

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

NOTICE OF FINAL PERMIT

In the Matter of an
Application for Permit by:

Florida Gas Transmission Company
P.O. Box 1188
Houston, TX 77251

Air Permit No. 0571279-001-AC
New Compressor Station No. 27
Hillsborough County, Florida


Authorized Representative:

Mr. Rick Craig, V.P. of Southeastern Operations

Enclosed is Final Air Permit No. 0571279-001-AC, which authorizes the construction of a new compressor station for Florida Gas Transmission Company's existing natural gas pipeline. The new facility will be located approximately two miles south of U.S. Highway 301 on County Road 579 near the city of Thonotosassa in Hillsborough County, Florida. As noted in the Final Determination (attached), only minor changes to correct typographical errors were made. This permit is issued pursuant to Chapter 403, Florida Statutes.

Any party to this order has the right to seek judicial review of it under Section 120.68 of the Florida Statutes, by filing a notice of appeal under Rule 9.110 of the Florida Rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel, Mail Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000, and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The notice must be filed within thirty (30) days after this order is filed with the clerk of the Department.

Executed in Tallahassee, Florida.


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

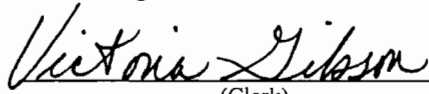
CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Notice of Final Permit (including the Final permit) was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on 8/12/02 to the persons listed:

Mr. Rick Craig, FGTC*
Mr. Jim Thompson, FGTC
Mr. Kevin McGlynn, McGlynn Consulting Co.
Mr. V. Duane Pierce, AQMcS
Mr. Jerry Campbell, EPC of HC
Mr. Gerry Kissel, SWD

Clerk Stamp

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

 August 12, 2002
(Clerk) (Date)

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY			
<ul style="list-style-type: none"> Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. 	A. Received by (Please Print Clearly)	B. Date of Delivery		
1. Article Addressed to: Mr. Rick Craig V.P. of Southeastern Operations Florida Gas Transmission Company PO Box 1188 Houston, TX 77251	C. Signature X <i>Bill Ke...</i>			
2. Article 7001 0320 0001 3692 8130	D. Is delivery address different from item 1? If YES, enter delivery address below: <table border="0"> <tr> <td><input type="checkbox"/> Yes</td> <td><input type="checkbox"/> No</td> </tr> </table>		<input type="checkbox"/> Yes	<input type="checkbox"/> No
<input type="checkbox"/> Yes	<input type="checkbox"/> No			
PS Form 3811, July 1999	3. Service Type <input checked="" type="checkbox"/> Certified Mail <input type="checkbox"/> Express Mail <input type="checkbox"/> Registered <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D.	4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes		
Domestic Return Receipt 102595-00-M-0952				

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Postage	\$	Postmark Here						
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Restricted Delivery Fee (Endorsement Required)								
Total Postage & Fees	\$							
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PS Form 3900, January 2001 See Reverse for Instructions								

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FINAL DETERMINATION

PERMITTEE

Florida Gas Transmission Company
P.O. Box 1188
Houston, TX 77251

PERMITTING AUTHORITY

Florida Department of Environmental Protection
Division of Air Resources Management
Bureau of Air Regulation
New Source Review Section
2600 Blair Stone Road, MS #5505
Tallahassee, Florida, 32399-2400

PROJECT

Air Permit No. 0571279-001-AC
Hillsborough Compressor Station No. 27

Florida Gas Transmission Company proposes to construct a new compressor station for their existing natural gas pipeline. It will consist of two 7200 bhp gas turbine compressor engines and miscellaneous support equipment including a 585 bhp emergency generator, storage tanks, buildings and ancillary equipment. The compressor engines and emergency generator will fire only natural gas. The new facility will be located approximately two miles south of U.S. Highway 301 on County Road 579 near the city of Thonotosassa in Hillsborough County, Florida.

NOTICE, PUBLICATION, AND ADMINISTRATIVE PROCEDURES

The Department distributed an "Intent to Issue Permit" package on March 4, 2002. The applicant published the "Public Notice of Intent to Issue" in The Tampa Tribune on March 12, 2002. The Department received the proof of publication on March 20, 2002. An extension of time in which to file a petition was filed by a third party and later withdrawn. A third party filed a petition and an administrative hearing held on July 18th and 19th. Before presenting a case, the petitioners withdrew their petition. The hearing officer closed the administrative case on July 23, 2002. The Department attended an informational meeting held by U.S. Congressman Bilirakis on August 6th.

COMMENTS

No comments on the Draft Permit were received from the Department's Southwest District Office or the applicant. The Department received approximately 350 comment letters and several neighborhood petitions with perhaps hundreds of more signatures. The following discussion generally summarizes the types of comments received from the public.

1. *Comment:* The applicant did not file the proper notification.

Response: An applicant for a state air permit is only required to publish a notice of the Department's intent to issue a permit in a newspaper of general circulation in the area of the project. By law, the notice must be published for one day only. Affected parties have 14 days to provide comments on the draft permit, to petition the project by seeking an administrative hearing, or to file for an extension of time in which to decide whether or not to petition the project. For this project, Florida Gas Transmission Company (FGTC) published the Public Notice in The Tampa Tribune on March 12, 2002 and provided proof of publication to the Department. As a result of the publication, the Department received approximately 350 comment letters, an extension of time was filed (later withdrawn), and an administrative hearing was held (petition ultimately withdrawn). Accordingly, the Department's requirements for notification were met.

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2. *Comment:* The proposed station would be too close to nearby schools, churches, lakes, homes, cattle, and crops. Pollution from the proposed project would threaten nearby people, animals, and crops. Pollution from the proposed station would adversely affect people with existing illnesses.

Response: Based on the potential maximum emissions from the proposed compressor station, the project is considered a minor source of air pollution. In general, gas turbines provide excellent dispersion of any pollutants emitted due to the high temperature and velocity of the exhaust. It is expected to have little impact on the existing ambient air quality. The Department does not generally require an ambient air impact analysis for minor sources of air pollution. However, screening models indicate that the maximum predicted ambient impacts are well below the state and federal Ambient Air Quality Standards (AAQS). These standards were designed to protect the public health while providing an adequate margin of safety.

3. *Comment:* The Department should ensure that the gas turbines have the most stringent controls.

Response: Major sources of air pollution that will be located in areas not currently meeting the state or federal Ambient Air Quality Standards are required to undergo new source nonattainment area preconstruction review. This process requires installation of the most stringent pollution controls, which would result in emission levels meeting the Lowest Achievable Emission Rate (LAER). LAER determinations are common in other regions, such as California. However, this process is not applicable because the project is a minor source of air pollution and Florida is currently in attainment with all Ambient Air Quality Standards.

Major sources of air pollution that will be located in areas that currently meet the state and federal Ambient Air Quality Standards are required to undergo new source preconstruction review for the prevention of significant deterioration (PSD). This process requires the installation of the Best Available Control Technology (BACT) to reduce emissions. BACT technology must be proven, commercially available, and cost effective. In addition, these projects must also provide a detailed ambient air impact analysis. Because this project is a minor source of air pollution, this process is not applicable.

As mentioned above, the compressor station project is considered a minor source of air pollution. However, the design incorporates lean premix combustion, which is the same technology used for much larger units that are subject to the more extensive PSD review. In addition, the units will exclusively fire natural gas, which is typically determined to represent the Best Available Control Technology for emissions of particulate matter and sulfur dioxide with regard to the much larger gas turbine projects.

The applicable requirements for gas turbines are the federal New Source Performance Standards in Subpart GG of the Code of Federal Regulations, which Florida adopts by reference into the state rules. The federal requirements specify emissions standards for emissions of nitrogen oxides (NO_x) and sulfur dioxide (SO₂). The draft permit establishes standards that are 1/7 of the federal NO_x standard and 1/25 of the federal SO₂ standard. In addition, the draft permit specifies limits for plume opacity and emissions of carbon monoxide. The Department has concluded that the project complies with the regulatory requirements.

4. *Comment:* The local topography was not considered in any analysis of ambient impacts.

Response: The Department does not generally require an ambient air impact analysis for minor sources of air pollution. However, even for large major sources of air pollution, the Department does not typically consider topography in modeling scenarios. For purposes of air dispersion modeling, Florida is generally flat with some rolling hills and slight changes in elevation. Topography is considered in other states having geographical features such as mountains and valleys. The applicant provided additional information at the administrative hearing that, even considering topography, impacts from the project remain well below the ambient air quality standards. Given the surrounding terrain, the compressor station is located on one of the higher properties, which will aid in the dispersion of any pollutants.

5. *Comment:* The project would be located on one of the highest points in Hillsborough County and would have very high visibility.

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Response: The project site is approximately 20 acres with the gas turbines located on about 1-2 acres near the center of the property. The Department understands that FGTC typically plants trees and other landscape specifically to reduce visibility of their compressor stations. Gas turbines firing only natural gas are expected to have no visible plume from the exhaust stack.

6. *Comment:* The proposed station would be noisy and cause objectionable odors.

Response: The project site provides a buffer that will reduce potential offsite noise impacts. FGTC proposes to add exhaust silencers to the compressor engines and place them in enclosed, sound-attenuated buildings. The Department does not regulate noise, but local entities can impose noise ordinances. The Federal Energy Regulatory Commission (FERC) specifies maximum permissible noise levels (≤ 55 dB LDN) as conditions of the federal certification. For this certification, FGTC performed background noise monitoring and modeled noise impacts to confirm that the project could meet this requirement. The federal certification also requires FGTC to monitor offsite noise levels after completion of the project and to mitigate noise levels above this limit. In addition, Hillsborough County has a noise ordinance that will be enforced by the Environmental Protection Commission of Hillsborough County.

At various locations, the natural gas pipeline is odorized with mercaptan as a safety precaution. In this way, fugitive leaks may be more easily detected. According to FGTC, there will be no noticeable odors from the station during normal operations. However, occasional odors may be noticeable in the immediate vicinity during periods of maintenance or repair. The Department's regulations prohibit objectionable odors and this requirement is included in the draft permit.

7. *Comment:* The project should be located elsewhere. The Department should direct Florida Gas Transmission to pursue an alternate site.

Response: The Department does not select project sites and, in most cases, the siting of projects is at the discretion of local planning and zoning officials. However, the Federal Energy Regulatory Commission (FERC) authorizes the siting of gas transmission projects. For review of the air construction permit application, the Department must determine whether the project meets the state regulatory requirements regarding air pollution. The Department has concluded that the project will comply with its rules.

The following comments were received by the Environmental Protection Commission of Hillsborough County (EPC).

1. *Comment:* EPC requests a reference of the FERC requirements for noise in the project description. EPC also requests that FGTC be notified that Rules of EPC Chapter 1-10 include a nighttime noise standard that must be met from day one of operation.

Response: As previously mentioned, the Department does not regulate noise, but local authorities may impose noise ordinances. This document shall serve as notice to FGTC of a local noise ordinance in Hillsborough County. No changes were made to the draft permit.

2. *Comment:* EPC recommends that the Department include a requirement in the air construction permit for FGTC to provide a Preventive Maintenance and Inspection Plan as part of the application for an air operation permit. The plan should address potential sources of odor and should be designed to minimize fugitive leaks. The plan would be reviewed and approved as part of the application for an operation permit.

Response: The Department notes that EPC will be the delegated permitting authority for reviewing FGTC's application for an air operation permit. EPC may request, review, and approve such a plan as part of the application process for the air operation permit. No changes were made to the draft permit.

On August 6th, the Department also attended a community meeting in Thonotosassa to answer questions regarding the proposed project. The meeting was hosted by U.S. Congressman Bilirakis. In addition to about a hundred local citizens, representatives from Florida Gas Transmission Company and the Federal Energy Regulatory Commission (FERC) also attended. The majority of concerns expressed at the meeting were

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directed to FERC and related to the siting of the compressor station. The following summarizes the main points discussed at this meeting that were directed to the Department.

1. *Question:* Has the Department considered alternative sites for this project?

Response: The Department has no authority to select specific sites for air construction permit projects. In general, local planning and zoning departments are responsible for the approval of project site selections with appropriate local input. However, for pipeline transmission projects, the Federal Energy Regulatory Commission is ultimately responsible for reviewing available project sites, gathering public input, and selecting a final suitable site.

2. *Question:* Has the Department made a final decision on the air construction permit application?

Response: At the time of the meeting, the Department had not issued a final action. However, the Department explained that it is at the end of the permitting process and expected to issue a final air construction permit very soon.

3. *Question:* Is the Department requiring the Best Available Control Technology?

Response: As discussed previously in this document, minor sources of air pollution are not subject to a determination of the Best Available Control Technology. The gas turbines for this project are subject to the federal New Source Performance Standards, which are adopted by reference in our state rules. However, the air construction permit includes a nitrogen oxides limit that is 1/7 of the federal standard and a sulfur dioxide limit that is equivalent to 1/25 of the federal standard. Based on the actual sulfur content of natural gas, actual sulfur dioxide emissions are expected to be less than 1/250 of the federal standard. In addition, the gas turbines utilize lean premix combustion technology, which has been determined to represent the Best Available Control Technology for large simple cycle gas turbine projects. Although the permitted emission levels are not as low as those for the larger units, actual performance tests indicate emissions of about 1/2 of the NOx permit limit and about 1/10 of the carbon monoxide limit.

4. *Question:* Has the Department considered electrically driven compressor engines?

Response: Although electrically driven compressor engines are a viable alternative for certain projects, so are gas turbines, which are used extensively in pipeline systems throughout the United States. Florida Gas Transmission Company indicated that the existing electrical transmission lines might not be suitable for the amount of energy required (about 5 MW per compressor engine). Florida Gas Transmission Company believes that gas turbines will provide greater reliability than electrically driven units will because they control the natural gas supply.

CONCLUSION

The final action of the Department is to issue the permit with only minor revisions to correct typographical errors. In addition, the permit expiration date was extended until August 1, 2003 due to account for the delay in issuance of the final permit.



Department of Environmental Protection

Jeb Bush
Governor

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

David B. Struhs
Secretary

PERMITTEE:

Florida Gas Transmission Company
P.O. Box 1188
Houston, TX 77251

Authorized Representative:

Mr. Rick Craig, V.P. of Southeastern Operations

Hillsborough Compressor Station No. 27
Air Permit No. 0571279-001-AC
Facility ID No. 0571279
SIC No. 4922
Permit Expires: May 1, 2003

PROJECT AND LOCATION

This permit authorizes the construction of a new compressor station to be located approximately two miles south of U.S. Highway 301 on County Road 579 near the city of Thonotosassa in Hillsborough County, Florida. The new station will consist of two 7222 bhp gas turbine compressor engines and miscellaneous support equipment including a 585 bhp emergency generator, storage tanks, buildings and ancillary equipment. The UTM coordinates are Zone 17, 372.16 km East, and 3102.41 km North.

STATEMENT OF BASIS

This air pollution construction permit is issued under the provisions of Chapter 403 of the Florida Statutes (F.S.), and Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.) and Title 40, Part 60 of the Code of Federal Regulations. The permittee is authorized to install the proposed equipment in accordance with the conditions of this permit and as described in the application, approved drawings, plans, and other documents on file with the Department.

CONTENTS

- Section 1. General Information
- Section 2. Administrative Requirements
- Section 3. Emissions Units Specific Conditions
- Section 4. Appendices

Howard L. Rhodes, Director
Division of Air Resources Management

(Date)

SECTION 1. GENERAL INFORMATION

FACILITY AND PROJECT DESCRIPTION

The proposed project will create a new compressor station in Hillsborough County for Florida Gas Transmission Company's existing natural gas pipeline. The new facility will consist of the following emissions units.

ID	Emission Unit Description
001	FGT Unit No. 2701: One 7200 bhp (ISO) gas turbine compressor engine firing natural gas (63 MMBtu/hour) consisting of a Cooper-Rolls Royce Model No. 501-KC7 DLE.
002	FGT Unit No. 2702: One 7200 bhp (ISO) gas turbine compressor engine firing natural gas (63 MMBtu/hour) consisting of a Cooper-Rolls Royce Model No. 501-KC7 DLE.
003	Miscellaneous Support Equipment: One 585 bhp emergency generator, storage tanks, buildings, and ancillary support equipment.

REGULATORY CLASSIFICATION

Title III: The facility is not classified as a major source of hazardous air pollutants (HAP).

Title IV: The facility has no units subject to the acid rain provisions of the Clean Air Act.

Title V: The facility is not classified as a Title V major source of air pollution.

PSD: The facility is not classified as a PSD major source of air pollution.

NSPS: The gas turbines are subject to the New Source Performance Standards of 40 CFR 60, Subpart GG.

RELEVANT DOCUMENTS

The documents listed below are not a part of this permit; however, they are specifically related to this permitting action and are on file with the Department.

- Permit application received on 01/28/02, complete.
- Draft permit package issued on March 4, 2002.

SECTION 2. ADMINISTRATIVE REQUIREMENTS

1. Permitting Authority: All documents related to applications for permits to construct or modify a PSD-major source shall be submitted to the Bureau of Air Regulation of the Florida Department of Environmental Protection (DEP) at 2600 Blair Stone Road (MS #5505), Tallahassee, Florida 32399-2400. All documents related to applications for permits to construct or modify minor sources or for operation permits shall be submitted to the Environmental Protection Commission of Hillsborough County at 1410 North 21st Street in Tampa, Florida 33605 and phone number 813/727-5530.
2. Compliance Authority: All documents related to compliance activities such as reports, tests, and notifications shall be submitted to the Environmental Protection Commission of Hillsborough County at 1410 North 21st Street in Tampa, Florida 33605 and phone number 813/727-5530. Copies of all such documents shall be submitted to the Department's Southwest District Office at 3804 Coconut Palm Drive in Tampa, Florida 33619-8218 and phone number 813/744-6100.
3. Appendices: The following Appendices are attached as part of this permit.
 - Appendix CF describes the format used to cite applicable rules and regulations as well as previous permitting actions.
 - Appendix FM describes the Custom Fuel Monitoring Plan for NSPS Gas Turbines.
 - Appendix GC specifies the general conditions applicable to all facilities. The general conditions are binding and enforceable pursuant to Chapter 403 of the Florida Statutes. [Rule 62-4.160, F.A.C.]
 - Appendix GG identifies the applicable NSPS requirements for gas turbines in 40 CFR 60, Subpart GG.
 - Appendix SC lists standard conditions applicable to air pollution sources compiled from Chapters 62-4, 62-210, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.).
4. Applicable Regulations, Forms and Application Procedures: Unless otherwise indicated in this permit, the construction and operation of the subject emissions unit shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of: Chapter 403 of the Florida Statutes (F.S.); Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.); and Title 40, Part 60 of the Code of Federal Regulations (CFR), adopted by reference in Rule 62-204.800, F.A.C. The terms used in this permit have specific meanings as defined in the applicable chapters of the Florida Administrative Code. The permittee shall use the applicable forms listed in Rule 62-210.900, F.A.C. and follow the application procedures in Chapter 62-4, F.A.C. Issuance of this permit does not relieve the permittee from compliance with any applicable federal, state, or local permitting or regulations. [Rules 62-204.800, 62-210.300 and 62-210.900, F.A.C.]
5. New or Additional Conditions: For good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time. [Rule 62-4.080, F.A.C.]
6. Modifications: No emissions unit or facility subject to this permit shall be constructed or modified without obtaining an air construction permit from the Department. Such permit shall be obtained prior to beginning construction or modification. [Rules 62-210.300(1) and 62-212.300(1)(a), F.A.C.]
7. Operation Permit: This permit authorizes construction of the permitted emissions units and initial operation to determine compliance with Department rules. The permittee shall apply for a minor source air operation permit at least sixty (60) days before the expiration of this construction permit, but no later than ninety (90) days after commencing operation. To apply for an operation permit, the applicant shall submit the appropriate application form, any required compliance test results, and such additional information as the Department may by law require. The application shall be submitted to the Environmental Protection Commission of Hillsborough County at the address listed above. [Rules 62-4.030, 62-4.050, and 62-4.220, F.A.C.]

