PSD-FL-160
Compressor Sta. No. 16, Bradford County, PSD-FL-161
Compressor Sta. No. 17, Marion County, PSD-FL-162
Compressor Sta. No. 18, Orange County, PSD-FL-163
Compressor Sta. No. 20, St. Lucie County, PSD-FL-164

If there are any questions, please call Barry Andrews at (904)488-1344 or write to me at the above address. If it is convenient to FAX a response to us, the FAX number to use is (904)922-6979.

Sincerely,

Patricia G. Adams
for
C. H. Fancy, P.E.
Chief
Bureau of Air Regulation

CHF/pa



Florida Department of Environmental Regulation

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

Bob Martinez, Governor

Dale Twachtman, Secretary

John Shearer, Assistant Secretary

November 28, 1990

Mrs. Chris Shaver
Chief, Permit Review and Technical
Support Branch
National Park Service
Air Quality Division
P. O. Box 25287
Denver, Colorado 80255

Dear Mrs. Shaver:

Re: Completeness Review

The following PSD permit applications from Florida Gas Transmission Company are being submitted to you for your review and comment:

Compressor Sta. No. 14, Gadsden County, PSD-FL-159
Compressor Sta. No. 15, Taylor County, PSD-FL-160
Compressor Sta. No. 16, Bradford County, PSD-FL-161
Compressor Sta. No. 17, Marion County, PSD-FL-162

If there are any questions, please call Barry Andrews or Cleve Holladay at (904) 488-1344 or write to me at the above address. All comments, written or oral, should be received by December 15, 1990. If it is convenient to FAX a response to us, the FAX number to use is (904)922-6979.

Sincerely,

Patricia G. Adams

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

CHF/pa