



December 17, 1990

RECEIVED

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. 15 PSD Permit Application

Dear Ms. Heron:

As you requested, attached is the sheet of emission calculations for FGTC's Compressor Station No. 15. 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

*c: T. Heron
B. Andrews
C. Halladay
J. Harper, EPA
A. Kestipra, NE Dist.
C. Shaw, NPS*

EMISSION CALCULATIONS
FGTC's COMPRESSOR STATION No. 15
TAYLOR COUNTY, FLORIDA

Fuel usage and emission calculations are presented below for the proposed Cooper-Bessemer Model 8W-330C2 reciprocating IC engine at Compressor Station No. 15.

Fuel Usage:

$$\begin{aligned} (4,000 \text{ bhp}) \times (6,800 \text{ Btu/bhp-hr}) &= 27.20 \times 10^6 \text{ Btu/hr} \\ (27.20 \times 10^6 \text{ Btu/hr}) / (1,040 \text{ Btu/scf}) &= 26,154 \text{ scf/hr} \end{aligned}$$

Emission Calculations:

$$\begin{aligned} \text{NO}_x: (2.0 \text{ g/bhp-hr})(4,000 \text{ bhp})(1 \text{ lb}/453.593 \text{ g}) &= 17.6 \text{ lb/hr} \\ (17.6 \text{ lb/hr})(8,760 \text{ hr/yr})(1 \text{ ton}/2,000 \text{ lb}) &= 77.2 \text{ TPY} \end{aligned}$$

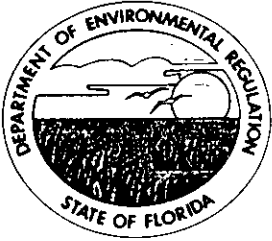
$$\begin{aligned} \text{CO: } (2.5 \text{ g/bhp-hr})(4,000 \text{ bhp})(1 \text{ lb}/453.593 \text{ g}) &= 22.046 \text{ lb/hr} \\ (22.046 \text{ lb/hr})(8,760 \text{ hr/yr})(1 \text{ ton}/2,000 \text{ lb}) &= 96.6 \text{ TPY} \end{aligned}$$

VOCs(non-methane hydrocarbon):

$$\begin{aligned} (1.0 \text{ g/bhp-hr})(4,000 \text{ bhp})(1 \text{ lb}/453.593 \text{ g}) &= 8.819 \text{ lb/hr} \\ (8.819 \text{ lb/hr})(8,760 \text{ hr/yr})(1 \text{ ton}/2,000 \text{ lb}) &= 38.6 \text{ TPY} \end{aligned}$$

$$\begin{aligned} \text{PM: } (5 \text{ lb}/10^6 \text{ scf})(26,154 \text{ scf/hr}) &= 0.1308 \text{ lb/hr} \\ (0.1308 \text{ lb/hr})(8,760 \text{ hr/yr})(1 \text{ ton}/2,000 \text{ lb}) &= 0.57 \text{ TPY} \end{aligned}$$

$$\begin{aligned} \text{SO}_2: (10 \text{ gr}/100 \text{ scf})(26,154 \text{ scf/hr})(1 \text{ lb}/7,000 \text{ gr}) &= 0.374 \text{ lb/hr of Sulfur} \\ (2 \text{ lb SO}_2/\text{lb Sulfur})(0.374 \text{ lb/hr Sulfur}) &= 0.748 \text{ lb/hr of SO}_2 \\ (0.748 \text{ lb/hr})(8,760 \text{ hr/yr})(1 \text{ ton}/2,000 \text{ lb}) &= 3.27 \text{ TPY} \end{aligned}$$



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

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

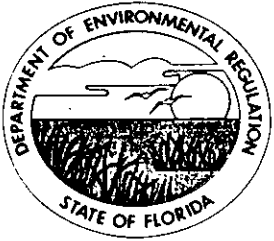
If there are any questions, please call Barry Andrews or Cleve Holladay at (904) 488-1344 or write to me at the above address. All comments, written or oral, should be received by December 15, 1990. If it is convenient to FAX a response to us, the FAX number to use is (904)922-6979.

Sincerely,

Patricia G. Adams

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

CHF/pa



Florida Department of Environmental Regulation

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Bob Martinez, Governor

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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