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

A. FGT UNITS 2701 AND 2702, GAS TURBINE COMPRESSOR ENGINES

This section of the permit addresses the following modified emissions unit.

Emissions Unit Nos. 001 and 002 (FGT Nos. 2701 and 2702): Gas Turbine Compressor Engines

Description: Each new 7200 bhp (ISO) gas turbine compressor engine consists of a Cooper-Rolls Royce Model No. 501-KC7 DLE with lean premix combustor design.

Fuel: Each gas turbine fires pipeline-quality natural gas (SCC No 2-02-002-01) at a maximum firing rate of approximately 60,500 cubic feet per hour based on a heat content of 1040 BTU per SCF of gas.

Capacity: At 63 mmBTU per hour of heat input, each gas turbine produces approximately 7222 bhp (ISO). The gas turbines are intended to operate at or near capacity.

Controls: The lean premix combustor design minimizes NO_x emissions. The efficient combustion of natural gas at high temperatures minimizes emissions of CO, PM/PM₁₀, SO₂, and VOC.

Stack Parameters: When operating at capacity, exhaust gases exit a rectangular stack (7.33 feet by 5.50 feet) that is 61.2 feet tall at 960° F with a flow rate of approximately 98,200 acfm.

APPLICABLE STANDARDS AND REGULATIONS

1. NSPS Requirements: Each gas turbine shall comply with the New Source Performance Standards (NSPS) of Subpart GG in 40 CFR 60. The applicable NSPS requirements are provided in Appendix GG of this permit. The Department believes that the conditions in this section are at least as stringent, or more stringent than, the NSPS requirements of Subpart GG. [Rule 62-4.070(3), F.A.C.; 40 CFR 60, Subpart GG]

EQUIPMENT

2. New Gas Turbines (FGT Nos. 2701 and 2702): The permittee is authorized to install two nominal 7200 bhp (ISO) gas turbine compressor engines, each consisting of a Cooper-Rolls Royce Model No. 501-KC7 DLE. The permittee shall tune, operate and maintain each gas turbine's lean premix combustion system to reduce emissions of nitrogen oxides below the permitted limits. Ancillary equipment for each gas turbine includes the automated gas turbine control system, an inlet air filtration system, and a rectangular stack (7.33 feet by 7.50 feet) that is 61.2 feet tall. [Applicant Request; Design]

PERFORMANCE RESTRICTIONS

3. Permitted Capacities: The maximum heat input rate to each gas turbine shall not exceed 63 MMBtu per hour while producing approximately 7222 bhp (ISO) based on a compressor inlet air temperature of 59° F, 100% load, and a higher heating value (HHV) of 1040 BTU per SCF for natural gas. Heat input rates will vary depending upon gas turbine characteristics, load, and ambient conditions. For each gas turbine, the permittee shall provide manufacturer's performance curves (or equations) that correct for site conditions to the Permitting and Compliance Authorities within 45 days of completing the initial testing. Performance data shall be adjusted for the appropriate site conditions in accordance with the performance curves and/or equations on file with the Department. [Rule 62-210.200(PTE), F.A.C.]
4. Authorized Fuel: Each gas turbine shall fire only natural gas with a maximum of 10 grains of sulfur per 100 standard cubic feet of natural gas. [Applicant Request; Rule 62-210.200(PTE), F.A.C.]
5. Restricted Operation: The hours of operation for each gas turbine are not limited (8760 hours per year). Except for startup and shutdown, operation below 50% base load is prohibited. [Rules 62-4.070(3) and 62-210.200(PTE), F.A.C.]

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

A. FGT UNITS 2701 AND 2702, GAS TURBINE COMPRESSOR ENGINES

EMISSIONS STANDARDS

6. Emissions Standards: Emissions from each gas turbine shall not exceed the following limits for carbon monoxide (CO), nitrogen oxides (NOx), opacity, particulate matter (PM), sulfur dioxide (SO₂), and volatile organic compounds (VOC).

Pollutant	Standards	Equivalent Maximum Emissions ^f		Rule Basis ^g
		lb/hour	TPY	
CO ^a	50.0 ppmvd @ 15% O ₂	7.0	30.66	Synthetic minor source
NOx ^b	25.0 ppmvd @ 15% O ₂	5.7	24.97	Synthetic minor source 40 CFR 60.332
SO ₂ ^c	10.0 grains of sulfur per 100 SCF of gas	1.7	7.45	Synthetic minor source 40 CFR 60.333
Opacity ^d	10% opacity, 6-minute average	Not Applicable		Synthetic minor source
PM ^e	Good combustion practices (Factor: 0.0066 lb/mmBTU)	0.4	1.75	Synthetic minor source
VOC ^e	Good combustion practices (Factor: 10 ppmvd @ 15% O ₂)	1.5	6.57	Synthetic minor source

- a. The CO standards are based on the average of three test runs as determined by EPA Method 10.
- b. The NOx standards are based on the average of three test runs as determined EPA Method 20.
- c. The fuel sulfur specification is based on the maximum limit specified by Federal Energy Regulatory Commission (FERC) and effectively limits the potential SO₂ emissions. Expected fuel sulfur levels are less than 1 grain per 100 SCF of natural gas from the pipeline.
- d. The opacity standard is based on a 6-minute average, as determined by EPA Method 9.
- e. For both PM and VOC, the efficient combustion of clean fuels is indicated by compliance with opacity and CO standards. Equivalent maximum PM emissions are based on AP-42, Table 3.1-2a. Equivalent maximum VOC emissions were based on available vendor data. No testing required.
- f. Equivalent maximum emissions are based on the maximum expected emissions, permitted capacity, a compressor inlet air temperature of 59° F, and 8760 hours of operation per year. For comparison purposes, the permittee shall provide a reference table with the initial compliance test report of mass emission rates versus the compressor inlet temperatures. Each test report shall include measured mass emission rates for CO, NOx and SO₂. Mass emission rates for SO₂ shall be calculated based on actual fuel sulfur content and fuel flow rate. For tests conducted at 59° F or greater, measured mass emission rates shall be compared to the equivalent maximum emissions above. For tests conducted below 59° F, measured mass emission rates shall be compared to the tabled mass emission rates provided by the manufacturer based on compressor inlet temperatures.
- g. The emissions standards of this permit ensure that the facility remains a minor source of air pollution with respect to both PSD and Title V air permit programs.

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

A. FGT UNITS 2701 AND 2702, GAS TURBINE COMPRESSOR ENGINES

EMISSIONS PERFORMANCE TESTING

7. Test Methods: Required tests shall be performed in accordance with the following reference methods.

Method	Description of Method and Comments
1-4	Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content
9	Visual Determination of the Opacity of Emissions from Stationary Sources
10	Determination of Carbon Monoxide Emissions from Stationary Sources {Note: The method shall be based on a continuous sampling train.}
19	Determination of Sulfur Dioxide Removal Efficiency and Particulate Matter, Sulfur Dioxide, and Nitrogen Oxides Emission Rates (Optional F-factor method may be used to determine flow rate and gas analysis to calculate mass emissions in lieu of Methods 1-4.)
20	Determination of Nitrogen Oxides, Sulfur Dioxide and Diluent Emissions from Gas Turbines

Tests shall also be conducted in accordance with the requirements specified in Section 4, Appendix SC of this permit. The above methods are described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used for compliance testing unless prior written approval is received from the administrator of the Department's Emissions Monitoring Section in accordance with an alternate sampling procedure pursuant to 62-297.620, F.A.C. [Rules 62-204.800 and 62-297.100, F.A.C.; 40 CFR 60, Appendix A]

8. Initial Tests: Each gas turbine shall be tested to demonstrate initial compliance with the emission standards for CO, NOx, and visible emissions. The initial tests shall be conducted within 60 days after achieving at least 90% of the maximum permitted capacity, but not later than 180 days after initial operation of the gas turbine. The initial NOx performance tests shall be conducted at approximately four evenly spaced points between the minimum normal operating load and 100% of peak load. Each of the three low-load NOx performance tests shall consist of three, 20-minute test runs. The peak load NOx performance test shall consist of three, 1-hour test runs. The CO performance tests shall be conducted concurrently with the NOx performance tests at peak load. SO2 emissions shall be calculated based on fuel flow and vendor analysis of fuel sulfur content. [Rule 62-297.310(7)(a)1, F.A.C.; 40 CFR 60.8 and 60.335]
9. Annual Tests: During each federal fiscal year (October 1 - September 30), each gas turbine shall be tested to demonstrate compliance with the visible emissions standard. In addition to the test results, each report shall include the following: a report on any non-routine maintenance conducted on each unit, a vendor analysis of the fuel sulfur content, and a general description of the activities and operation of this facility since the last test. [Rule 62-297.310(7)(a)4, F.A.C.]
10. Tests Prior to Renewal of Operation Permit: During the 12-month period prior to renewal of the air operation permit, each gas turbine shall be tested to demonstrate compliance with the emission standards for CO, NOx, and visible emissions. CO and NOx emissions shall be tested concurrently at permitted capacity. SO2 emissions shall be calculated based on fuel flow and vendor analysis of fuel sulfur content. [Rule 62-297.310(7)(a)3, F.A.C.]
11. Test Notification: The permittee shall notify the Compliance Authority in writing at least 30 days prior to any initial NSPS performance tests and at least 15 days prior to any other required tests. [Rule 62-297.310(7)(a)9, F.A.C.; 40 CFR 60.7 and, 60.8]

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

A. FGT UNITS 2701 AND 2702, GAS TURBINE COMPRESSOR ENGINES

RECORDS AND REPORTS

12. Test Reports: The permittee shall prepare and submit reports for all required tests in accordance with the requirements specified in Section 4, Appendix SC of this permit. In addition, NOx emissions shall be corrected to ISO ambient atmospheric conditions and compared to the NSPS Subpart GG standard identified in Appendix GG of this permit for each required test. For each run, the test report shall also indicate the natural gas firing rate (cubic feet per hour), heat input rate (MMBtu per hour), the power output (bhp), percent base load, and the inlet compressor temperature. [Rule 62-297.310(8), F.A.C.; 40 CFR 60.334]
13. Custom Fuel Monitoring Schedule: In lieu of the NSPS fuel monitoring requirements of 40 CFR 60.334 of Subpart GG, the Department approves the custom fuel-monitoring schedule specified in Appendix FM of this permit. [Rule 62-4.070(3), F.A.C.; 40 CFR 60.334]
14. Operational Data: Using the automated gas turbine control system, the permittee shall monitor and record heat input (MMBtu), power output (bhp), and hours of operation for each gas turbine. Within the 10 days of a request by the Department or the Compliance Authority, the permittee shall be able to summarize the following information: average heat input (MMBtu per hour); average power output (bhp); and hours of gas turbine operation. This information shall also be used for submittal of the required Annual Operating Report. [Rule 62-4.070(3), F.A.C.]

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

B. MISCELLANEOUS SUPPORT EQUIPMENT

This permit recognizes the following additional activities at this facility.

Emissions Unit No. 003: Miscellaneous Support Equipment	
004	Miscellaneous support equipment including: <ul style="list-style-type: none">• One Waukesha Model No. HG24GL reciprocating internal combustion engine and emergency generator (585 bhp) fired exclusively with natural gas and identified as FGT No. GEN01;• One 4200 gallon vertical fixed roof pipeline condensate storage tank;• One 4200 gallon vertical oily water storage tank; and• Miscellaneous buildings and pipeline equipment such as pumps, valves, flanges, etc.

Note: The emergency generator is expected to operate much less than 500 hours per year.

SECTION 4. APPENDICES
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- Appendix CF. Citation Format
- Appendix FM. Custom Fuel Monitoring Plan for NSPS Gas Turbines
- Appendix GC. General Conditions
- Appendix GG. NSPS Subpart GG Requirements for Gas Turbines
- Appendix SC. Standard Conditions

SECTION 4. APPENDIX CF
CITATION FORMAT

The following examples illustrate the format used in the permit to identify applicable permitting actions and regulations.

REFERENCES TO PREVIOUS PERMITTING ACTIONS

Old Permit Numbers

Example: Permit No. AC50-123456 or Air Permit No. AO50-123456

Where: “AC” identifies the permit as an Air Construction Permit
“AO” identifies the permit as an Air Operation Permit
“123456” identifies the specific permit project number

New Permit Numbers

Example: Permit Nos. 099-2222-001-AC, 099-2222-001-AF, 099-2222-001-AO, or 099-2222-001-AV

Where: “099” represents the specific county ID number in which the project is located
“2222” represents the specific facility ID number
“001” identifies the specific permit project
“AC” identifies the permit as an air construction permit
“AF” identifies the permit as a minor federally enforceable state operation permit
“AO” identifies the permit as a minor source air operation permit
“AV” identifies the permit as a Title V Major Source Air Operation Permit

PSD Permit Numbers

Example: Permit No. PSD-FL-317

Where: “PSD” means issued pursuant to the Prevention of Significant Deterioration of Air Quality
“FL” means that the permit was issued by the State of Florida
“317” identifies the specific permit project

RULE CITATION FORMATS

Florida Administrative Code (F.A.C.)

Example: [Rule 62-213.205, F.A.C.]

Means: Title 62, Chapter 213, Rule 205 of the Florida Administrative Code

Code of Federal Regulations (CFR)

Example: [40 CFR 60.7]

Means: Title 40, Part 60, Section 7

SECTION 4. APPENDIX GC

CUSTOM FUEL MONITORING PLAN FOR NSPS GAS TURBINES

Custom Fuel Monitoring Schedule: The Department approves the following custom fuel-monitoring schedule in lieu of the NSPS fuel monitoring requirements in 40 CFR 60.334 of Subpart GG for the gas turbines affected by this project.

1. Because natural gas is the exclusive fuel for the gas turbine and contains negligible amounts of nitrogen, no monitoring of the fuel nitrogen content is required.
2. Fuel sulfur monitoring shall be performed in accordance with the following requirements:
 - a. The natural gas shall be sampled and analyzed for the sulfur content as determined by ASTM methods D4084-82, D3246-81 or more recent versions.
 - b. After first fire in the gas turbine, fuel sulfur monitoring shall be conducted at least twice each month. If this monitoring indicates little variability and compliance with the fuel sulfur limit of this permit for a period of six months, monitoring shall be reduced to once each calendar quarter. If this monitoring indicates little variability and compliance with the fuel sulfur limit of this permit for six calendar quarters, monitoring shall be reduced to twice each year (once each during the first and third calendar quarters).
 - c. The permittee shall provide written notification to the Compliance Authority prior to reducing the frequency of monitoring in accordance with the above custom schedule. The notification shall include the results of the previous fuel sulfur analyses, the current frequency of monitoring, and the future frequency of monitoring.
3. This custom fuel-monitoring plan shall be reevaluated if there is a change in the fuel supply, a substantial change in the fuel quality, or any required monitoring indicates failure to comply with the fuel sulfur limit of this permit. For such cases, fuel sulfur monitoring shall resume on a weekly basis while the Department reevaluates the monitoring schedule.

[Rule 62-4.070(3); 40 CFR 60.334]

SECTION 4. APPENDIX GC
GENERAL CONDITIONS

The permittee shall comply with the following general conditions from Rule 62-4.160, F.A.C.

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey and vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.
4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.
7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:
 - a. Have access to and copy and records that must be kept under the conditions of the permit;
 - b. Inspect the facility, equipment, practices, or operations regulated or required under this permit, and,
 - c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:
 - a. A description of and cause of non-compliance; and
 - b. The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, Florida

SECTION 4. APPENDIX GC
GENERAL CONDITIONS

Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.
11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.
12. This permit or a copy thereof shall be kept at the work site of the permitted activity.
13. This permit also constitutes:
 - a. Determination of Best Available Control Technology (NA);
 - b. Determination of Prevention of Significant Deterioration (NA); and
 - c. Compliance with New Source Performance Standards (X).
14. The permittee shall comply with the following:
 - a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
 - b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application or this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
 - c. Records of monitoring information shall include:
 - 1) The date, exact place, and time of sampling or measurements;
 - 2) The person responsible for performing the sampling or measurements;
 - 3) The dates analyses were performed;
 - 4) The person responsible for performing the analyses;
 - 5) The analytical techniques or methods used; and
 - 6) The results of such analyses.
15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

SECTION 4. APPENDIX GG

NSPS SUBPART GG REQUIREMENTS FOR GAS TURBINES

The following emissions unit is subject to the applicable requirements of Subpart A (General Provisions) and Subpart GG (Stationary Gas Turbines) established as New Source Performance Standards in 40 CFR 60 and adopted by reference in Rule 62-204.800(7)(b), F.A.C.

Table with 2 columns: ID (001, 002) and Description (FGT Unit No. 2701, 2702: One 7200 bhp (ISO) gas turbine compressor engine firing natural gas (63 MMBtu/hour); Cooper-Rolls Royce Model No. 501-KC7 DLE)

NSPS GENERAL PROVISIONS

In addition to the specific conditions of the permit and NSPS Subpart GG, the emissions units are subject to the applicable General Provisions of the New Source Performance Standards including 40 CFR 60.7 (Notification and Record Keeping), 40 CFR 60.8 (Performance Tests), 40 CFR 60.11 (Compliance with Standards and Maintenance Requirements), 40 CFR 60.12 (Circumvention), 40 CFR 60.13 (Monitoring Requirements), and 40 CFR 60.19 (General Notification and Reporting Requirements). The General Provisions are not included in this permit, but can be obtained from the Department upon request.

40 CFR 60, SUBPART GG
STANDARDS OF PERFORMANCE FOR STATIONARY GAS TURBINES

{Note: Each gas turbine shall comply with all applicable requirements of 40 CFR 60, Subpart GG adopted by reference in Rule 62-204.800(7)(b), F.A.C. Inapplicable provisions have been deleted in the following conditions, but the numbering of the original rules has been preserved for ease of reference. The term "Administrator" when used in 40 CFR 60 shall mean the Department's Secretary or the Secretary's designee. Department notes and requirements related to the Subpart GG requirements are shown in bold immediately following the section to which they refer. The rule basis for the Department requirements specified below is Rule 62-4.070(3), F.A.C.}

Section 60.330 Applicability and designation of affected facility.

- (a) The provisions of this subpart are applicable to the following affected facilities: All stationary gas turbines with a heat input at peak load equal to or greater than 10.7 gigajoules per hour (10 million Btu/hour), based on the lower heating value of the fuel fired.

Section 60.331 Definitions.

As used in this subpart, all terms not defined herein shall have the meaning given them in the Act and in subpart A of this part.

- (g) ISO standard day conditions means 288 degrees Kelvin, 60 percent relative humidity and 101.3 kilopascals pressure.
(i) Peak load means 100 percent of the manufacturer's design capacity of the gas turbine at ISO standard day conditions.
(j) Base load means the load level at which a gas turbine is normally operated.

Section 60.332 Standard for nitrogen oxides.

- (a) On and after the date of the performance test required by Section 60.8 is completed, every owner or operator subject to the provisions of this subpart as specified in paragraphs (c) of this section shall comply with:

- (2) No owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any stationary gas turbine, any gases which contain nitrogen oxides in excess of:

(14.4)
STD = 0.0150 * (14.4 / Y) + F

where:

STD = allowable NOx emissions (percent by volume at 15 percent oxygen and on a dry basis).

