

# Florida Department of Environmental Protection

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

Virginia B. Wetherell Secretary

December 16, 1993

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Duane Pierce, Ph.D. Air Quality Supervisor Phase III Expansion Project Florida Gas Transmission Company P.O. Box 1188 Houston, Texas 77251-1188

Dear Mr. Pierce:

RE: Request for Permit Amendments
AC 09-229441 Natural Gas Compressor Station No. 26, Citrus
County
AC 50-229440 Natural Gas Compressor Station No. 21, Palm Beach
County
AC 62-229319/PSD-FL-202 Compressor Station No. 15, Taylor
County
AC 56-230129/PSD-FL-203 Compressor Station No. 20, St. Lucie
County

The Department has reviewed your November 24, 1993, letter requesting some minor changes from the design submitted in the original application. As stated in your letter, these proposed changes do not involve increases of any air emissions from the turbines covered by these permits. Air dispersion modeling of  $NO_X$  emissions has been performed using the U.S. EPA's ISCLT2 model to evaluate the relative effect on air quality impacts of these proposed changes. No adverse air quality impacts will occur with these. The Department has evaluated these requests and has agreed to the changes as proposed.

## Attachment to be Incorporated:

Mr. Duane Pierce's letter dated November 23, 1993.

Mr. Duane Pierce December 16, 1993 Page Two

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 applicant of the amendment request/application and the parties listed below must be filed within 14 days of receipt of this amendment. Petitions filed by other persons must be filed within 14 days of the amendment issuance or within 14 days of their receipt of this amendment, whichever occurs first. 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;
- (g) A statement of the relief sought by petitioner, stating precisely the action the 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 amendment. Persons whose substantial interests will be affected by any decision of the Department with regard to the request/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 amendment in the Office of General Counsel at the above

Mr. Duane Pierce December 16, 1993 Page Three

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.

This letter amendment must be attached to construction Permit No. AC 09-229441 and AC 50-229440 and shall become a part of each permit.

Sincerely,

Howard L. Rhodes

Director

Division of Air Resources

Management

HLR/TH/bjb

## Attachment to be Incorporated:

Mr. Duane Pierce's letter of November 23, 1993.

cc: Isidore Goldman - SED Bill Thomas - SWD

### CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this AMENDMENT and all copies were mailed by certified mail before the close of business on 10,00,195 to the listed persons.

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to \$120.52(11), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Date

P. O. Box 1188 Houston, Texas 77251-1188 (713) 853-6161

November 18, 1993

RECEIVED

NOV 22 1993

Division of Air Resources Management

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

RE: Air Permit AC 56-230129 / PSD-FL-203

Natural Gas Compressor Station No. 20, St. Lucie County

Dear Mr. Fancy:

As discussed in a telephone conversation with Ms. Teresa Heron of your staff on November 17, Florida Gas Transmission Company's (FGT) Phase III Expansion Engineering Group has refined the design of the Phase III expansion for Compressor Station No. 20 and FGT proposes to make some desirable minor changes from the original design submitted in the original air permit application. FGT understands that these changes are minor and of an administrative nature and that they do not require public notice or a lengthy review period.

It is extremely important to FGT that the start of construction not be delayed. If the FDEP should decide that either a public notice or lengthy review is required for these proposed changes, then FGT will not make them.

These proposed changes do <u>not</u> involve increases in any air emissions or air quality impacts from the engine covered by this permit. Additionally, air dispersion modeling of NO<sub>x</sub> emissions has been performed using the U.S. EPA's ISCLT2 model to evaluate the relative effect on air quality impacts of these proposed changes. The modeling demonstrates that these proposed changes will result in an improvement in the already minimal air quality impacts of this project.

#### CHANGES

The proposed changes are described below.

1. The new Compressor Building will have an increased width and a decreased length. The original and new dimensions are given in the table below.

