



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. 14 PSD Permit Application

Dear Ms. Heron:

As you requested, attached is the sheet of emission calculations for FGTC's Compressor Station No. 14. 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. Holladay
J. Harper, EPA
J. Price, NW Dist
C. Shaw, NPS*

EMISSION CALCULATIONS
FGTC's COMPRESSOR STATION No. 14
GADSDEN 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. 14.

Fuel Usage:

(2,400 bhp) x (7,000 Btu/bhp-hr) - 16.80 x 10⁶ Btu/hr
(16.80 x 10⁶ Btu/hr)/(1,040 Btu/scf) - 16,154 scf/hr

Emission Calculations:

NO_x: (2.0 g/bhp-hr)(2,400 bhp)(1 lb/453.593 g) - 10.582 lb/hr
(10.582 lb/hr)(8,760 hr/yr)(1 ton/2,000 lb) - 46.3 TPY

CO: (2.1 g/bhp-hr)(2,400 bhp)(1 lb/453.593 g) - 11.111 lb/hr
(11.111 lb/hr)(8,760 hr/yr)(1 ton/2,000 lb) - 48.7 TPY

VOCs(non-methane hydrocarbon):

(0.5 g/bhp-hr)(2,400 bhp)(1 lb/453.593 g) - 2.646 lb/hr
(2.646 lb/hr)(8,760 hr/yr)(1 ton/2,000 lb) - 11.6 TPY

PM: (5 lb/10⁶ scf)(16,154 scf/hr) - 0.081 lb/hr
(0.081 lb/hr)(8,760 hr/yr)(1 ton/2,000 lb) - 0.35 TPY

SO₂: (10 gr/100 scf)(16,154 scf/hr)(1 lb/7,000 gr) - 0.231 lb/hr of Sulfur
(2 lb SO₂/lb Sulfur)(0.231 lb/hr Sulfur) - 0.462 lb/hr of SO₂
(0.462 lb/hr)(8,760 hr/yr)(1 ton/2,000 lb) - 2.02 TPY