SECTION 4. APPENDIX GG

NSPS SUBPART GG REQUIREMENTS FOR GAS TURBINES

Y = manufacturer's rated heat rate at manufacturer's rated load (kilojoules per watt hour) or, actual measured heat rate based on lower heating value of fuel as measured at actual peak load for the facility. The value of Y shall not exceed 14.4 kilojoules per watt-hour.

F = NOx emission allowance for fuel-bound nitrogen as defined in paragraph (a)(3) of this section.

(3) F shall be defined according to the nitrogen content of the fuel as follows:

Fuel-bound nitrogen (percent by weight)	F (NOx percent by volume)
$N \leq 0.015$	0
$0.015 < N \leq 0.1$	$0.04(N)$
$0.1 < N \leq 0.25$	$0.004 + 0.0067(N - 0.1)$
$N > 0.25$	0.005

where: N=the nitrogen content of the fuel (percent by weight).

Department requirement: When firing natural gas, the "F" value shall be assumed to be 0.

{Note: The "Y" value when firing natural gas as provided by the manufacturer is approximately "12.35". The equivalent emission standard is 175 ppmvd at 15% oxygen. The emissions standards in Section 3 of this permit are much more stringent than this requirement.}

(c) Stationary gas turbines with a heat input at peak load equal to or greater than 10.7 gigajoules per hour (10 million Btu/hour) but less than or equal to 107.2 gigajoules per hour (100 million Btu/hour) based on the lower heating value of the fuel fired, shall comply with the provisions of paragraph (a)(2) of this section.

Section 60.333 Standard for sulfur dioxide.

On and after the date on which the performance test required to be conducted by Section 60.8 is completed, every owner or operator subject to the provision of this subpart shall comply with:

(b) No owner or operator subject to the provisions of this subpart shall burn in any stationary gas turbine any fuel which contains sulfur in excess of 0.8 percent by weight.

Section 60.334 Monitoring of operations.

(b) The owner or operator of any stationary gas turbine subject to the provisions of this subpart shall monitor sulfur content and nitrogen content of the fuel being fired in the turbine. The frequency of determination of these values shall be as follows:

(2) If the turbine is supplied its fuel without intermediate bulk storage the values shall be determined and recorded daily. Owners, operators or fuel vendors may develop custom schedules for determination of the values based on the design and operation of the affected facility and the characteristics of the fuel supply. These custom schedules shall be substantiated with data and must be approved by the Administrator before they can be used to comply with paragraph (b) of this section.

Department requirement: The requirement to monitor the nitrogen content of pipeline quality natural gas fired is waived because natural gas is the exclusive fuel and contains negligible amounts of nitrogen. For purposes of complying with the sulfur content monitoring requirements of this rule, the permittee shall comply with the custom fuel monitoring schedule specified in the Section 3 of the permit.

{Note: This is consistent with guidance from EPA Region 4 on custom fuel monitoring.}

(c) For the purpose of reports required under Section 60.7(c), periods of excess emissions that shall be reported are defined as follows:

(1) Nitrogen oxides. Any one-hour period during which the average water-to-fuel ratio, as measured by the continuous monitoring system, falls below the water-to-fuel ratio determined to demonstrate compliance with Section 60.332 by the performance test required in Section 60.8 or any period during which the fuel-bound nitrogen of the fuel is greater than the maximum nitrogen content allowed by the fuel-bound nitrogen allowance used during the performance test required in Section 60.8. Each report shall include the average water-to-fuel ratio, average fuel

SECTION 4. APPENDIX GG
NSPS SUBPART GG REQUIREMENTS FOR GAS TURBINES

consumption, ambient conditions, gas turbine load, and nitrogen content of the fuel during the period of excess emissions, and the graphs or figures developed under Section 60.335(a).

{Note: The excess NO_x emissions reporting requirements do not apply. The gas turbine uses dry low-NO_x combustion technology and not wet injection to control NO_x emissions. Also, NO_x emissions due to fuel bound nitrogen are considered negligible because natural gas is the exclusive fuel and contains little nitrogen.}

- (2) Sulfur dioxide. Any daily period during which the sulfur content of the fuel being fired in the gas turbine exceeds 0.8 percent.

Department requirement: In accordance with the custom fuel monitoring schedule, any period between two consecutive fuel sulfur analyses shall be reported as excess emissions if the results of the second analysis indicates failure to comply with the fuel sulfur limit of the permit.

Section 60.335 Test methods and procedures.

- (a) To compute the nitrogen oxides emissions, the owner or operator shall use analytical methods and procedures that are accurate to within 5 percent and are approved by the Administrator to determine the nitrogen content of the fuel being fired.
- (b) In conducting the performance tests required in Section 60.8, the owner or operator shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided for in Section 60.8(b). Acceptable alternative methods and procedures are given in paragraph (f) of this section.
- (c) The owner or operator shall determine compliance with the nitrogen oxides and sulfur dioxide standards in Sections 60.332 and 60.333(a) as follows:

- (1) The nitrogen oxides emission rate (NO_x) shall be computed for each run using the following equation:

$$\text{NO}_x = (\text{NO}_{x0}) (\text{Pr}/\text{Po})^{0.5} e^{19(\text{Ho} - 0.00633)} (288^\circ\text{K}/\text{Ta})^{1.53}$$

where:

NO_x = emission rate of NO_x at 15 percent O₂ and ISO standard ambient conditions, volume percent.

NO_{x0} = observed NO_x concentration, ppm by volume.

Pr = reference combustor inlet absolute pressure at 101.3 kilopascals ambient pressure, mm Hg.

Po = observed combustor inlet absolute pressure at test, mm Hg.

Ho = observed humidity of ambient air, g H₂O/g air.

e = transcendental constant, 2.718.

Ta = ambient temperature, °K.

Department requirement: The permittee is required to correct NO_x emissions to ISO ambient atmospheric conditions for each required emissions performance test and compare to the NO_x standard specified in 40 CFR 60.332.

- (2) The monitoring device of Section 60.334(a) shall be used to determine the fuel consumption and the water-to-fuel ratio necessary to comply with Section 60.332 at 30, 50, 75, and 100 percent of peak load or at four points in the normal operating range of the gas turbine, including the minimum point in the range and peak load. All loads shall be corrected to ISO conditions using the appropriate equations supplied by the manufacturer.

Department requirement: The initial NO_x performance tests shall be conducted at approximately four evenly spaced points between the minimum normal operating load and 100% of peak load.

{Note: The dry low-NO_x controls are only effective above a minimum load, which will be identified during initial testing.}

SECTION 4. APPENDIX GG

NSPS SUBPART GG REQUIREMENTS FOR GAS TURBINES

- (3) Method 20 shall be used to determine the nitrogen oxides, sulfur dioxide, and oxygen concentrations. The span values shall be 300 ppm of nitrogen oxide and 21 percent oxygen. The NOx emissions shall be determined at each of the load conditions specified in paragraph (c)(2) of this section.

Department requirement: The span value shall be no greater than 75 ppm of nitrogen oxides due to the low NOx emission levels of the gas turbine.

- (d) The owner or operator shall determine compliance with the sulfur content standard in Section 60.333(b) as follows: ASTM D 2880-71 shall be used to determine the sulfur content of liquid fuels and ASTM D 1072-80, D 3031-81, D 4084-82, or D 3246-81 shall be used for the sulfur content of gaseous fuels (incorporated by reference--see Section 60.17). The applicable ranges of some ASTM methods mentioned above are not adequate to measure the levels of sulfur in some fuel gases. Dilution of samples before analysis (with verification of the dilution ratio) may be used, subject to the approval of the Administrator.

Department requirement: The natural gas shall be sampled and analyzed for the sulfur content as determined by ASTM methods D4084-82, D3246-81 or more recent versions.

- (e) To meet the requirements of Section 60.334(b), the owner or operator shall use the methods specified in paragraphs (a) and (d) of this section to determine the nitrogen and sulfur contents of the fuel being burned. The analysis may be performed by the owner or operator, a service contractor retained by the owner or operator, the fuel vendor, or any other qualified agency.

{Note: The fuel analysis requirements of the permit meet or exceed the requirements of this rule and will ensure compliance with this rule.}

SECTION 4. APPENDIX SC
STANDARD CONDITIONS

{Permitting Note: The following conditions apply to all emissions units and activities at this facility.}

EMISSIONS AND CONTROLS

1. **Plant Operation - Problems:** If temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by fire, wind or other cause, the permittee shall notify each Compliance Authority as soon as possible, but at least within one working day, excluding weekends and holidays. The notification shall include: pertinent information as to the cause of the problem; steps being taken to correct the problem and prevent future recurrence; and, where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with the conditions of this permit or the regulations. [Rule 62-4.130, F.A.C.]
2. **Circumvention:** The permittee shall not circumvent the air pollution control equipment or allow the emission of air pollutants without this equipment operating properly. [Rule 62-210.650, F.A.C.]
3. **Excess Emissions Allowed:** Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.]
4. **Excess Emissions Prohibited:** Excess emissions caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure that may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]
5. **Excess Emissions - Notification:** In case of excess emissions resulting from malfunctions, the permittee shall notify the Department or the appropriate Local Program in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department. [Rule 62-210.700(6), F.A.C.]
6. **VOC or OS Emissions:** No person shall store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds or organic solvents without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department. [Rule 62-296.320(1), F.A.C.]
7. **Objectionable Odor Prohibited:** No person shall cause, suffer, allow or permit the discharge of air pollutants, which cause or contribute to an objectionable odor. An "objectionable odor" means any odor present in the outdoor atmosphere which by itself or in combination with other odors, is or may be harmful or injurious to human health or welfare, which unreasonably interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance. [Rules 62-296.320(2) and 62-210.200(203), F.A.C.]
8. **General Visible Emissions:** No person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity equal to or greater than 20 percent opacity. [Rule 62-296.320(4)(b)1, F.A.C.]
9. **Unconfined Particulate Emissions:** During the construction period, unconfined particulate matter emissions shall be minimized by dust suppressing techniques such as covering and/or application of water or chemicals to the affected areas, as necessary. [Rule 62-296.320(4)(c), F.A.C.]

TESTING REQUIREMENTS

10. **Required Number of Test Runs:** For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured; provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five-day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five-day period allowed for the test, the Secretary or his or her designee may accept the results of two complete runs as proof of compliance, provided that the arithmetic mean of the two complete runs is at least 20% below the allowable emission limiting standard. [Rule 62-297.310(1), F.A.C.]

SECTION 4. APPENDIX SC
STANDARD CONDITIONS

11. Operating Rate During Testing: Testing of emissions shall be conducted with the emissions unit operating at permitted capacity. Permitted capacity is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impractical to test at permitted capacity, an emissions unit may be tested at less than the maximum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test rate until a new test is conducted. Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. [Rule 62-297.310(2), F.A.C.]
12. Calculation of Emission Rate: For each emissions performance test, the indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the three separate test runs unless otherwise specified in a particular test method or applicable rule. [Rule 62-297.310(3), F.A.C.]
13. Test Procedures: Tests shall be conducted in accordance with all applicable requirements of Chapter 62-297, F.A.C.
 - a. Required Sampling Time. Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes. The minimum observation period for a visible emissions compliance test shall be thirty (30) minutes. The observation period shall include the period during which the highest opacity can reasonably be expected to occur.
 - b. Minimum Sample Volume. Unless otherwise specified in the applicable rule or test method, the minimum sample volume per run shall be 25 dry standard cubic feet.
 - c. Calibration of Sampling Equipment. Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1, F.A.C.[Rule 62-297.310(4), F.A.C.]
14. Determination of Process Variables
 - a. Required Equipment. The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.
 - b. Accuracy of Equipment. Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.[Rule 62-297.310(5), F.A.C.]
15. Sampling Facilities: The permittee shall install permanent stack sampling ports and provide sampling facilities that meet the requirements of Rule 62-297.310(6), F.A.C.
16. Test Notification: The owner or operator shall notify the Department, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator. [Rule 62-297.310(7)(a)9, F.A.C.]
17. Special Compliance Tests: When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it shall require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department. [Rule 62-297.310(7)(b), F.A.C.]
18. Test Reports: The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department on the results of each such test. The required test report shall be filed with the Department as soon as practical but no later than 45 days after the last sampling run of each test is completed. The test report shall provide

SECTION 4. APPENDIX SC
STANDARD CONDITIONS

sufficient detail on the emissions unit tested and the test procedures used to allow the Department to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the following information:

1. The type, location, and designation of the emissions unit tested.
2. The facility at which the emissions unit is located.
3. The owner or operator of the emissions unit.
4. The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.
5. The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.
6. The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.
7. A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.
8. The date, starting time and duration of each sampling run.
9. The test procedures used, including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.
10. The number of points sampled and configuration and location of the sampling plane.
11. For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.
12. The type, manufacturer and configuration of the sampling equipment used.
13. Data related to the required calibration of the test equipment.
14. Data on the identification, processing and weights of all filters used.
15. Data on the types and amounts of any chemical solutions used.
16. Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.
17. The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.
18. All measured and calculated data required to be determined by each applicable test procedure for each run.
19. The detailed calculations for one run that relate the collected data to the calculated emission rate.
20. The applicable emission standard, and the resulting maximum allowable emission rate for the emissions unit, plus the test result in the same form and unit of measure.
21. A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department or its agent, the person who conducts the test shall provide the certification with respect to the test procedures used. The owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge.

RECORDS AND REPORTS

19. Records Retention: All measurements, records, and other data required by this permit shall be documented in a permanent, legible format and retained for at least five (5) years following the date on which such measurements, records, or data are recorded. Records shall be made available to the Department upon request. [Rules 62-4.160(14) and 62-213.440(1)(b)2, F.A.C.]
20. Annual Operating Report: The permittee shall submit an annual report that summarizes the actual operating rates and emissions from this facility. Annual operating reports shall be submitted to the Compliance Authority by March 1st of each year. [Rule 62-210.370(2), F.A.C.]

Florida Department of Environmental Protection

Memorandum

TO: Howard Rhodes

THRU: Clair Fancy *ay 8/9*
Al Linero

FROM: Jeff Koerner *JK*

DATE: August 9, 2002

SUBJECT: Final Air Construction Permit No. 0571279-001-AC
Florida Gas Transmission Company
New Compressor Station No. 27, Hillsborough County
Phase V Modifications

The Final Permit for this project is attached for your approval and signature, which authorizes the construction of a new compressor station for Florida Gas Transmission Company's existing natural gas pipeline. It will consist of two 7200 bhp gas turbine compressor engines and miscellaneous support equipment including a 585 bhp emergency generator, storage tanks, buildings and ancillary equipment. The compressor engines and emergency generator fire only natural gas. The new facility will be located approximately two miles south of U.S. Highway 301 on County Road 579 near the city of Thonotosassa in Hillsborough County, Florida. Although the project is minor with respect to PSD, Florida Gas Transmission Company requested that the Tallahassee office process the application for consistency between the Phase V projects.

The Department distributed an "Intent to Issue Permit" package on March 4, 2002. The applicant published the "Public Notice of Intent to Issue" in The Tampa Tribune on March 12, 2002. An extension of time in which to file a petition was filed and later withdrawn. A petition was filed and an administrative hearing held on July 18th and 19th. Before presenting a case, the petitioners withdrew their petition. The hearing officer closed the administrative case on July 23, 2002.

The Department attended an informational meeting held by U.S. Congressman Bilirakis on August 6th. The majority of concerns expressed at the meeting were directed to the Federal Energy Regulatory Commission (FERC) and were related to the siting of the compressor station. Many of the local citizens were trying to get additional time to review alternative sites with FERC that better fit their community development plan. Congressman Bilirakis tried to facilitate this process. At the meeting, I explained that the Department was at the end of its permitting process and would likely issue an air construction permit shortly. Before I left the meeting, I again explained to Congressman Bilirakis that Florida Gas Transmission Company had met the requirements for a minor source permit and that our process was at its end. We would likely issue the final permit within a week or so.

The permit processing clock was stopped due to the administrative proceedings. I recommend your approval of the attached Final Permit for this project.

Attachments

CHF/AAL/jfk



Jeb Bush
Governor

Department of Environmental Protection

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

David B. Struhs
Secretary

September 9, 2002

The Honorable Michael Bilirakis
Representative in Congress
House of Representatives
Washington, D. C. 20515-0909

Re: Florida Gas Transmission's Compressor Station No. 27
Thonotosassa, Florida
Final Air Construction Permit

Dear Mr. Bilirakis:

I appreciate your recent letter thanking me for attending the public forum in Thonotosassa.

As mentioned at the public meeting, the Department is not directly involved in the site selection process. For a typical project, an applicant's selected site must be approved through the zoning process with input from the public and local authorities. For gas transmission projects, site selection is ultimately approved by the Federal Energy Regulatory Commission.

We are required to act in a timely manner upon requests for air construction permits. Florida Gas Transmission Company provided us with reasonable assurance that the proposed project will meet all state and federal requirements regarding air pollution. An administrative hearing was held on July 18th, after which the petitioners withdrew their challenge. Accordingly, a final air construction permit was issued on August 12th.

Please be assured that the Department will promptly review any air permit application by the Florida Gas Transmission Company for construction at a different site. If you have any questions, please contact me at 850/921-9536.

Sincerely,

Jeffery F. Koerner
New Source Review Section

"More Protection, Less Process"

Printed on recycled paper.

STATE OF FLORIDA
DIVISION OF ADMINISTRATIVE HEARINGS

FILED
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DIVISION OF
ADMINISTRATIVE
HEARINGS

ELIZABETH A. ENLUND and
DAVID A. PICKERING,

Petitioners,

Vs.

DOAH Case No.: 02-1678 *SLJ*

FLORIDA GAS TRANSMISSION
COMPANY and DEPARTMENT OF
ENVIRONMENTAL PROTECTION,

Respondents.

PETITIONERS' PROPOSED PRE-HEARING STATEMENT

Here comes the Petitioners, Elizabeth A. Enlund and David A. Pickering, to serve and file the Petitioners' Proposed Pre-Hearing Statement pursuant to the requirements of the "Order Of Pre-Hearing Instructions" made by the Honorable J. Lawrence Johnston, and dated May 10th, 2002.

(a) A concise statement of the nature of the controversy:

That the site parameters (cultural, topographical and geological) and other essential data including, but not limited to, altitude at stack base and accurate Potential To Emit NOx data were not submitted to FDEP during the permitting process nor made available to the public as required by 40 CFR 51.230(f), which mandates that FDEP make available to the public, including the petitioners, data on the nature and amounts of emissions as reported and as *correlated with any applicable emission standards* or limitations.;

That Respondent FGT has misrepresented the amount of Potential N0x emissions from the proposed Compressor Station 27 (CS 27 hereafter) in the CS 27 P5 Final State Application and the FGT 27V Draft Permit No. 0571279-001-AC (Draft Permit hereafter), as well as in the Annual Operating Reports and Compliance Tests from similar FGT facilities;

That misrepresentation is accomplished by the use of unauthorized and unnoticed amendments to 40 CFR 60.335 (c)(1), i.e. the equation to adjust the raw N0x data to ISO conditions.

That the Potential To Emit (PTE) must be based upon the maximum capacity of an emissions unit or facility to emit a pollutant under its physical and operational design, pursuant to 62-210.200(203), F.A.C., and thus the PTE must be based upon the largest feasible emissions estimate available to Respondents FGT and FDEP at the time the Draft Permit was written. Such data is derived from the August 2001 Compliance Test Report for an identical model, a Cooper-Rolls 501 KC7-DLE engine (unit 2602), at the FGT facility in Lecanto, Florida.