## **New Compressor Building Dimension Changes**

BUILDING DIMENSION	ORIGINAL	NEW	
HEIGHT	41' (12.5 m) NO CHANG		
LENGTH	72' (21.94 m)	63.5' (19.35 m)	
WIDTH	60' (18.29 m)	62.25' (18.97 m)	

2. The Emergency Generator size requirement has been decreased and will be changed from a 625 hp unit to 457 hp unit. The unit will still not be operated more than 400 hours per year. NO<sub>x</sub>, CO and VOC lb/hr emission rates will all decrease and some other parameters will be changed. Some of these changes have the potential to change impacts, therefore the stack height has been increased. The changes are summarized in the table below. Vendor information is provided in Attachment A.

## **Revised Emergency Generator Parameters**

PARAMETER	ORIGINAL	NEW	
Size (hp)	625	457	
Stack Height (ft)	22 (6.71 m)	26 (7.92 m)	
Stack Diameter (ft)	0.5 (0.15 m)	NO CHANGE	
Exhaust Flow Rate (acfm)	3043 (86.16 m³)	2341 (66.28 m³)	
Exhaust Temperature (° F)	1112 (600° C)	1050 (566° C)	
NO <sub>x</sub> Emissions (lb/hr)	1.35	0.99	
CO Emissions (lb/hr)	2.95	2.16	
VOC Emissions (lb/hr)	0.055	0.04	

3. Minor changes have been made to the original plot plan. A new one is provided in Attachment B.

## **DISPERSION MODELING**

Air dispersion modeling was performed using ISCLT2 to compare the relative effects on air quality impacts of these changes. The same meteorology used in the original application (West Palm Beach, upper and surface data, 1982-1986) was used for this dispersion modeling. The model input files used in the original application were modified to reflect the proposed changes as follows:

- Downwash parameters were changed to reflect the new Compressor Building dimensions, the new Emergency Generator stack height and the new configuration shown in the plot plan. The same input file and downwash program (Bowman Engineering's GEP Program) that were used in the original application were used to generate downwash parameters for the modeling of these proposed changes.
- 2) Stack coordinates and Emergency Generator stack parameters were changed to reflect the new values.
- The receptor grids were revised to meet the limitations of the ISCLT2 version used. This version limits the number of receptors to 500. Since the original modeling used receptor grids larger than 500, the grid sizes had to be reduced. The reduced grid sizes were located so that they included the receptors with the highest impacts in the original application modeling.

The maximum concentration resulting from the ISCLT2 modeling decreased from 1.842 ug/m³ with our permitted parameters to 1.832 ug/m³ with the new parameters. Modeling was repeated for the PSD increment analysis and the National Ambient Air Quality Standard (NAAQS) analysis. Both analyses indicated a decreased impact with the new parameters. The results are summarized below.

As stated above, this indicates that the proposed changes should result in even lower ambient air quality impacts than the already predicted low impacts. The output from the modeling runs and the downwash program and a computer disk with both input and output files have been sent to Mr. Cleveland Holladay of the FDEP under separate cover.

# NO<sub>x</sub> Air Dispersion Modeling Results

PARAMETERS	MAXIMUM OFFSITE CONCENTRATION (ug/m³)	YEAR	RECEPTOR LOCATION			
			East meters	North meters		
New Sources						
Original	1.842	1986	-200	0		
Proposed	1.833	1986	-200	0		
PSD Increment Analysis						
Original	2.316	1986	557700	3035725		
Proposed	2.107	1986	557200	3035725		
NAAQS Analysis (Without O <sub>3</sub> Limiting Analysis)						
Original	286.54	1982	557800	3035725		
Proposed	285.99	1982	557800	3035725		

In summary, the changes in the Emergency Generator stack parameters and the Compressor Building dimensions should result in improved air quality impacts compared to what was proposed in FGT's original application.

Again, FGT would like to restate that it is extremely important that these proposed changes do not delay start of construction for this project and that FGT will not make these changes if that is the case.

Should you have any questions concerning these changes or need additional information, please do not hesitate to call me at (713) 853-3569.

Sincerely,

V. Duane Pierce, Ph.D.

Air Quality Supervisor

Phase III Expansion Project

Florida Gas Transmission Company

v. Wum Viewe

Florida Gas Transmission Company Compressor Station No. 20 November 18, 1993

Page 5

cc:

Carlon Nelson William Osborne Allan Weatherford Files

FILE: 20FDER01.LTR