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OF COUNSEL
W. ROBERT FOKES

January 3, 1991

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Clair Fancy, Chief
Bureau of Air Regulation
Florida Department of Environmental
Regulation
2600 Blair Stone Road, Room 338
Tallahassee, Florida 32399-2400


Re: Florida Gas Transmission Company
Application for Air Operation Permit
Compressor Station No. 18
Orange County

Dear Clair:

As contemplated by the Consent Order entered into by DER and Florida Gas Transmission Company in OGC Case No. 90-1225, enclosed is a completed application for an air operation permit and corresponding application fee for Compressor Station No. 18 in Orange County. Also enclosed are two additional copies of the application form. As required under the Consent Order, we shall submit to the appropriate district office a copy of the application and fee voucher, as well as the signed certified mail receipt, within ten days after receiving the certified mail receipt.

Again, we sincerely appreciate DER's ongoing courtesy and cooperation in this matter.

Very truly yours,


James S. Alves

FlGasLtr:kkm
Enclosures

RECEIVED
DER - MAIL ROOM
JAN - 7 PM 12:05



December 17, 1990

RECEIVED

DEC 18 1990

DER-BAQM

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

RE: ENRON/FGTC Compressor Station No. 18 PSD Permit Application

Dear Ms. Heron:

As you requested, attached is the sheet of emission calculations for FGTC's Compressor Station No. 18. 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
C. Collins, District
J. Harper, EPA*

EMISSION CALCULATIONS
FGTC's COMPRESSOR STATION No. 18
ORANGE COUNTY, FLORIDA

Fuel usage and emission calculations are presented below for the proposed Cooper-Bessemer Model GMVR-12C2 reciprocating IC engine at Compressor Station No. 18.

Fuel Usage:

$$\begin{aligned} (2,400 \text{ bhp}) \times (7,000 \text{ Btu/bhp-hr}) &= 16.80 \times 10^6 \text{ Btu/hr} \\ (16.80 \times 10^6 \text{ Btu/hr}) / (1,030 \text{ Btu/scf}) &= 16,311 \text{ scf/hr} \end{aligned}$$

Emission Calculations:

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

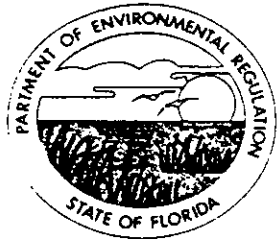
$$\begin{aligned} \text{CO: } (2.1 \text{ g/bhp-hr})(2,400 \text{ bhp})(1 \text{ lb}/453.593 \text{ g}) &= 11.111 \text{ lb/hr} \\ (11.111 \text{ lb/hr})(8,760 \text{ hr/yr})(1 \text{ ton}/2,000 \text{ lb}) &= 48.7 \text{ TPY} \end{aligned}$$

VOCs(non-methane hydrocarbon):

$$\begin{aligned} (0.5 \text{ g/bhp-hr})(2,400 \text{ bhp})(1 \text{ lb}/453.593 \text{ g}) &= 2.646 \text{ lb/hr} \\ (2.646 \text{ lb/hr})(8,760 \text{ hr/yr})(1 \text{ ton}/2,000 \text{ lb}) &= 11.6 \text{ TPY} \end{aligned}$$

$$\begin{aligned} \text{PM: } (5 \text{ lb}/10^6 \text{ scf})(16,311 \text{ scf/hr}) &= 0.082 \text{ lb/hr} \\ (0.082 \text{ lb/hr})(8,760 \text{ hr/yr})(1 \text{ ton}/2,000 \text{ lb}) &= 0.36 \text{ TPY} \end{aligned}$$

$$\begin{aligned} \text{SO}_2: (10 \text{ gr}/100 \text{ scf})(16,311 \text{ scf/hr})(1 \text{ lb}/7,000 \text{ gr}) &= 0.233 \text{ lb/hr of Sulfur} \\ (2 \text{ lb SO}_2/\text{lb Sulfur})(0.233 \text{ lb/hr Sulfur}) &= 0.466 \text{ lb/hr of SO}_2 \\ (0.466 \text{ lb/hr})(8,760 \text{ hr/yr})(1 \text{ ton}/2,000 \text{ lb}) &= 2.04 \text{ TPY} \end{aligned}$$



R-File

Florida Department of Environmental Regulation

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

Bob Martinez, Governor

Dale Twachmann, Secretary

John Shearer, Assistant Secretary

November 20, 1990

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. W. Alan Bowman
Project Environmentalist
Florida Gas Transmission Company
P. O. Box 1188
Houston, Texas 77251

Dear Mr. Bowman:

Re: Natural Gas Compressor Engine
AC 57-188869, PSD-FL-157

The Department has reviewed your application for a permit to construct a 4000 bhp natural gas compressor engine. The engine is to be located at the Florida Gas Transmission Company site, 5 miles north of Munson, Santa Rosa County, Florida.

Based on this review, we have determined that the following information is needed:

1. Attach a derivation of the emission calculations for this source (Unit No. 12). What is the correct air to fuel ratio (60.89)? State and justify all assumptions.
2. Submit complete air construction applications and fees for each existing engine at this site.

We will resume processing your applications as soon as this information is received. If you have any questions about the data requested, please feel free to call Teresa Heron at 904-488-1344 or write to me at the above address.

Sincerely,

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

CHF/TH/plm

c: Jack Preece, NW Dist.
David Buff, P.E.
Jewell Harper, EPA



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