That therefore this and other calculations indicate that CS 27 is in fact a Title V Major Source for N0x emissions (100 tons per year) as defined by the U.S. Clean Air Act, 42 USC.s 7401 et seq., and as defined pursuant to 62-213.420(3)(c) 1., F.A.C., "Major Source Thresholds," and 62-210.200(157), F.A.C., and 62-210.200(159)(b), F.A.C.;

That Respondent FGT, an ENRON affiliate, has engaged in a pattern of misrepresentation in past actions with the FDEP, the EPA and/or FERC, and thus is subject to provisions in 62-4.070(5), F.A.C., requiring that the department *shall*

demand strict proof, rather than reasonable assurance, that emissions at CS 27 will not exceed the minor source threshold as claimed in the Draft Permit;

That Respondent FGT has circumvented the Florida State Implementation Plan by a failure to submit accurate site and Potential to Emit data and thereby violates 40 CFR 51.230(d), (e) and (f), as well as 403.0623, F.S., "Environmental data; quality assurance."

That such misrepresentation and circumvention violates the rights of the residents of Thonotosassa, including the Petitioners, pursuant to 62-210.350, F.A.C., "Public Notice and Comment," and forecloses any meaningful public review and opportunity for comment as mandated under 62-210.300 (2) (b) 3., F.A.C.;

That Petitioners have a right to clean air and quiet enjoyment of their home and property. Petitioners' lifestyle and work provides them with the necessity to be outdoors much of the time. Petitioners routinely keep the windows open at night and live without air conditioning, making a threat to air quality material to their safety and health. The value of their property will also be adversely affected by a noise and pollution nuisance approximately 250' away.

(b) A brief, general statement of each party's position:

Petitioners maintain that the Florida Department of Environmental Protection should not issue an Air Construction Permit to Florida Gas Transmission Company for the site on C.R. 579 in Thonotosassa, FL. Petitioners maintain that relevant site parameters and the amount of emissions from the proposed facility have not been adequately considered. As such, Petitioners maintain the health, safety and

welfare of the residents of Thonotosassa, including the Petitioners will be seriously impacted if the Air Construction Permit is issued for the site on C.R. 579 in Thonotosassa, FL.

(c) A list of all exhibits to be offered at the hearing:

1. Evidence pertinent to the probability that FGT will operate the CS 27 turbines above manufacturer's specifications for fuel throughput and/or heat input without applying for a new air construction permit, thus denying Petitioners the right of meaningful review and participation in the permit process:
 - a) Letter from Clayton Roesler, FGT, to Richard Kirby dated June 26, 1997 concerning replacement engines 3001, 3002, and 3003.
 - b) FDEP Memorandum to Jerry Campbell, EPCHC, Jeff Koerner, PBCPHU, Jerry Kissel, SWD, from Al Linero, Administrator NSR Section, dated April 30, 1997.
 - c) Draft letter from A.A. Linero, NSR, requesting reasonable assurance from FGT that the limited life of the turbines is normal and not due to elevated operating parameters, sent with FDEP Memo dated April 30, 1997, to Jerry Campbell, EPCHC, Jeff Koerner, PBCPHU, and Jerry Kissel, SWD.
 - d) Letter from Clayton A. Roesler, FGT, to Jerry Kissel, received by FDEP Southwest District May 1, 2000, requesting authorization to replace turbine 2601 due to development of stress cracks.

e) Letter from Jacob Krautsch, FGT, to Gerald Kissel, FDEP, dated March 18, 2002, providing notification of the need to replace engine 2602 due to a bearing failure.

2. Evidence pertinent to the inaccuracy of Respondent FGT's Potential To Emit NOx data, and thus the sufficiency of the stack parameters and site data. The laws, definitions, and methods applicable to stationary gas turbines are matters of judicial notice under Section 90.202(9), (1) and (12), Florida Evidence Code:

a) Conversion factors and other mathematical tools necessary to correlate the engine specifications with the applicable statutory standards and as required for comparison of FGT claims with the actual performance of other similar engines. Some conversion factors can be found in the AP-42, Appendix A, an EPA document. The application of common conversion factors to the Ideal gas law is required for temperature adjustment of standard (68 F) to ISO (59 F) and to convert the Ideal gas constant R in metric to R in English units.

b) The definition of "brake" horsepower is a fact that is not subject to dispute because it is capable of accurate and ready determination by resort to sources whose accuracy cannot be questioned. The inclusion of the Federal Aviation Administration and a textbook definition is offered as a courtesy only. Available upon request.

c) The Final Application to Construct CS 26, a similar FGT facility in Lecanto, dated April 1, 1993, pages D-5, D-7 and D-8.

Facility ID: 0170035.

- d) The Annual Operating Report for CS 26 for 2000, p. 5 “Calculations,” and the revised “2000 AOR Calculations” table, page unnumbered.
Facility ID: 0170035.

3. Evidence pertinent to the insufficiency and inaccuracy of Respondent FGT’s site data:

- a) Local meteorological evidence from Vandenberg Airport where records of wind speed and direction, temperature and humidity are recorded on an hourly basis. Daily summaries available on the Internet, Search “Underground Weather.” At hearing records will be provided as copied from the official Vandenberg weather data archive. This data is subject to Judicial Notice under Section 90.202 (11).
- b) Attachment B “Plot Plan” to the Final State Application to Construct for CS 27, dated January 4, 2002, showing the plot plan for Osceola County, not CS 27, and “Location Map” Figure 1.1 on page 2 of same document. As filed with EPCHC. Permit No.: 0571279-001-AC.
- c) Maps derived from Computer access to County records and labeled “Petitioners’ Thonotosassa Map” and “Petitioners’ Topographical Map.” This data is subject to Judicial Notice under Section 90.202 (11), Florida Evidence Code. Demonstrates that the stack is within Vandenberg Airport’s Air Space.
- d) The Respondent’s corresponding map Figure 1 from the May 21, 2001, Notice of the Amended “FGT Phase V Expansion.” FERC Public File, Docket Nos. CP00-40-000, -001, and -002.

- e) Drawing No. 471-V-12 from the Draft EIS and Draft Permit filed at the EPC of Hillsborough County. Plot plan labeled as CS 27, but would not fit onto the 20 acre CR 579 site.
Permit No: 0571279-001-AC.
- f) Letter to Patricia Kemp from Jeff Koerner concerning CS 27 site, dated March 21, 2002, with two maps attached.
- g) Distances between the site for CS 27 and local residences and cultural resources are a matter of Judicial Notice under Section 90.202 (11), Florida Evidence Code, and witnesses may be provided if Respondent will not admit to the following: CS 27 is within a mile of downtown Thonotosassa, less than ½ mile from Thonotosassa Park, ¾ mile from the Thonotosassa Elementary School, ¾ mile from the Thonotosassa Post Office and Public Library, one mile from Lake Thonotosassa, the largest lake in Hillsborough County, within 100 feet of the highest point in Hillsborough County, altitude 143 feet above sea level, and under the flight path for nearby Vandenberg Airport.

4. Evidence demonstrating that CS 27 is a major (Title V) source for N0x emissions, and thus demonstrating the insufficiency of data concerning the stack parameters as well as the invalidity of the permitting process:

- a) Data in the Compliance Test Report for Unit 2602, prepared by Cubix Corporation, dated August, 2001. This is the identical model to those to be installed at CS 27. Facility ID: 0170035.

- b) Federal Laws and Amendments as may be announced in the Federal Register pertaining to Test Methods and Calculations used by Cubix Corporation in the above Compliance Test Report, Appendix B.
 - c) Appendix C, of the Final State Application to Construct CS 27, Draft Permit No. 0571279-001-AC.
 - d) The Process Description from the AP-42, Fifth Edition, Volume I, Chapter 3.1, “Stationary Internal Combustion Sources,” available from the EPA @ <http://www.epa.gov/ttn/chief/ap42>.
5. Evidence demonstrating that the Draft Permit violates the rights of the public, including the Petitioners, to data on the nature and amounts of emissions as reported and as correlated with any applicable emission standards or limitations, pursuant to 40 CFR 51.230(f). Included in this category will be evidence that Respondent FGT has misrepresented such data on related occasions:
- a) The CS 27 P5 Final State Application to Construct, Draft Permit No. 0571279-001-AC, and the Draft Permit itself.
 - b) EPA AIRData available at the Enviro-Warehouse search engine, request “Florida NET Air Pollution Point Sources—Nitrogen Oxides (1999) or @ <http://oaspub.epa.gov/pls/airsdata>.
 - c) Final Environmental Impact Statement for FGT Phase V Pipeline Project, Table 3.11.1-2, “FGT Phase V Expansion.” FERC Public File, Docket Nos. CP00-40-000, -001, and -002.

- d) FERC RIMS DOC 2106247, p.o.18 of 36, available at <http://rimsweb1.ferc.fed.us>, which quotes FGT that electric driven compressor units are as efficient as gas turbines, but more environmentally responsible, impeaching Respondents claim that Petitioners are solely responsible for delaying the re-firing of TECO's coal burning Gannon Plant.
- e) Map conflating the Taylor Road location with the CS 579 location until such time as FGT needed an accurate map for final order, from the civil suit FGTC v. Joan Johnston Crow, Case No. 0110002, Civil Division, Exhibit B (OR BK 11205 PG 0327) dated November 16, 2001, and Exhibit A (OR BK 11469 PG 1285) dated March 7, 2002.

(d) A list of the names and addresses of all witnesses:

Michael Lamphier	10436 Less Traveled Road, Thonotosassa, FL
Lynette Lamphier	10436 Less Traveled Road, Thonotosassa, FL
Toni Williams	Thonotosassa County Park, Skewlee Road, Thonotosassa, FL
Charles Johnson	10416 Skewlee Road, Thonotosassa, FL
Elizabeth Matthew	9319 Eastfield Road, Thonotosassa, FL
Ann Fabel	P.O. Box 1221, Thonotosassa, FL
Gerry Meisels	10815 Great White Oaks Lane, Thonotosassa, FL
Randy Pickett	10515 Skewlee Road, Thonotosassa, FL

Additionally Petitioners expect to have a Representative from Hillsborough County Aviation Authority but due to security measures surrounding the July 4th holiday we do not have a name at this time.

(e) A concise statement of those facts which are admitted and will require no proof at hearing, together with any reservations directed to such admission:

1. CS 27 will consist of two 7222 bhp gas turbine.....admitted
2. CS 27 is subject to 40 CFR 60, Subpart GG.....admitted
3. CS 27 proceeding based on applicable rules.....admitted
4. Land use issues are not subject of air construction permit.....admitted

(f) A concise statement of those issues of law on which there is agreement:

(g) A concise statement of those issues of fact which remain to be litigated:

Petitioners' Proposed Finding Of Fact 1: That the equation to adjust to ISO conditions found in 40 CFR 60.335(c)(1) has been "amended" to yield an irrational model of NOx emissions and that such amendments are unauthorized and invalid, making the use of 40 CFR 60.335 revisions prior to 1988 necessary.

Petitioners' Proposed Finding Of Fact 2: That the data presented by the manufacturer and FGT is not correlated to the applicable standard, and that the Example

Calculations, Appendix B of the Compliance Test Report for Unit 2602, August 2001, demonstrate that there is confusion within the Permitting Process between Standard Conditions (68 degrees F) and ISO Conditions (59 degrees F), requiring the public to apply conversion factors not readily available or provided by FDEP, in violation of 40 CFR 51.230(f), which mandates that FDEP make available to the public, including the Petitioners, data on the nature and amounts of emissions as reported and as *correlated with any applicable emission standards or limitations.*;

Petitioners' Proposed Finding Of Fact 3: That FGT CS 27 will in fact emit 100 tons per year of N0x, making it a Title V facility, and that no federally enforceable restrictions on production or operating hours make it a "synthetic minor source."

Petitioners' Proposed Finding Of Fact 4: That Respondent FGT failed to provide FDEP or the public, including the Petitioners, with appropriate or accurate site data (cultural, geographical and topographical) and that FDEP continued to provide insufficient topographical and inaccurate plot plan maps as late as March 21, 2002 when asked for better information by the residents and Representatives of Thonotosassa.

Petitioners' Proposed Finding Of Fact 5: That Respondent FGT has misrepresented emissions data as demonstrated by discrepancies between EPA AIRData reports and the equivalent data reported in the Final EIS for the Expansion V Project as reported to FERC.

Petitioners' Proposed Finding Of Fact 6: That FGT does trade natural gas for electricity to run compression turbines, one for one, and that such fuel option, as FGT states

in FERC RIMS DOC 2106247, p.o. 18 of 36, offers operational and environmental benefits, as well as lower costs. Thus FGT has better options.

Petitioners' Proposed Finding Of Fact 7: That Respondent FGT misrepresented the location of CS 27 throughout the Civil Suit in Eminent Domain, but then changed to the correct map when preparing the Stipulated Order of Taking, and thus FGT demonstrates knowledge and intent to deceive.

(h) A concise statement of those issues of law which remain for determination by the Administrative Law Judge:

That CS 27 cannot be a "synthetic non-Title V [minor] source" as claimed in the rule basis for Section 3, number 6, "Specific Conditions" of the Draft Permit, within the meaning of 62-210.200 (254) F.A.C., as said definition requires that a "synthetic non-Title V [minor] source" be "A facility that would be classified as a Title V source but for a physical or operational limitation";

Chapter 62-212.300(3)(a), F.A.C., requires the applicant to provide the nature and amounts of emissions from the emissions unit, and the operation of such unit, to the extent necessary to allow the department to determine whether construction or modification would result in violation of 403.021 (3) and (8), F.S., mandating that *the mission of Florida Department of Environmental Protection is, first and foremost, to protect the public health and safety;*

That such manipulation of the rule basis for "synthetic minor sources" violates 40 CFR 51.160, which requires that the Florida State Implementation Plan set forth legally enforceable procedures "that enable the state or local agency to determine

whether the construction of a facility will violate applicable portions of the control strategy”;

That such misrepresentation and circumvention violates the rights of the residents of Thonotosassa, including the Petitioners, pursuant to 62-210.350, F.A.C., “Public Notice and Comment,” and forecloses any meaningful public review and opportunity for comment as mandated under 62-210.300 (2) (b) 3., F.A.C.;

That such misrepresentation and circumvention violates 62-212.300(1)(c), F.A.C., which states that FDEP shall not permit the construction of a facility that would exceed air quality standards at any point within a baseline area, specifically Thonotosassa and the property of the petitioners, yet FDEP failed to obtain the essential information to make such a determination;

That such Circumvention of the Florida State Implementation Plan and Federal laws as above stated, violates the rights of citizens of the United States to due process and equal protection under the U.S. Clean Air Act, 42 USC.s 7401 et seq., to the cost and detriment of the property, health, and safety of the residents of Thonotosassa, including the Petitioners.

(i) A concise statement of any disagreement as to the application of the rules of evidence:

Comes now the Petitioners to request that the Honorable J. Lawrence Johnston, Administrative Law Judge in the case, receive the above listed documents and materials under section (c) of this Petitioners’ Proposed Pre-Hearing Statement

into the evidence of record for DOAH Case No. 02-1678. The Petitioners make the following claims:

That the documents and material listed in section (c) above contain facts necessary to establish proof of the facts at issue in this case;

That the definition of “representative actual annual emissions” found in 40 CFR 52.21(b)(33) is adopted and incorporated by reference in Rule 62-204.800, F.A.C., and referred to in 62-210.200(11) “actual emissions,” and that therefore in projecting future emissions the Administrator [department] shall, pursuant to 40 CFR 52.21(b)(33)(i): “Consider all relevant information, including but not limited to, historical and operational data, the company’s own representations, filings with the State or Federal regulatory authorities, and compliance plans under title IV of the Clean Air Act”;

That therefore FDEP was entitled to and should have considered the Compliance Test Report for unit 2602, a model identical to those to be installed in Thonotosassa, in order to validate the accuracy of FGT’s data submitted in the application for construction of CS 27 before writing the Draft Permit;

That, according to 120.57(1)(d), F.S., “Notwithstanding s. 120.569(2)(g), F.S., similar fact evidence of other violations, wrongs or acts is admissible when relevant to prove a material fact in issue, such as proof of motive, opportunity, intent, preparation, plan, knowledge,” etc.;

That therefore evidence that would require that FGT be held to a standard of strict proof rather than reasonable assurance is admissible;

That, according to 120.57(1)(j), "Findings of fact shall be based upon a preponderance of the evidence...and shall be based exclusively on the evidence of record and on matters officially recognized."

That therefore the material and documents listed above are admissible and relevant to Petitioner's claim that FGT has misrepresented facts concerning location and emissions of CS 27, and omitted necessary facts, and thereby circumvented the laws protecting the property and health of the Petitioners;

That the witnesses to be called under section (d) are necessary to swear in some of the evidence listed in section (c), and that the other documents obtained from the files at FDEP, Division of Air Regulation, or the Environmental Protection Commission of Hillsborough County, are official actions of an executive department admissible under Section 90.202 (5), Florida Evidence Code;

That the Petitioners' hereby give timely notice to Respondents FGT and FDEP, and having provided sufficient information to identify the evidence and witnesses above listed, and having provided copies of said documents sent during discovery attached to the stricken Petitioners' Proposed Findings Of Facts 4 through 8, and to the Petitioners' Interrogatories for the Respondent;

That Petitioners have thus met the requirements of Section 90.203, Florida Evidence Code, and per also *Conyers v. State*, 98 Fla. 417, 123 So. 817 (1929), feel entitled to receive judicial notice;

That therefore the Petitioners respectfully request that the Honorable J. Lawrence Johnston officially recognize and include into the record for this case all the witnesses, material, and documents listed in sections (c) and (d) above as required

to prove the seven Petitioners' Proposed Findings Of Facts. The Petitioners include this motion within the Petitioners' Proposed Pre-Hearing Statement and Notice and Service thereof is Notice and Service of this Motion also.

(j) A list of all pending motions or other matters which require action by the Administrative Law Judge:

1. The Motion to enter into the officially recognized record for this case the Petitioners' Proposed Findings of Fact 1, 2, 3, 4, 5, 6, and 7, and the Petitioners' Proposed Pre-Hearing Statement.
2. The Petitioners' Motion to Request An Order To Amend The Original Petition.

(k) An estimate as to the length of time required for the hearing:

Two days.

(l) The signature of counsel for all parties.

Comes now the Petitioners to request entry into the officially recognized record for this case of the Petitioners' Proposed Pre-Hearing Statement pursuant to 120.569, F.S. and 120.57(1), F.S.;

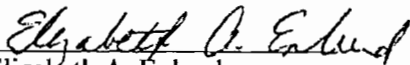
That an original and a true copy of this Petitioners' Proposed Pre-Hearing Statement by the Petitioners has been sent by certified United States Mail to Anne Longman, Edwin A. Steinmeyer, and John W. Forehand, counsel for Respondent FGT, at LEWIS, LONGMAN & WALKER, P.A., Post Office Box 10788 (32302), 125 South Gadsden Street, Suite 300, Tallahassee, Florida, 32301;

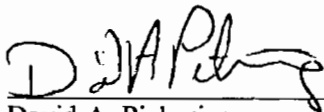
That an original and a true copy of this Proposed Pre-Hearing Statement by the Petitioners has been sent by certified United States Mail to W. Douglas Beason, Assistant General Counsel, FDEP, 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida, 32399-3000;

That NOTICE of the Proposed Pre-Hearing Statement is hereby given to the Respondents FGT and FDEP, this 8th day of July, 2002;

That hereby the Petitioners respectfully request that the Honorable J. Lawrence Johnston enter the Petitioners Proposed Pre-Hearing Statement into the record for this case or allow the Petitioners to correct some unknown and unintentional insufficiency.

Submitted this 8th day of July, 2002.


Elizabeth A. Enlund
Post Office Box 778
Thonotosassa, FL 33592-0778
(813) 986-8992


David A. Pickering
Post Office Box 778
Thonotosassa, FL 33592-0778
(813) 986-8992

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of the foregoing was served by U.S. Mail on Anne Longman, Edwin Steinmeyer, John Forehand, counsel for FGTC at LEWIS, LONGMAN & WALKER, P.A., 125 South Gadsden Street, Suite 300, Post Office Box 10788 (32302), Tallahassee, FL, 32301 and W. Douglas Beason, Assistant General Counsel, Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, FL, 32399-3000 this 8th day of July 2002.


Petitioner

STATE OF FLORIDA
DIVISION OF ADMINISTRATIVE HEARINGS

ELIZABETH A. ENLUND and
DAVID A. PICKERING,

COPY

Petitioners,

Vs.

DOAH Case No.: 02-1678

FLORIDA GAS TRANSMISSION
COMPANY and DEPARTMENT OF
ENVIRONMENTAL PROTECTION,

Respondents.

PETITIONERS' PROPOSED PRE-HEARING STATEMENT

Here comes the Petitioners, Elizabeth A. Enlund and David A. Pickering, to serve and file the Petitioners' Proposed Pre-Hearing Statement pursuant to the requirements of the "Order Of Pre-Hearing Instructions" made by the Honorable J. Lawrence Johnston, and dated May 10th, 2002.

(a) A concise statement of the nature of the controversy:

That the site parameters (cultural, topographical and geological) and other essential data (altitude at stack base and accurate Potential To Emit NOx data) were not submitted to FDEP during the permitting process nor made available to the public as required by 40 CFR 51.230(f), which mandates that FDEP make available to the public, including the petitioners, data on the nature and amounts of emissions as reported and as *correlated with any applicable emission standards or* limitations.;

That respondent FGT has misrepresented the amount of Potential NO_x emissions from the proposed Compressor Station 27 (CS 27 hereafter) in the CS 27 P5 Final State Application and the FGT 27V Draft Permit No. 0571279-001-AC (Draft Permit hereafter), as well as in the Annual Operating Reports and Compliance Tests from similar FGT facilities;

That misrepresentation is accomplished by the use of fraudulent equations in violation of 40 CFR 60.335 (c) (1) and (3), and the use of inaccurate or inappropriate conversion units as demonstrated in the Petitioners' Proposed Findings of Facts;

That if the Potential to Emit is 25 ppmvd as alleged in the Draft Permit, section 3, no. 6, by applying equation 20-6, of Method 20 pursuant to 40 CFR 60.335 (c) (3), the maximum expected emissions (PTE) is equal to 53 lbs/hour per unit, not 5.7 lbs/hour as stated by FGT;

That the Potential To Emit must be based upon the maximum capacity of an emissions unit or facility to emit a pollutant under its physical and operational design, pursuant to 62-210.200(203), F.A.C., and thus the PTE must be based upon 175 ppm STD from Subpart GG of 40 CFR 60;

That therefore this and other calculations indicate that CS 27 is in fact a Title V Major Source for NO_x emissions as defined by the U.S. Clean Air Act, 42 USC.s 7401 et seq., and as defined pursuant to 62-213.420(3)(c) 1., F.A.C., "Major Source Thresholds," and 62-210.200(157), F.A.C., and 62-210.200(159)(b), F.A.C.;

That Respondent FGT violates Rule 62-213, F.A.C., by manipulating the rule basis for "synthetic minor [sic] sources" as stated in the Draft Permit Section 3, no.6;

That Respondent FGT has in the past (FGT letter to Clair Fancy, 1993) amended by “Administrative Correction” Air Operating Permits to increase maximum heat inputs and fuel consumption rates over the manufacturer’s values by 20% for multiple (Phase III) facilities similar to CS 27;

That an increase in heat input and fuel consumption necessarily increases NOx emissions;

That such increases may be creating a threat to public safety as the engines are thus run beyond the design capacity, and letters submitted with the Finding of Facts indicate the engines are failing in less than 5000 hours from the stress;

That an increase in heat input and/or fuel consumption of 20% requires a new Air Construction Permit pursuant to 62-210.300 (1) (b) 1., F.A.C.;

That therefore the draft permit demonstrates no physical or operational limitation that is “federally enforceable” as defined by Chapter 62-210.200 (114) F.A.C., such as a restriction in hours or production that cannot be changed at the Respondent’s convenience as demonstrated by the Clair Fancy letter (attached to Finding of Fact 5);

That therefore CS 27 cannot be a “synthetic non-Title V [minor] source” as claimed in the rule basis for Section 3, number 6, “Specific Conditions” of the Draft Permit, under 62-210.200 (254) F.A.C., as said definition requires that a “synthetic non-Title V [minor] source” be “A facility that would be classified as a Title V source but for a physical or operational limitation”;

That such manipulation of the rule basis for “synthetic minor sources” violates 62-212.300(3)(a), F.A.C., which requires the applicant to provide the nature and amounts of emissions from the emissions unit, and the operation of such unit, to

the extent necessary to allow the department to determine whether construction or modification would result in violation of 403.021 (3) and (8), F.S., mandating that the mission of FDEP is, first and foremost, to protect the public health and safety;

That such manipulation of the rule basis for “synthetic minor sources” violates 40 CFR 51.160, which requires that the Florida State Implementation Plan set forth legally enforceable procedures “that enable the state or local agency to determine whether the construction of a facility will violate applicable portions of the control strategy”;

That such misrepresentation and circumvention violates the rights of the residents of Thonotosassa, including the petitioners, pursuant to 62-210.350, F.A.C., “Public Notice and Comment,” and forecloses any meaningful public review and opportunity for comment as mandated under 62-210.300 (2) (b) 3., F.A.C.;

That such misrepresentation and circumvention violates 62-212.300(1)(c), F.A.C., which states that FDEP shall not permit the construction of a facility that would exceed air quality standards at any point within a baseline area, specifically Thonotosassa and the property of the petitioners, yet FDEP failed to obtain the essential information to make such a determination;

That Respondent FGT, an ENRON affiliate, has engaged in a pattern of misrepresentation in past actions with the FDEP, the EPA and/or FERC, and thus is subject to provisions in 62-4.070(5), F.A.C., requiring that the department *shall* demand strict proof, rather than reasonable assurance, that emissions at CS 27 will not exceed the minor source threshold as claimed in the Draft Permit;

That the Florida State Implementation Plan control strategy is based upon the permitting procedures in Chapter 62, F.A.C., which procedures include application of 42 USC.s 111 (b)(4), New Source Performance Standards (emission allowances) and;

That respondent FGT has circumvented the Florida State Implementation Plan by a failure to submit accurate site and Potential to Emit data and thereby violates 40 CFR 51.230(d), (e) and (f), as well as 403.0623, F.S., "Environmental data; quality assurance," as well as Florida State Implementation Plan provisions in Chapter 62, F.A.C., that apply 42 USC.s 111 (b) (4) noted above;

That Respondent FGT misrepresents "vendor's data" on the Draft Permit (and in the Annual Operating Reports from other facilities), and then subsequent to compliance testing (i.e. when caught), employs "Administrative Corrections" to the Air Construction Permit and/or the Air Operating Permit to adjust "allowable emissions" at Respondent's convenience;

That such Circumvention of the Florida State Implementation Plan and Federal laws as above stated, violates the rights of citizens of the United States to due process and equal protection under the U.S. Clean Air Act, 42 USC.s 7401 et seq., to the cost and detriment of the property, health, and safety of the residents of Thonotosassa, including the petitioners.

(b) A brief, general statement of each party's position:

To be determined.

(c) A list of all exhibits to be offered at the hearing:

1. Shigehara, R.T. and R. M. Neulicht, W.S. Smith and J.W. Peeler. July, 1976.
“Summary of F-Factor Methods for Determining Emissions from Combustion Sources.” Taken from Source Evaluation Society Newsletter, Vol.1, No. 4, November 1976.
2. Compliance Test Reports submitted to FDEP from natural gas fired turbines as needed.
3. Annual Operating Reports submitted to FDEP from natural gas fired turbines as needed.
4. Correspondence between FGT and FDEP as needed, copied from FDEP files.
5. Air Construction Permits, and amendments and correspondence thereto, and Air Operation Permits, and amendments and correspondence thereto, from natural gas fired turbines as needed.
6. Final Applications as submitted to FDEP from natural gas fired turbines as needed.
7. Federal Regulatory Energy Commission (FERC) documents pertaining to Phase II to Phase VI Expansion Projects by Respondent FGT.
8. FERC Environmental Impact Statements relating to CS 27.
9. FERC and EPA data received from Respondent FGT.
10. *Definition of brake horsepower* and conversion factor for brake horsepower to Kilowatts from – Archer, R. Douglas and Maida Saarlus. Introduction to Aerospace Propulsion. Upper Saddle River; New Jersey: Prentice Hall, 1996. pp. 16, 195-198. and from –URL: www.faa.gov definition of brake horsepower.

11. *Recommended Test Methods* from – Procedures For Preparing Emission Factor Documents. Office of Air Quality Planning and Standards, U.S. EPA, Research Triangle Park, NC: EPA-454/R-95-015, Revised. November, 1997.
12. *Ambient temperature effect* from – Compilation of Air Pollutant Emission Factors AP-42. Fifth Edition, Volume I: Stationary Point and Area Sources. Chapter 3: Stationary Internal Combustion Sources. Update 2001. Available at URL: <http://www.epa.gov/ttn/chief/ap42/ch03/>
13. E-mail from Jeff Koerner, New Source Review Section, FDEP, Tallahassee, to Patricia Kemp, dated March 21, 2002, with site plan and quad map attached.
14. FGTC v Joan Johnston Crow, et al., 13 Judicial Circuit Court, Hillsborough County, Florida, Case No. 0110002; Notice of Lis Pendens, Petition in Eminent Domain, November 16, 2001, exhibit B (OR BK 11205 PG 0327), and Stipulated Order of Taking, February 6, 2002, exhibit A (OR BK 11469 PG 1274-1285).
15. Hillsborough County Tax Assessors Office, Mapping Department; current township maps as needed.
16. U.S. Geological Survey Maps and/or SWFWMD topographical and other maps, as needed.
17. Compilation of Air Pollutant Emission Factors AP-42. Fifth Edition, Volume I: Stationary Point and Area Sources. Chapter 3: Stationary Internal Combustion Sources and Appendix A: Conversions. Update 2001. @ <http://www.epa.gov/ttn/chief/ap42/ch03/>

(d) A list of the names and addresses of all witnesses:

To be determined.

(e) A concise statement of those facts which are admitted and will require no proof at hearing, together with any reservations directed to such admission:

To be determined.

(f) A concise statement of those issues of law on which there is agreement:

To be determined.

(g) A concise statement of those issues of fact which remain to be litigated:

Petitioners' Proposed Finding Of Fact 1: That application of the proper and correct conversion units to vendor's data, which is stated in (N0x) grams/bhp-hr, is equivalent to .539 lbs N0x/MMBtu, and therefore that the Potential to Emit for a unit with a heat input of 63MMBtu/hour, such as at CS 27, will be approximately greater than 140.6 tons per year according to the vendor's data, not 25 tons/year as claimed in the Draft Permit.

Petitioners' Proposed Finding Of Fact 2: That according to Method 20, pursuant to 40 CFR 60, Appendix, Equation 20-6, the actual N0x emissions, as determined by the Compliance Test of July, 2001, of an identical engine model and size as will be installed at CS 27 (FGT unit 2602), amounted to 23.7 lbs/hour, i.e. 103.7 tons per year per unit.

Petitioners' Proposed Finding Of Fact 3: That using the ISO correction equation pursuant to 40 CFR 60.335 (c), which equation corrects the measured N0x concentrations as measured at temperatures over 1000 degrees F and at pressures (872.7 psig) 60 times ISO conditions (14.7 psig or 1 atm), FGT engine 2602

demonstrates in the Compliance Test of July, 2001, actual NO_x emissions of 72.7 ppmvd, i.e. 20.75 lbs/hour or 91 tons per year.

Petitioners' Proposed Finding Of Fact 4: That Respondent FGT failed to provide FDEP or the public, including the Petitioners, with appropriate or accurate site data (cultural, geographical and topographical) and that FDEP continued to provide insufficient topographical and inaccurate plot plan maps as late as March 21, 2002 when asked for better information by the residents and Representatives of Thonotosassa.

Petitioners' Proposed Finding Of Fact 5: That the letter to Mr. Clair Fancy, dated August 11, 1993 from FGT documents the fact that the Respondent FGT increased the maximum heat inputs and fuel consumption rates by 20%, and that such change in process parameters increases NO_x emissions, and that such change was accomplished through "Administrative Correction" for multiple facilities at Respondent FGT's convenience.

Petitioners' Proposed Finding Of Fact 6: That Respondent FGT has misrepresented emissions data as demonstrated by discrepancies between EPA AIRData reports and the equivalent data reported in the Final EIS for the Expansion V Project as reported to FERC.

Petitioners' Proposed Finding Of Fact 7: That FGT does trade natural gas for electricity to run compression turbines, one for one, and that such fuel option, as FGT states in FERC RIMS DOC 2106247, p.o. 18 of 36, offers operational and environmental benefits, as well as lower costs.

Petitioners' Proposed Finding Of Fact 8: That Respondent FGT misrepresented the location of CS 27 throughout the Civil Suit in Eminent Domain, but then changed to the correct map when preparing the Stipulated Order of Taking, and thus FGT demonstrates knowledge and intent to deceive.

(h) A concise statement of those issues of law which remain for determination by the Administrative Law Judge:

To be determined.

(i) A concise statement of any disagreement as to the application of the rules of evidence:

Comes now the Petitioners to request that the honorable J. Lawrence Johnston, Administrative Law Judge in the case, receive the above listed documents and materials under section (c) of this Petitioners' Proposed Pre-Hearing Statement into the evidence of record for DOAH Case No. 02-1678. The Petitioners make the following claims:

That the documents and material listed in section (c) above contain facts necessary to establish proof of the facts at issue in this case;

That the definition of "representative actual annual emissions" found in 40 CFR 52.21(b)(33) is adopted and incorporated by reference in Rule 62-204.800, F.A.C., and referred to in 62-210.200(11) "actual emissions," and that therefore in projecting future emissions the Administrator [department] shall, pursuant to 40 CFR 52.21(b)(33)(i): "Consider all relevant information, including but not limited to, historical and operational data, the company's own representations,

filings with the State or Federal regulatory authorities, and compliance plans under title IV of the Clean Air Act”;

That therefore FDEP was entitled to and should have considered all listed items under section (c) above in order to validate the accuracy of FGT’s data submitted within the Draft Permit and data submitted within the preceding application for construction of CS 27;

That, according to 120.57(1)(d), “Notwithstanding s. 120.569(2)(g), similar fact evidence of other violations, wrongs or acts is admissible when relevant to prove a material fact in issue, such as proof of motive, opportunity, intent, preparation, plan, knowledge,” etc.;

That, according to 120.57(1)(j), “Findings of fact shall be based upon a preponderance of the evidence...and shall be based exclusively on the evidence of record and on matters officially recognized.”

That therefore the material and documents listed above under section (c) are admissible and relevant to Petitioner’s claim that FGT has misrepresented facts, omitted necessary facts, and circumvented the law;

That thus the rights and protections due to the residents of Thonotosassa have been violated and abrogated to the cost and detriment of the Petitioners;

That therefore the petitioners respectfully request from the Honorable J. Lawrence Johnston official recognition, and inclusion into the record for this case, of all the material and documents as required from the sources listed under section (c) above. The Petitioners include this motion within the Petitioners’ Proposed Pre-Hearing Statement and Notice thereof is Notice of this Motion also.

**(j) A list of all pending motions or other matters which require action by the
Administrative Law Judge:**

1. The Motion under (i) above in the Petitioners' Proposed Pre-Hearing Statement to rule admissible such sources of information as are found in section (c) of said document.
2. The Motion to enter such documents and materials selected from sources listed under section (c) of this Petitioners' Proposed Pre-Hearing Statement as will be attached to the various Petitioners' Proposed Findings of Facts for this case.
3. The Motion to enter into the officially recognized record for this case the Petitioners' Proposed Findings of Fact 1, 2, 3, 4, 5, 6, 7, and 8, and the Petitioners' Proposed Pre-Hearing Statement.

Other Motions as required.

(k) An estimate as to the length of time required for the hearing:

To be determined.

(l) The signature of counsel for all parties.

Comes now the Petitioners to request entry into the officially recognized record for this case of the Petitioners' Proposed Pre-Hearing Statement pursuant to 120.569, F.S. and 120.57(1), F.S.;

That an original and a true copy of this Petitioners' Proposed Pre-Hearing Statement by the Petitioners has been sent by certified United States Mail to Anne Longman,

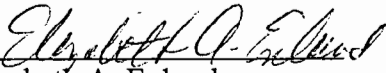
Edwin A. Steinmeyer, and John W. Forehand, counsel for Respondent FGT, at
LEWIS, LONGMAN & WALKER, P.A., Post Office Box 10788 (32302), 125
South Gadsden Street, Suite 300, Tallahassee, Florida, 32301;


That an original and a true copy of this Proposed Pre-Hearing Statement by the
Petitioners has been sent by certified United States Mail to W. Douglas Beason,
Assistant General Counsel, FDEP, 3900 Commonwealth Boulevard, Mail Station
35, Tallahassee, Florida, 32399-3000;

That NOTICE of the Proposed Pre-Hearing Statement is hereby given to the Respondents
FGT and FDEP, this 4~~th~~ day of June 2002;

That hereby the Petitioners respectfully request that the Honorable J. Lawrence Johnston
enter the Petitioners Proposed Pre-Hearing Statement into the record for this case
or allow the Petitioners to correct some unknown and unintentional insufficiency.

Dated the 4~~th~~ day of June, 2002.


Elizabeth A. Enlund
Post Office Box 778
Thonotosassa, FL 33592-0778


David A. Pickering
Post Office Box 778
Thonotosassa, FL 33592-0778

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of the foregoing was served by U.S.
Mail on Anne Longman, Edwin Steinmeyer, John Forehand, counsel for FGTC at LEWIS,
LONGMAN & WALKER, P.A., 125 South Gadsden Street, Suite 300, Post Office Box 10788
(32302), Tallahassee, FL, 32301 and W. Douglas Beason, Assistant General Counsel,
Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station 35,
Tallahassee, FL, 32399-3000 this 4~~th~~ day of June 2002.


Petitioner

RECEIVED

JUN 14 2002

STATE OF FLORIDA
DIVISION OF ADMINISTRATIVE HEARINGS

BUREAU OF AIR REGULATION

ELIZABETH A. ENLUND and
DAVID A. PICKERING,

Petitioners,

COPY

Vs.

DOAH Case No.: 02-1678

FLORIDA GAS TRANSMISSION
COMPANY and DEPARTMENT OF
ENVIRONMENTAL PROTECTION,

Respondents.

PETITIONERS' INTERROGATORIES FOR RESPONDENT FGT, JUNE 3, 2002

Comes now the Petitioners Elizabeth A. Enlund and David A. Pickering to present the following first Interrogatories to Respondent FGTC:

1. What and where is the authorization for using the revised (non-statutory) equation for correction to ISO conditions of NOx emissions as used in the Compliance Test Report on Unit 2602, filed with FDEP August 23, 2001, page 6 of Appendix B?
2. Has FGT done air dispersion modeling using ISCLT2, or any other programs, to compare the relative effects on air quality among the alternate sites for CS 27?
3. Has FGT done air dispersion modeling using ISCLT2, or any other programs, to evaluate the impacts on local air quality given the CR 579 site characteristics and the proposed stack parameters of CS 27?
4. What Emissions Factors and heat inputs are being used upon which to base the above computer simulated air dispersion modeling studies?

5. Will intake and exhaust silencers be added to the stack and/or is the stack designed to accommodate such silencers?
6. What does "routine" replacement entail and if its routine, why isn't it predictable (see attached letter from Al Linero, New Source Review Section to FGT dated April 30, 1997)?
7. Does FGT make a profit from these overhauled engines, on resale or otherwise, and are such profits applied to reduce rates for the ultimate electric consumer by FERC or the Florida State regulatory agency?
8. For how many operating hours is the Cooper-Rolls Royce Model 501-KC& DLE covered by a warranty and what are the conditions to the warranty (please provide a copy of such warranty)?
9. Why and under what statutory authority is the FGT facility in Lecanto (0170035-005-AC) both a minor and Title V facility according to FDEP documents?
10. Has FGT applied for a General Permit under 40 CFR 70.6 (d) and/or is CS 27 one of several facilities granted authorization to operate under a General Permit, and if so, by what agency?
11. Please state the statutory basis for any claim that FGT CS 27 is exempt from any specific air quality regulation because TECO is re-powering with Natural Gas?
12. What is the manufacturer's N0x emission factor for Cooper-Rolls Royce Model 501-KC7-DLE stated in grams/hp-hr?
13. What is the manufacturer's N0x emission factor for Cooper-Rolls Royce Model 501-KC7-DLE stated in lbs/MMBtu?

14. Describe the “major maintenance overhaul” pertaining to gas fired turbine engines 3001, 3002, and 3003 at the FGT facility in Plant City and explain the necessity for scrapping the engines (see FGT letter to Richard C. Kirvey, IV, dated June 26, 1997, attached)?
15. Please explain why turbine unit 2601 developed stress cracks in May 2000 and why turbine unit 2602 required replacement in March 2002 (see attached letters from FGT to Jerry Kissel, dated April 26, 2000 and March 18, 2002)?
16. Do the Draft Permit NO_x emissions limiting standards, as measured by the applicable Methods 19 and 20 and any other Methods used by CS 27, apply to thermal NO_x emissions?
17. How will thermal NO_x emissions be measured at CS 27?
18. Is the FGT CS 26 (0170035-005-AC) a minor or Title V emissions unit for the purposes of 62-297.310(7)(a) 1. and 4.(b), and please specify the rule, order or permit by which FGT equivocates between characterization as minor or Title V?
19. Has DEP waived compliance test requirements for FGT CS 26 under Rule 62-297.620, F.A.C. or 62-212.710, F.A.C., or 62-212.500, F.A.C. and if so, upon what basis?
20. Please specify the “federally enforceable” provisions of the Draft Permit for FGT CS 27 that have not been waived by FDEP, and/or any physical or operational limitation that cannot be changed upon request by FGT as demonstrated at other FGT facilities?
21. Is FGT using alternative methods and procedures for determining compliance with Subpart GG under section 40 CFR 60.335 (f)?

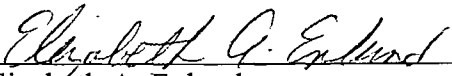
22. Will CS 27 be applying for a federally enforceable state operation permit (FESOP) under 62-210.300 (2)(b) 3., F.A.C.?
23. Has FGT applied for compliance options and/or alternative emissions limitations for its Compressor Stations under 40 CFR 72?
24. Has FGT requested that the permit be made federally enforceable at any of its Florida Compressor Stations?
25. Will an increase in heat-input constitute a change in production rate, and if so, is this change subject to requirements for a new Air Construction Permit?
26. Would an increase in production rate constitute an “administrative correction” under 62-210.360 (1), F.A.C.?
27. Would an increase in production rate constitute a “modification” under 62-210.200 (169), F.A.C.?
28. What is the Megawatt rating for CS 27?
29. What percentage of the brake horsepower is needed to drive the internal compressor for the Cooper-Rolls 501-KC7-DLE?
30. Is the gas exhausting from the first combustor re-mixed and/or re-ignited in the Cooper-Rolls 501-KC7-DLE engine?
31. How much water per hour does the unit (Cooper-Rolls 501-KC7-DLE) require at 100% load?
32. At 100% load, what is the rpm of the inlet air compression turbine, the power turbine and the exhaust turbine for units to be installed at CS 27?
33. What if any post-combustion catalytic controls will be used to control Nitrogen oxides?

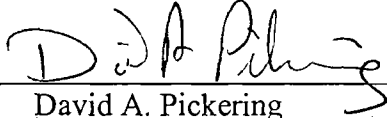
Respectfully submitted this 4th day of June, 2002.

That an original and a true copy of this PETITIONERS' INTERROGATORIES FOR RESPONDENT FGT, JUNE 3, 2002 by the Petitioners has been sent by certified United States Mail to Anne Longman, Edwin A. Steinmeyer, John W. Forehand, counsel for Respondent FGT, at LEWIS, LONGMAN & WALKER, P.A., Post Office Box 10788 (32302), 125 South Gadsden Street, Suite 300, Tallahassee, Florida, 32301;

That an original and a true copy of this PETITIONERS' INTERROGATORIES FOR RESPONDENT FGT, JUNE 3, 2002 by the Petitioners has been sent by certified United States Mail to W. Douglas Beason, Assistant General Counsel, FDEP, 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida, 32399-3000;

That PETITIONERS' INTERROGATORIES FOR RESPONDENT FGT, JUNE 3, 2002 has been properly noticed and is hereby submitted to be filed by the Court of Record, this 4th day of June 2002;


Elizabeth A. Enlund
Post Office Box 778
Thonotosassa, FL 33592-0778


David A. Pickering
Post Office Box 778
Thonotosassa, FL 33592-0778

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of the foregoing was served by U.S. Mail on Anne Longman, Edwin Steinmeyer, John Forehand, counsel for FGTC at LEWIS, LONGMAN & WALKER, P.A., 125 South Gadsden Street, Suite 300, Post Office Box 10788 (32302), Tallahassee, FL, 32301 and W. Douglas Beason, Assistant General Counsel, Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, FL, 32399-3000 this 4th day of June 2002.

file

Florida Department of
Memorandum Environmental
Protection

TO: Jerry Campbell, EPCHC
Jeff Koerner, PBCPHU
Jerry Kissel, SWD
THRU: Clair Fancy, Chief BAR
FROM: Al Linero, Administrator NSR Section
DATE: April 30, 1997
SUBJECT: Florida Gas Transmission Company (FGT)
April 2, 1997, Letter Amendment Requests

We have reviewed Jerry Campbell's memo of April 25, 1997 and had discussions with at least some of you regarding the FGT request to allow replacement of the combustion turbines at several facilities for routine maintenance purposes and your concerns about it. We agree that the responsible District or Local office should have jurisdiction with respect to these requests if they do not involve PSD permits. Therefore EPCHC should handle the one within Hillsborough County, the SWD should handle the one in Citrus County, PBCPHU should handle the one within Palm Beach County, and we will take care of the one in Taylor County. For your information, none of the Title V permits for the subject facilities is being processed in Tallahassee.

Day "30" is May 6. At this time, we plan to send FGT Company an incompleteness letter (draft attached) based on the fact that their request is not clear and not signed by a professional engineer. Please send us any additional comments to incorporate into our letter as soon as possible. FGT will send a copy of its reply to each responsible office who can then reevaluate their respective project for completeness.

Attached is a "draft model revision" of the format we intend to adopt for the units in Taylor County, if we accept FGT's position regarding routine turbine repair, maintenance, and replacement. We recommend that you employ a similar format. Please provide us with your comments on the adequacy of this format. Feel free to adopt it as necessary to reflect historical reliability in your area.

Since these construction permits have expired, it will be necessary to reissue them following the procedures outlined in the Guidance memo of February 4, 1995 (DARM-PERM/GEN-16).

If you have any questions, please contact Teresa Heron at SC 278-1344.

Attachments

CHF/aal/l

BEST AVAILABLE COPY

May XX, 1997

DRAFT DRAFT DRAFT DRAFT DRAFT DRAFT

Certified Mail - Return Receipt Requested

Mr. Clayton Roesler
Division Environmental Specialist
Florida Gas Transmission Company
P.O. Box 945100
Maitland, Florida 32794-5100

Re: Florida Gas Transmission Permit Modifications
1230034-004-AC, (PSD-FL-202), Station 15, Taylor County
0990333-003-AC, Station 21, Palm Beach County
0170035-003-AC, Station 26, Citrus County
0570438-004-AC, Station 30, Hillsborough County

Dear Mr. Roesler:

This letter is to confirm your April 9, 1997 telephone conversation with Ms. Teresa Heron, concerning your letter dated April 2, 1997. Your letter essentially requested treatment of turbine replacements as routine replacements not requiring construction permits or modifications. (Based on your observations, the turbines have been lasting only approximately 5000 hours or so making their replacement routine rather than life extension projects or modifications subject to construction permitting.)

It was our understanding that only the new (Phase III) turbines were unreliable to the extent that routine (possibly annual) replacement is foreseen. However it is not clear that the replacement is just for the gas turbines permitted during Phase III that are defective. Your request implies all existing gas turbines in the Florida Gas Transmission system. New units will be subject to 40 CFR 60, Subpart GG. Please be advised that a replacement of an old unit (pre- NSPS) for a new unit will have to be accomplished by the permitting process.)

Please provide the Department with reasonable assurance (e.g. a letter from the manufacturer of the turbine) that will indicate the limited life of the turbines and the need of routine repair, maintenance, or replacement for the affected turbines. Identify those FGT units that would be affected. Pursuant to Rule 62-4.050 F.A.C., please submit the above requested information under a professional engineer seal. This is required to provide reasonable assurance that the units to be replaced are identical in capacity and that the emissions will not exceed those of the already permitted turbine for that site or otherwise contravene a Department rule or permit condition.

Please direct a copy of your response to each of the individuals listed below. If you have any questions regarding this matter, please call Teresa Heron at (904) 488-1344.

Sincerely,

A. A. Linero, P.E. Administrator
New Source Review Section

AAL/th/t

Mr. Clayton Roesler
Page 2 of 2
May XX, 1997

cc: Jerry Campbell, EPCHC
Jerry Kissel, SWD
Jeff Koerner, PBCPHU
Bob Leetch, NED

(delegated to ESC) file - save



Florida Gas Transmission Company

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

June 26, 1997

CERTIFIED MAIL

Mr. Richard C. Kirby, IV, P.E.
Chief, Air Permitting Section
Environmental Protection Commission of Hillsborough County
1900 9th Avenue.
Tampa, Florida 33605

RE: Air Permit No. 0570438-003-AO
 FGT Compressor Station No. 30, Hillsborough County

Dear Mr. Kirby:

Subject: Air Permit Application to Replace Turbines 3001, 3002 and 3003

Enclosed is an air permit application for Florida Gas Transmission Company's (FGT) Compressor Station No. 30, located near Plant City in Hillsborough County. As discussed in our meeting on June 24, 1997, this is for the replacement of Compressor Turbines Nos. 3001, 3002 and 3003. These emission units are being replaced by identical units of the same models and sizes. There will be no change in emission rates for either of these emission units.

These replacements are being made due to the need for a major maintenance overhaul of the existing units that requires removal of these units to a maintenance facility at a remote location for a period of time. Since it is imperative that FGT provide a continuous supply of natural gas to users in Florida, replacement units must be put into place immediately in order to maintain the flow of natural gas. Due to the costs involved in returning the original units to the site and the need to disrupt operations again in order to reinstall them, FGT has decided to make the replacement units permanent.

Major maintenance on these turbines normally requires removal to a remote maintenance facility for a significant period of time. Additionally, a breakdown of these turbines requiring this type of major maintenance cannot always be predicted. Because FGT must maintain a continuous flow of natural gas to users, the time involved in the submittal and granting of a request for a permit modification for a new unit creates a delay that can result in potential interruptions of gas flow and unsafe operating conditions.

RECEIVED
JUL 07 1997
Department of Environment and Natural Resources
SOUTHWEST DISTRICT

Permit No. 0570438-003-AO
FGT Compressor Station No. 30
June 26, 1997

FGT therefore requests a construction permit for these replacements that is valid for a five year period so that when a turbine requires major maintenance and replacement in the future, FGT can quickly replace it with a unit of the same model and size.

A check in the amount of \$4,000.00 for the application fee is enclosed.

If you have any questions or need further information, please call me at (407) 875-5865.

Sincerely,

Clayton Roesler
WRB

Clayton Roesler
Division Environmental Specialist

David Parham, P.E.

Senior Environmental engineer

cc: Ms. Margaret Cangro, Air Quality Division, Florida Department of Environmental Protection, Southwest District, 3804 Coconut Palm Drive, Tampa, Florida 33619 - w/o enclosures

William Rome - FGT - w/o enclosures

FGT Plant City Compressor Station No. 30

ENCL

FILE: 30 replace applic cover.doc

FGTC 0170035-002-AO

FILE



Florida Gas Transmission Company

P.O. Box 945100, Maitland, Florida 32794-5100 (407) 838-7000

April 26, 2000

RECEIVED
MAY 01 2000
Department of Environmental Protection
BY SOUTHWEST DISTRICT

CERTIFIED MAIL

Mr. Jerry Kissel
Florida Department of Environmental Protection
Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

FAX 407-838-7101

Dear Mr. Kissel:

Re: Air Permit Number 0170035-002-AO
Replace of Turbine for Florida Gas Transmission Station #26 LeCanto, Citrus County,
Florida

Florida Gas Transmission (FGT) would like to request authorization to replace turbine unit 2601 as soon as possible. The turbine currently in service at the facility has developed stress cracks, and FGT is concerned about the safety of facility personnel and pipeline reliability should the turbine fail.

The current turbine, a 6500 bhp (ISO conditions) Solar Centaur-Taurus F-6502 natural gas fired combustion turbine will be replaced with a 6500 bhp (ISO conditions) Solar Centaur-Taurus F-6502 natural gas fired combustion turbine. Please see the attached letter from Solar confirming the model, horsepower and emission rates of the replacement turbine.

Per NSPS guidelines, the replacement turbine will be tested within 60 day of installation to confirm permitted emission rates are being met. If you have any questions, please call me at 407-838-7123.

Thank you,

Clayton A. Roesler
Clayton A. Roesler
Division Environmental Specialist



Florida Gas Transmission Company

1967 Commonwealth Lane, Tallahassee, FL 32303, (850) 350-5000, Fax (850)

DZ you already have this - this is another copy - JK

March 18, 2002

UPS Overnight

Mr. Gerald Kissel
Florida Department of Environmental Protection
Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

RECEIVED
MAR 19 2002
Department of Environmental Protection
BY SOUTHWEST DISTRICT

Re: Notification of Power Turbine and Gas Generator Replacement
Florida Gas Transmission Company – Compressor Station 26
Facility No. 0170035
Unit No. 2602

Dear Mr. Kissel:

Florida Gas Transmission (FGT) is providing formal notification to the Florida Department of Environmental Protection of recent activities associated with the Lecanto Station 26 facility. On February 16, 2002 Unit 2602 had a bearing failure, which required the replacement of certain components of the turbine. The components that will be replaced include the power turbine and gas generator. The replacement components will be of the same make and model as authorized by Permit 0170035-007-AO. The new components were replaced and Unit 2602 was back on-line February 25, 2002.

Unit 2602 will be tested within 60 days of installation of the components to confirm permitted emission rates are being met.

Please call me at (850) 350-5042, if you have any questions.

Sincerely,

Jacob S. Krautsch
Division Environmental Specialist

Cc: Marc Phillips
William Kendrick
Lecanto C/S 26
Mike Teal
Duane Pierce, AQMs

*Li W. Prosser
A. Lirino*

STATE OF FLORIDA
DIVISION OF ADMINISTRATIVE HEARINGS

ELIZABETH A. ENLUND and
DAVID A. PICKERING,

Petitioners,

COPY

Vs.

DOAH Case No.: 02-1678

FLORIDA GAS TRANSMISSION
COMPANY and DEPARTMENT OF
ENVIRONMENTAL PROTECTION,

Respondents.

_____ /

PETITIONERS' PROPOSED FINDING OF FACT 1

Comes now the Petitioners to make the following Proposed Finding Of Fact 1;

That Method 19 and 20 are used to calculate NO_x emissions in the Draft Permit and such

Methods are specified in 40 CFR 60, Appendix;

That fuels including Natural Gas emit a constant volume of combustion gas per *gross*

heat input (40 CFR 60 Appendix, 2.1 and 12.1, "Nomenclature") and;

That this constant volume (Fd) or (Fc) is used in Method 19 and 20 as a ratio of

combustion gas volumes to heat inputs (volume/MMBtu) and is called an F-factor

(40 CFR 60 Appendix, 2.1 and 12.1, "Nomenclature");

That the F-factor must be in scf/million Btu (40 CFR 60 Appendix, 12.2);

That Hg = the *Heat input* rate to the gas turbine from all fuels fired in the gas turbine, in

million Btu/hr (40 CFR 60, Appendix, 12.1, "Nomenclature");

That pursuant to 40 CFR 60, Appendix, 12.2.8.1.2, Suitable methods shall be used to

determine the heat input rates (Hg) to the gas turbine;

That the term “*heat input*” means the *total gross* calorific value (where gross calorific value is measured by ASTM Method D2015-66, D240-64, or D1826-64) of all fuels burned pursuant to 40 CFR 52.01 (g);

That a Horsepower (Hp) is equivalent to raising 33,000 pounds one foot per minute, or 550 pounds one foot per second (AP-42, Appendix A).;

That a “brake” horsepower is equivalent to the above Hp, the reference “brake” or “shaft” being an indication of *net* power in the application (Definition of Brake Horsepower, attached).;

That the Vendor’s Manufacturing Data concerning NOx emissions for Engine 2601, a 6500 Hp natural gas fired turbine at FGT’s facility in Lecanto, is *0.622 grams NOx* per brake horsepower—hour (Final Application to Construct CS 26, Appendix D, page D-5, April 1993, attached).;

That 1 gram = 2.205E-3 pounds (avdp) and that 1 Hp-hr = 2543 Btu (mean). (AP-42, Appendix A, “Conversion Factors”).;

That an Emission Factor in lbs/hour is derived from a Pollutant in grams/bhp-hr, the latter units being the fundamental number guaranteed by the manufacturer,

That the equation to convert the manufacturer’s data in grams/bhp-hr to the applicable standard in lbs/hr is a simple application of common unit conversion factors;

That the equation to convert the manufacturer’s data in grams/bhp-hr to lbs/hr is as follows:

$$\frac{.622 \text{ grams}}{\text{bhp-hr}} \times \frac{.002205 \text{ lbs}}{1 \text{ gram}} \times \frac{1 \text{ Hp-hr}}{2543 \text{ Btu}} = \frac{.000000539 \text{ lbs}}{\text{Btu}} \times \frac{1 \text{ MMBtu}}{1 \text{ MMBtu}} = \frac{.539 \text{ lbs}}{\text{MMBtu}}$$

Vendor’s EF NOx/net Hp (F.App.,D-5)	Conversion grams to lb. (AP-42)	Conversion of Bhp-hr to Btu (AP-42)	answer in lbs/Btu (net EF)	multiply by MMBtu (1) EF (derived from net hp)	answer in lb/MMBtu
---	---------------------------------------	---	----------------------------------	--	-----------------------

That the Manufacturer's maximum *heat input* for engine 2601 is 59.6 MMBtu per hour according to the Final Application CS 26, p. D-5, attached;

That therefore, the Manufacturer's NO_x emissions factor (EF) in lbs/MMBtu (.539) when applied to the *gross heat input* (59.6) yields the Potential to Emit for unit 2601 as follows:

$$\frac{.539 \text{ lbs}}{\text{MMBtu}} \times \frac{59.6 \text{ MMBtu}}{\text{hr}} = \frac{32.1 \text{ lbs}}{\text{hr}} \times \frac{24 \text{ hrs} \times 365 \text{ days}}{2000 \text{ lbs}} = 140.6 \text{ tons/yr.}$$

That therefore a 6500 Hp engine, similar to but smaller than those to be installed at CS 27, has the Potential to Emit NO_x equal to 140.6 tons per year per unit;

That, rather than multiply by *heat input (gross)* in MMBtus/hr, FGT has, in the Final Application for CS 26, replaced heat input with brake horsepower (6500 bhp), which is a *net energy* unit (see Final Application CS 26, p. D-7, attached);

That Method 19 and 20 specifically requires that heat input, i.e. gross energy combusted, be used to calculate NO_x emitted in lbs/hr, as stated above;

That by using 6500 bhp (net energy) instead of 59.6 MMBtu/hr (heat input), FGT insures that the vendor's emission factor will be applied to only a fraction of engine combustion activity;

That therefore FGT has misrepresented the Potential To Emit of engine 2601 as being "8.92 lbs/hour" (see p. D-8) when in fact the Potential to Emit is 32 lbs/hour, as above.;

That the emissions from a larger gas turbine (7200 Hp) cannot be smaller by over 3 times the emissions from a comparable unit such as engine 2601 (6500 Hp);

That if 2 engines comparable to engine 2601 are installed in Thonotosassa, the facility has the Potential to Emit 280 tons per year N0x;

That therefore FGT has avoided PSD pre-construction reviews as mandated by Chapter 62, F.A.C., as well as on-going Major Source reporting and monitoring requirements;

That the revised CS 26 Annual Operating Report (2000), p. 8, "Calculations" (attached), demonstrates an equation for N0x emissions that is invalid and does not substantiate the alleged N0x emission of 29.9 tons/year;

That thus FGT has and is repeatedly misrepresenting Natural Gas as a cleaner fuel than it really is to avoid regulations that protect the residents of Thonotosassa, including the petitioners, and;

That FGT facilities throughout the Phase III through V Expansion Project are thus fraudulently classified as "synthetic minor [sic] sources" on the applications for Air Construction Permits, when in fact, by "vendor's data," the Potential to Emit N0x makes such facilities major Title V sources as demonstrated above;

That an original and a true copy of this Proposed Finding of Fact 1 by the Petitioners has been sent by certified United States Mail to Anne Longman, Edwin A. Steinmeyer, John W. Forehand, counsel for Respondent FGT, at LEWIS, LONGMAN & WALKER, P.A., Post Office Box 10788 (32302), 125 South Gadsden Street, Suite 300, Tallahassee, Florida, 32301;

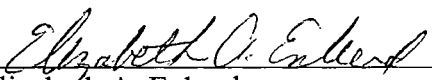
That an original and a true copy of this Proposed Finding of Fact 1 by the Petitioners has been sent by certified United States Mail to W. Douglas Beason, Assistant


General Counsel, FDEP, 3900 Commonwealth Boulevard, Mail Station 35,
Tallahassee, Florida, 32399-3000;

That NOTICE of the Proposed Finding of Fact 1 is hereby given to the Respondents FGT
and FDEP, this 4th day of June 2002;

That therefore the Petitioners respectfully request that the Honorable Judge J. Lawrence
Johnston find that *The Potential To Emit* for units 2701/2702 (7200 Hp) is thus
fraudulently understated as 5.6 lbs/ hr in the Draft Permit for CS 27, whereas the
true Potential To Emit is at least 30 lbs/hr pursuant to the applicable method.

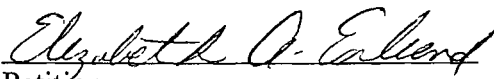
Dated the 4th day of June, 2002.


Elizabeth A. Enlund
Post Office Box 778
Thonotosassa, FL 33592-0778


David A. Pickering
Post Office Box 778
Thonotosassa, FL 33592-0778

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of the foregoing was served by U.S.
Mail on Anne Longman, Ed Steinmeyer, John Forehand, counsel for FGTC at LEWIS,
LONGMAN & WALKER, P.A., 125 South Gadsden Street, Suite 300, Post Office Box 10788
(32302), Tallahassee, FL, 32301 and W. Douglas Beason, Assistant General Counsel,
Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station 35,
Tallahassee, FL, 32399-3000 this 4th day of June 2002.


Petitioner

1. Definition of Brake Horsepower

1. Federal Aviation Administration definitions:

“Brake horsepower means the power delivered at the propeller shaft (main drive or main output) of an aircraft engine.”

URL: www.faa.gov

2. “Engine output shaft power will be measured on test as brake power

[BP]...Because of pumping, friction, and heat losses, BP will always be less than the IP [indicated power]...” Archer, 195.

3. “The output power P (= brake power BP = shaft power SP)” Archer, 197.

4. “a brake power output BP of 240 bhp [is equivalent to] (179 kW)” Archer, 198.

5. Brake/shaft power is relevant to piston engines. Index, Archer 576-577.

Archer, R. Douglas and Maida Saarlax. Introduction to Aerospace Propulsion. Upper Saddle River; New Jersey: Prentice Hall, 1996. pp. 16, 195-198, 576-577.

6. “More than 50% of the shaft horsepower is needed to drive the internal compressor and the balance of recovered shaft horsepower is available to drive an external load.” AP-42, 3.1-1.

Compilation of Air Pollutant Emission Factors AP-42. Fifth Edition, Volume I: Stationary Point and Area Sources. Chapter 3: Stationary Internal Combustion Sources. Update 2001. Available at URL: <http://www.epa.gov/ttn/chief/ap42/ch03/>

**CRITERIA POLLUTANT
EMISSION CALCULATIONS**

MAXIMUM HEAT INPUT:

COMPRESSOR ENGINE:

Engine No. 2601:

Fuel Heating Value	= 1,040 Btu/scf
Engine Rating	= 6,500 bhp
Brake Specific Fuel Consumption	= 9,169 Btu/bhp-hr
Maximum Heat Input = MMBtu/Hr	= (Btu/bhp-hr * hp)/10 ⁶ = (9,169 * 6,500)/10 ⁶ = 59.60 MMBtu/hr
Gas Consumption = MMscf/hr	= (59.60 MMBtu/hr/1040 Btu/CF) = 0.057 MMscfh

POLLUTANT EMISSION FACTORS FOR SOLONOX TURBINE:

COMPRESSOR ENGINES:

Engine No. 2601:

NORMAL OPERATION:

NO _x :	0.622 grams/bhp-hr	Manufacturer's Data
CO:	0.451 grams/bhp-hr	Manufacturer's Data
UHC:	0.26 grams/bhp-hr	Manufacturer's Data
NMHC:	0.026 grams/bhp-hr	(10% of UHC)
SO ₂ :	10 grains/100 CF	Contract Limit on Sulfur Content
	0.114 grams/bhp-hr	
PM:	5 lbs/10 ⁶ CF	Table 1.4-1, AP-42
	0.020 grams/bhp-hr	

NO_x EMISSIONS**COMPRESSOR ENGINES****Engine No. 2601:****NORMAL OPERATION:**

$$\begin{aligned}\text{lb NO}_x/\text{hr} &= (\text{grams/bhp-hr}) * (0.002205 \text{ lb/gram}) * (\text{bhp}) \\ &= (0.622 \text{ grams/bhp-hr}) * (0.002205 \text{ lb/gram}) * (6,500 \text{ bhp}) \\ &= 8.92 \text{ lb/hour}\end{aligned}$$

$$\begin{aligned}\text{tons NO}_x/\text{yr} &= (\text{lb NO}_x/\text{hr}) * (8760 \text{ hr/yr}) / (2000 \text{ lb/ton}) \\ &= (8.92 \text{ lb/hr}) * (8760 \text{ hr/yr}) / (2000 \text{ lb/ton}) \\ &= 39.05 \text{ tons/year}\end{aligned}$$

WORST CASE:

$$\begin{aligned}\text{lb NO}_x/\text{hr} &= (\text{grams/bhp-hr}) * (0.002205 \text{ lb/gram}) * (\text{bhp}) \\ &= (0.639 \text{ grams/bhp-hr}) * (0.002205 \text{ lb/gram}) * (6,500 \text{ bhp}) \\ &= 9.15 \text{ lb/hour}\end{aligned}$$

Emissions Summary:

NORMAL OPERATION:

lb NO_x/hr = 8.92 lb NO_x/hr

tons NO_x/yr = 39.05 TPY NO_x

WORST CASE:

lb NO_x/hr = 9.15 lb NO_x/hr

Facility ID : 0170035

Emissions Unit ID : 001

SCC : 2-02-002-01

E. EMISSIONS INFORMATION BY PROCESS/FUEL

(1) PROCESS/FUEL INFORMATION

1. SCC 2-02-002-01	2. Description of Process or Type of Fuel Internal Combustion Engines Natural Gas Industrial Turbine	
3. Annual Process or Fuel Usage Rate 162.32	4. Ozone Season Daily Process or Fuel Usage Rate 0.5521	5. SCC Unit Million Cubic Feet Burned
6. Fuel Average % Sulfur	7. Fuel Average % Ash	8. Fuel Heat Content (mmBtu/SCC Unit) 1040

(2) EMISSIONS INFORMATION

1. Pollutant * CO Carbon Monoxide	CAS No. 630-08-0	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year) 11.072169	3. Ozone Season Daily Emissions (lb/day) 71.354661	4. Emissions Method Code 5
5. Emissions Calculation (Show separately both annual and daily emissions calculations) Annual Emissions (Ton/Year) 11.072169 = EF g/hp-hr 0.45 * Unit bhp 6500 * Total Annual Operation (Hour/Year) 3434 / (g/lb 453.59 * 2000) Ozone Season Daily Emission (Lbs/Day) 71.354661 = (EF g/hp-hr 0.45 / g/lb 453.59) * Unit bhp 6500 * O3 Season hours 1018 / 92		

1. Pollutant * NOX Nitrogen Oxides	CAS No. 10102-44-0	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year) 15.254988	3. Ozone Season Daily Emissions (lb/day) 98.310867	4. Emissions Method Code 5
5. Emissions Calculation (Show separately both annual and daily emissions calculations) Annual Emissions (Ton/Year) 15.254988 = EF g/hp-hr 0.62 * Unit bhp 6500 * Total Annual Operation (Hour/Year) 3434 / (g/lb 453.59 * 2000) Ozone Season Daily Emission (Lbs/Day) 98.310867 = (EF g/hp-hr 0.62 / g/lb 453.59) * Unit bhp 6500 * O3 Season hours 1018 / 92		

**FGT Station 26 LeCanto
2000 AOR Calculations**

Operating Hours/Fuel Use				Emission Calculations							
Engine Number:		2601		Fuel Use				Annual Emissions (Tons per Year)			
Operating Hrs./Fuel Use	Hours	MMcf	Unit	2000 Operating Hours	MMcf	Hp	NOx	CO	VOC	SO2	PM
1999 Dec	535	26.857	2601	6741	585.50	6500	29.9	21.7	12.6	8.4	1.46
2000 Jan	589	49.600	Daily Calculations During the Ozone Season June 1 through August 31								
2000 Feb	606	49.400	Fuel Use				Daily Emissions (Pounds per Day)				
2000 Mar	711	47.930	2601	2138	146.880	6500	206.5	149.9	86.6	45.6	7.98
2000 Apr	690	47.900	Emission Factors for Engines 2601								
2000 May	676	47.750	Pollutant	Value	Units	Code					
2000 Jun	687	49.400	NOx	0.62	gm/hphr	5					
2000 Jul	713	48.680	CO	0.45	gm/hphr	5					
2000 Aug	738	48.800	VOC	0.26	gm/hphr	5					
2000 Sep	669	47.800	SO2	0.1	grain S/cf	2	Mass balance				
2000 Oct	131	49.700	PM	5	Lbs/MMcf	4	AP-42 Table 1.4-1 factor at time of permitting				
2000 Nov	309	45.170	Fuel Heat Value								
2000 Dec	222	53.370	1040 Btu/scf								
Total Operating Hours				Equations							
Year 2000	6741	585.500	Emissions (CO, NOx, VOC) = (emission factor in gm/hphr) * (2000 engine operating hours) * (Hp) / (463.6 gm/lb * 2000 lb/ton)								
Dec 99 thru Nov 00	7054	558.987	Emissions (SO2) = (emission factor in Grains S/cf) * (2000 engine operating hours) * (64 lbs SO2/32 lb S) / (7000 grain/lb * 2000)								
Percent Operation by Quarter				Emissions (PM, PM10) = (emission factor in lbs/MMcf) * (MMcf) / (2000 lb/ton)							
Dec 99 - Feb 00	24.53	22.52	REVISED								
Mar 00 - May 00	29.44	25.69									
Jun 00 - Aug 00	30.31	26.28									
Sep 00 - Nov 00	15.72	25.52									
Total	100.00	100.00									

STATE OF FLORIDA
DIVISION OF ADMINISTRATIVE HEARINGS

ELIZABETH A. ENLUND and
DAVID A. PICKERING,

Petitioners,

COPY

Vs.

DOAH Case No.: 02-1678

FLORIDA GAS TRANSMISSION
COMPANY and DEPARTMENT OF
ENVIRONMENTAL PROTECTION,

Respondents.

_____ /

PETITIONERS' PROPOSED FINDING OF FACT 2

Comes now the Petitioners Elizabeth A. Enlund and David A. Pickering, to make the following Proposed Finding of Fact 2:

That pursuant to 40 CFR 60.335 (c) (3), Method 20 shall be used to determine Nitrogen Oxide concentrations.;

That pursuant to 40 CFR 60, Appendix, Method 20, NOx emissions in lbs/MMBtu (E) can be calculated using the following Equation 20-6:

$$E = (Cd) (Fd) \frac{20.9}{20.9 - \%O_2}$$

where Cd is the observed NOx concentration on a dry basis,

where Fd is 8740 dscf/MMBtu for Natural Gas, from Table I, "F Factors For

Various Fuels." Summary for Determining Emissions From Combustion Sources,

July 1976.

Where %O2 is as measured by analyzer, dry basis.

That engine unit 2602 at the FGT Lecanto Facility is a Cooper-Rolls 501-KC7-DLE simple cycle combustion turbine, the identical model to be installed at CS 27, That therefore relevant process and emissions data is available in the Compliance Test Report prepared by Cubix Corporation, August, 2001;

That on page 7 in the Summary of Results, Table 3, of said Compliance Test Report (attached), measured emissions average 11.17 ppm, dry basis but uncorrected for temperature and pressure.;

That on said page 7, the %O2 by volume, dry basis, is 15.48%;

That in said Compliance Test Report 11.17 ppmvd is equal to Cd, the observed N0x concentration on a dry basis;

That therefore by Method 20, equation 20-6 can be applied as follows:

$$E (N0x) \text{ as } \frac{\text{lbs}}{\text{MMBtu}} = 11.17 \times \frac{8740 \text{ dscf}}{\text{MMBtu}} \times \frac{20.9}{20.9-15.47}$$

$$E (N0x) = .376 \text{ lbs/MMBtu}$$

That at CS 27 each proposed identical Cooper Rolls 501-KC7-DLE model will have a heat input of 63 MMBtu/hr;

That therefore, by Method 20 above, the Compliance Test indicates that actual N0x emissions at CS 27 will be: .376 lbs/MMBtu X 63 MMBtu/hr = 23.7 lbs/ hr;

That therefore as indicated by the performance of engine 2602 the actual N0x emissions at CS 27 will be:

$$23.7 \text{ lbs/hr} \times 24 \text{ hrs} \times 365 \text{ days} \times \frac{1 \text{ ton}}{2000 \text{ lbs}} = 103.7 \text{ tons per year per unit;}$$

That therefore CS 27 will be a major source of N0x and subject to 40 CFR Part 70 and Title V of the Clean Air Act;

That the present Draft Air Construction Permit for CS 27 is inapplicable to a major source of NO_x;

That Respondent FGT uses "vendor EF (lbs/hr) 5.6" in the Annual Operating Report for CS 26, 2001, p. 10 (attached), to misrepresent actual emissions of NO_x from the Cooper Rolls model identical to the units to be installed at CS 27;

That Respondent FGT in the CS 27 Application for Air Construction Permit, Attachment A, A-16 (attached), quotes potential emissions as 5.7 lbs/hr as referenced from "vendor's data," when in fact such number is a fabrication and, as seen above, is contradicted by Method 20;

That Respondent FGT thereby has avoided more stringent pre-construction review and public notice requirements;

That therefore by such misrepresentation of "vendor's data" FGT has violated the rights, health and safety of local residents who depend upon FDEP to obtain accurate essential data in order to enforce the Federal Clean Air Act, the Florida State Implementation Plan under Chapter 62, F.A.C, and as mandated by 403 F.S.

That an original and a true copy of this Proposed Finding of Fact 2 by the Petitioners has been sent by certified United States Mail to Anne Longman, Edwin A.

Steinmeyer, John W. Forehand, counsel for Respondent FGT, at LEWIS, LONGMAN & WALKER, P.A., Post Office Box 10788 (32302), 125 South Gadsden Street, Suite 300, Tallahassee, Florida, 32301;

That an original and a true copy of this Proposed Finding of Fact 2 by the Petitioners has been sent by certified United States Mail to W. Douglas Beason, Assistant

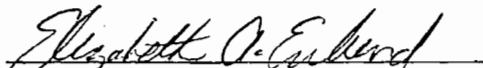
General Counsel, FDEP, 3900 Commonwealth Boulevard, Mail Station 35,
Tallahassee, Florida, 32399-3000;

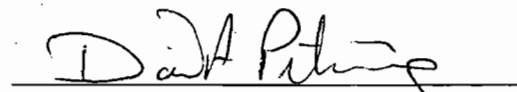
That NOTICE of the Proposed Finding of Fact 2 is hereby given to the Respondents FGT
and FDEP, this 4th day of June 2002;

That therefore the Petitioners respectfully request that the Honorable Judge J. Lawrence
Johnston find that Respondent FGT fraudulently applied for a “synthetic minor
[sic] source” Air Construction Permit because FGT knew, or should have known
from its own compliance report from an identical unit, engine 2602, that
2701/2702 will emit a total of 206 tons per year, and thus CS 27 will exceed the
major source threshold as found in the U.S. Clean Air Act, 42 USC.s 7401 et. seq.,
and as defined pursuant to 62-213.420(3)(c) 1., F.A.C., “Major Source
Thresholds,” and 62-210.200 (157), F.A.C., and 62-210.200(159)(b), F.A.C.;

That therefore the Petitioners respectfully request that the Honorable Judge J. Lawrence
Johnston find that Respondent FGT failed to apply Method 20 at CS 26 in
violation of the 40 CFR 60.335 (c) (3) and applicable Florida law.

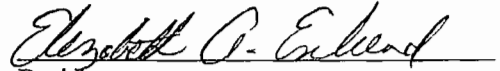
Dated the 4th day of June, 2002.


Elizabeth A. Enlund
Post Office Box 778
Thonotosassa, FL 33592-0778


David A. Pickering
Post Office Box 778
Thonotosassa, FL 33592-0778

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of the foregoing was served by U.S. Mail on Anne Longman, Ed Steinmeyer, John Forehand, counsel for FGTC at LEWIS, LONGMAN & WALKER, P.A., 125 South Gadsden Street, Suite 300, Post Office Box 10788 (32302), Tallahassee, FL, 32301 and W. Douglas Beason, Assistant General Counsel, Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, FL, 32399-3000 this 4th day of June 2002.


Petitioner

Emissions Unit Information Section 1 of 6

Pollutant Detail Information Page 1 of 6

D. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION

Potential Emissions

1. Pollutant Emitted: NOX		2. Pollutant Regulatory Code: EL	
3. Primary Control Device Code:	4. Secondary Control Device Code: NA	5. Total Percent Efficiency of Control:	
6. Potential Emissions: 5.7 lb/hour 25.0 tons/year		7. Synthetically Limited? []	
8. Emission Factor: 5.7 lb/hr Reference: Vendor's data		9. Emissions Method Code: 5	
10. Calculation of Emissions (limit to 600 characters): (5.7 lb/hr)(1 ton/2000 lb)(8760 hr/1 yr) = 24.97 tons/year			
11. Pollutant Potential Emissions Comment (limit to 200 characters): Based on vendor's data. See Attachment C.			

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions: NA
3. Requested Allowable Emissions and Units: 25 ppmv	4. Equivalent Allowable Emissions: 5.7 lb/hour 25.0 tons/year
5. Method of Compliance (limit to 60 characters): Initial performance test.	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): 40 CFR 60.332(a)(2) limits NOX emissions to 175 ppmv.	

E. EMISSIONS INFORMATION BY PROCESS/FUEL

(1) PROCESS/FUEL INFORMATION

1. SCC 2-02-002-01	2. Description of Process or Type of Fuel Internal Combustion Engines Natural Gas Industrial Turbine	
3. Annual Process or Fuel Usage Rate 229.2	4. Ozone Season Daily Process or Fuel Usage Rate 0.8598	5. SCC Unit Million Cubic Feet Burned
6. Fuel Average % Sulfur	7. Fuel Average % Ash	8. Fuel Heat Content (mmBtu/SCC Unit) 1040

(2) EMISSIONS INFORMATION

1. Pollutant CO Carbon Monoxide	CAS No. 630-08-0	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year) 15.89462	3. Ozone Season Daily Emissions (lb/day) 118.782391	4. Emissions Method Code 5
5. Emissions Calculation (Show separately both annual and daily emissions calculations) Annual Emissions (Ton/Year) 15.89462 = Vendor EF (lbs/hr) 6.86 * Total Annual Operation (Hour/Year) 4634 / 2000 Ozone Season Daily Emission (Lbs/Day) 118.782391 = Vendor EF (lbs/hr) 6.86 * Total Ozone Season Hours 1593 / 92 Based on AP-42, 5th Ed. Supplement F, 07/00, Table 3.2-2		

1. Pollutant * NOX Nitrogen Oxides	CAS No. 10102-44-0	<input type="checkbox"/> Below Threshold <input type="checkbox"/> Not Emitted
2. Annual Emissions (ton/year) 12.9752	3. Ozone Season Daily Emissions (lb/day) 96.965217	4. Emissions Method Code 5
5. Emissions Calculation (Show separately both annual and daily emissions calculations) Annual Emissions (Ton/Year) 12.9752 = Vendor EF (lbs/hr) 5.6 * Total Annual Operation (Hour/Year) 4634 / 2000 Ozone Season Daily Emission (Lbs/Day) 96.965217 = Vendor EF (lbs/hr) 5.6 * Total Ozone Season Hours 1593 / 92 Based on AP-42, 5th Ed. Supplement F, 07/00, Table 3.2-2		

*: Pollutant subject to emissions limiting standard or emissions cap
DEP Form No. 62-210.900(5) - Form 10
Effective: 2/11/99

**TABLE 3: Summary of Results
Unit 2602**

Full Load Testing

Company: Florida Gas Transmission Company
 Facility: Compressor Station No. 26
 Location: Lecanto, Citrus County, Florida
 Source: Cooper-Rolls Model 501-KC7-DLE
 Technicians: LJB, RPO

Test Number	2602-C-10	2602-C-11	2602-C-12		FDEP Permit Limits
Date	7/12/01	7/12/01	7/12/01		
Start Time	13:10	14:22	15:31		
Stop Time	14:10	15:22	16:31		
Turbine/Compressor Operation	Full Load			Averages	
Gas Producer Speed (NGP)	14658	14647	14652	14652.3	
Power Turbine Speed (NPT)	9527	9458	9479	9487.9	
Turbine Load (Engine Horsepower, Hp)	6,360	6,356	6,394	6,370	
Percent Load (% of maximum output = 7009 Hp)	90.7%	90.7%	91.2%	90.9%	
Engine Compressor Discharge Pressure (PCD, psig)	165	165	165	164.9	
Turbine Air Inlet Temperature (T-1, °F)	84.8	86.2	85.4	85.5	
Turbine Air Inlet Duct Losses ("H ₂ O)	0.50	0.51	0.50	0.50	
Power Turbine Inlet Temperature (T-5, °F)	1388	1388	1388	1388	
Gas Compressor Suction Pressure (psig)	877	875	867	872.7	
Gas Compressor Suction Temperature (°F)	75.0	75.0	75.0	75.0	
Gas Compressor Discharge Pressure (psig)	1115	1098	1080	1097.8	
Gas Compressor Discharge Temperature (°F)	112	111	110	110.9	
Compressor Flow (MMSCFD)	471	494	508	491.1	
Turbine Fuel Data (Natural Gas)					
Fuel Heating Value (Btu/SCF, HHV)	1044.0	1044.0	1044.0	1044	
Fuel Specific Gravity	0.5870	0.5870	0.5870	0.5870	
O ₂ "F-factor" (DSCFex/MMBtu @ 0% excess air)	8642	8642	8642	8642	
CO ₂ "F-factor" (DSCFex/MMBtu @ 0% excess air)	1027	1027	1027	1027	
Total Sulfur in Fuel (grains S per 100 SCF of NG)	0.042	0.042	0.042	0.042	10
Fuel Flow (MSCFH)	54.78	54.76	54.85	54.80	
Heat Input (MMBtu/hr, Higher Heat Value)	57.19	57.17	57.27	57.21	
Heat Input (MMBtu/hr, Lower Heat Value)	51.47	51.45	51.54	51.49	
Ambient Conditions					
Atmospheric Pressure ("Hg)	29.86	29.85	29.84	29.85	
Temperature (°F): Dry bulb	89.6	89.9	88.6	89.4	
(°F): Wet bulb	82.1	81.7	80.8	81.5	
Humidity (lbs moisture/lb of air)	0.0214	0.0209	0.0204	0.0209	
Measured Emissions					
NO _x (ppmv, dry basis)	11.25	11.11	11.16	11.17	
NO _x (ppmv, dry @ 15% O ₂)	12.2	12.1	12.1	12.2	25.0
NO _x (ppmv @ 15% O ₂ , ISO Day)	15.1	14.8	14.7	14.9	190
O ₂ (% volume, dry basis)	15.47	15.48	15.48	15.48	
CO ₂ (% volume, dry basis)	3.15	3.18	3.21	3.18	
Visible Emissions (%Opacity)	-	0	-	0	10
F _o (fuel factor, range = 1.600-1.836 for NG)	1.72	1.70	1.69	1.71	
Stack Volumetric Flow Rates					
via Pitot Tube Flow Rates (SCFH, dry basis)	2.52E+06	2.31E+06	2.33E+06	2.39E+06	
via O ₂ "F _c -factor" (SCFH, dry basis)	1.90E+06	1.91E+06	1.91E+06	1.91E+06	
via CO ₂ "F _c -factor" (SCFH, dry basis)	1.87E+06	1.85E+06	1.83E+06	1.85E+06	
Calculated Emission Rates (via EPA Method 19)					
NO _x (lbs/hr)	3.39	3.07	3.10	3.19	5.60

Summary of Results

STATE OF FLORIDA
DIVISION OF ADMINISTRATIVE HEARINGS

ELIZABETH A. ENLUND and
DAVID A. PICKERING,

Petitioners,

COPY

Vs.

DOAH Case No.: 02-1678

FLORIDA GAS TRANSMISSION
COMPANY and DEPARTMENT OF
ENVIRONMENTAL PROTECTION,

Respondents.

PETITIONERS' FINDING OF FACT 3

Comes now the Petitioners to make the following Proposed Finding Of Fact 3;
That pursuant to 40 CFR 60.335 (c) (attached), the owner or operator "shall" determine
compliance with the Nitrogen Oxide standards in 40 CFR 60.332 (NSPS) by
using the following equation:

$$\text{NO}_x = (\text{NO}_x \text{ observed, ppmvd}) \times (\text{reference combustor inlet absolute pressure in mmHg, i.e. 760 mmHg} / \text{observed combustor inlet absolute pressure at test, in mmHg}) \times (0.5) \times (e) \times (19) \times (\text{observed humidity of ambient air, in grams} - 0.00633) \times (288 \text{ degrees Kelvin} / \text{ambient temperature in degrees Kelvin}) \times (1.53);$$

That the FGT unit 2602, located at CS 26 in Lecanto, is a Cooper-Rolls 501-KC7-DLE
simple cycle compression turbine and is the identical model to those to be
installed at CS 27;

That said unit 2602 underwent compliance testing in July, 2001;

That the data found in the Compliance Test Report prepared by Cubix Corporation, August, 2001, pursuant to the Air Construction Permit 0170035-005-AC, is representative of the performance of the units to be installed at CS 27;

That in Table 3, "Summary of Results Unit 2602 Full Load Testing" on page 7 of said report:

- The gas compressor suction pressure is *872.7 pounds per square in of Hg*
- The measured emissions of N0x (ppmv, dry basis) is 12.2
- The O2 "F-factor" (DSCF ex / MMBtu, 2 0% excess air) is 8642
dscf/MMBtu
- The CO2 "F-factor" (DSCF ex / MMBtu, 2 0% excess air) is 1027
dscf/MMBtu
- The ambient temperature is 89.4 degrees F
- The ambient humidity in lb moisture per lb air is .0209 lb/lb air
- The stack volumetric flow rate is 2.39 MMDSCF per hour;

That the above data when applied in equation 40 CFR 60.335 (c) (1) will demonstrate probable emissions of N02 at CS 27;

That the observed combustor inlet absolute pressure (P-obs), 872.7 psig, must be converted to units identical to the reference combustor inlet absolute pressure (P-ref) as stated in 40 CFR 60.335 (c) (1);

That 101.3 kilopascals = 760 mmHg, and;

That 1 lb = 453.59 grams;

That 872.7 psig X (760 mmHg /14.7 psig) i.e. (1 ATM / 1 ATM) converts to 45,119 mmHg;

That $\frac{760 \text{ mmHg}}{45,119 \text{ mmHg}} = \frac{P\text{-ref}}{P\text{-obs}} = .01684$;

That the inverse of .01684 = 59.37;

That therefore the compression section of unit 2602 is compressing inlet air to almost 60 times (59.37) the ambient air pressure;

That according to AP-42, 3.1.2, "Process Description" (attached), ambient air is drawn in and compressed "up to 30 times ambient pressure";

That thus a question arises about FGT's operating safety and methods, particularly considering the correspondence between FGT and FDEP that indicate engine failures due to stress cracks, i.e. the so-called "major maintenance overhauls" (see the 4 letters attached to Petitioners first Interrogatories);

That an ambient temperature of 89.4 degrees F is equal to 305 degrees Kelvin;

That the observed humidity, .0209 lbs, must be converted to grams to be compatible with the constants in the equation, as stated in 40 CFR 60.335 (c) (1); "Ho=observed humidity of ambient air, g H2O/g air.";

That therefore .0209 lbs must be converted to grams as follows:

$$0.0209 \text{ lbs} \times 453.6 \text{ grams} / 1 \text{ lb} = 9.48 \text{ grams};$$

That therefore, employing the data from engine 2602 in the equation from 40 CFR 60.335

(c)(1):

$$\begin{aligned} \text{N0x (EPA)} &= (12.22 \text{ ppmvd}) \times \left(\frac{760 \text{ mmHg}}{45,119 \text{ mmHg}} \right) \times (0.5) \times (e) \\ & \text{(Measured N0x; and)} \\ & \text{(Converted to ISO)} \\ & \text{(Conditions, i.e. 1 ATM)} \quad \times (19) \times (9.48 \text{ grams} \rightarrow .00633) \\ & \text{(And 59 degrees F. from)} \\ & \text{(60 ATMs and 1000 degrees)} \quad \times \left(\frac{288 \text{ degrees Kelvin}}{305 \text{ degrees Kelvin}} \right) \times (1.53) = 72.7 \text{ ppmvd} \\ & \text{(F., exhaust conditions)} \end{aligned}$$

That considering the sampled gases are greater than 1000 degrees F., the adjustment from 12.22 to the applicable standard at ISO conditions of an alleged + 24%, to 15.1 ppmvd (2602 Compliance Test, page 6, Appendix B, "Example Calculations," attached), defies common sense;

That therefore the equation used by FGT in Appendix B, "Example Calculations is not an equivalent method subject to approval from the Administrator;

That the aberrant equation used instead of the one specified in 40 CFR 60.335 (c)(1) is not authorized nor noticed in the Federal Register as required by 40 CFR 60.335 (f)(1);

That 72.7 ppmvd can be converted to lbs/scf using 40 CFR 60, Appendix Method 19, Table 19.1, "Conversion Factors for Concentration," ---"1 ppm N0x = 1.194 E -7 lbs/SCF of N0x";

That therefore, $72.7 \text{ ppmvd} \times \frac{1.194 \text{ (E-7) lbs}}{\text{SCF}} = \frac{8.68 \text{ (E-6) lbs}}{\text{SCF}} \times \frac{2.39 \text{ (E+6) SCF}}{\text{hour}}$

ISO adjusted Measured N0x	Conversion Factor	Emissions per volume in scf	X	Measured total Volumetric Flow
------------------------------	----------------------	--------------------------------	---	-----------------------------------

= 20.75 lbs / hour

That 20.75 lbs/hour is equal to 91 tons per year per unit;

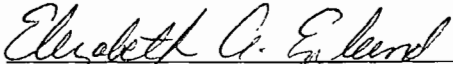
That therefore CS 27 is a Major Source for N0x because, by comparison with the identical model at the FGT facility in Lecanto, the compliance test demonstrates that 182 tons per year N0x will be emitted from the facility in Thonotosassa;

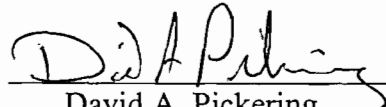
That hereby the Petitioners respectfully request that the honorable Judge J. Lawrence Johnston find that FGT has violated 40 CFR 60.335 (c), which is applicable to CS 27 under Subpart GG, and that by comparison to the identical model, engine 2602

in Lecanto, FGT knows or should have known that CS 27 will emit over 175 tons per year of NOx and ;

That therefore Respondent FGT is not entitled to a minor source air construction permit for CS 27.

Dated this 4th day of June, 2002.


Elizabeth A. Enlund
Post Office Box 778
Thonotosassa, FL 33592-0778


David A. Pickering
Post Office Box 778
Thonotosassa, FL 33592-0778

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of the foregoing was served by U.S. Mail on Anne Longman, Edwin Steinmeyer, John Forehand, counsel for FGTC at LEWIS, LONGMAN & WALKER, P.A., 125 South Gadsden Street, Suite 300, Post Office Box 10788 (32302), Tallahassee, FL, 32301 and W. Douglas Beason, Assistant General Counsel, Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, FL, 32399-3000 this 4th day of June 2002.


Petitioner

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Steinmeyer, John W. Forehand, counsel for Respondent FGT, at LEWIS, LONGMAN & WALKER, P.A., Post Office Box 10788 (32302), 125 South Gadsden Street, Suite 300, Tallahassee, Florida, 32301;

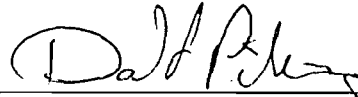
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General Counsel, FDEP, 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida, 32399-3000;

That NOTICE of the Proposed Finding of Fact 3 is hereby given to the Respondents FGT and FDEP, this 4th day of June 2002;



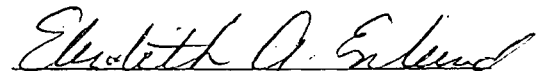
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Petitioner

Electronic Code of Federal Regulations

e-CFRTM

THIS DATA CURRENT AS OF THE FEDERAL REGISTER DATED MAY 30, 2002

40 CFR - CHAPTER I - PART 60

View Part**§ 60.335 Test methods and procedures.**

(a) To compute the nitrogen oxides emissions, the owner or operator shall use analytical methods and procedures that are accurate to within 5 percent and are approved by the Administrator to determine the nitrogen content of the fuel being fired.

(b) In conducting the performance tests required in § 60.8, the owner or operator shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided for in § 60.8(b). Acceptable alternative methods and procedures are given in paragraph (f) of this section.

(c) The owner or operator shall determine compliance with the nitrogen oxides and sulfur dioxide standards in §§ 60.332 and 60.333(a) as follows:

(1) The nitrogen oxides emission rate (NO_x) shall be computed for each run using the following equation:

$$NO_x = (NO_{x0}) (Pr/Po)^{0.5} e^{19(Ho - 0.00633) (288^\circ K / Ta)^{1.53}}$$

where:

NO_x = emission rate of NO_x at 15 percent O₂ and ISO standard ambient conditions, ppm by volume.

NO_x = observed NO_x concentration, ppm by volume at 15 percent O₂.

Pr = reference combustor inlet absolute pressure at 101.3 kilopascals ambient pressure, mm Hg.

Po = observed combustor inlet absolute pressure at test, mm Hg.

Ho = observed humidity of ambient air, g H₂O/g air.

e = transcendental constant, 2.718.

Ta = ambient temperature, °K.

(2) The monitoring device of § 60.334(a) shall be used to determine the fuel consumption and the water-to-fuel ratio necessary to comply with § 60.332 at 30, 50, 75, and 100 percent of peak load or at four points in the normal operating range of the gas turbine, including the minimum point in the range and peak load. All loads shall be corrected to ISO conditions using the appropriate equations supplied by the manufacturer.

(3) Method 20 shall be used to determine the nitrogen oxides, sulfur dioxide, and oxygen concentrations. The span values shall be 300 ppm of nitrogen oxide and 21 percent oxygen. The NOx emissions shall be determined at each of the load conditions specified in paragraph (c)(2) of this section.

(d) The owner or operator shall determine compliance with the sulfur content standard in § 60.333(b) as follows: ASTM D 2880-71, 78, or 96 shall be used to determine the sulfur content of liquid fuels and ASTM D 1072-80 or 90 (Reapproved 1994), D 3031-81, D 4084-82 or 94, or D 3246-81, 92, or 96 shall be used for the sulfur content of gaseous fuels (incorporated by reference-see § 60.17). The applicable ranges of some ASTM methods mentioned above are not adequate to measure the levels of sulfur in some fuel gases. Dilution of samples before analysis (with verification of the dilution ratio) may be used, subject to the approval of the Administrator.

(e) To meet the requirements of § 60.334(b), the owner or operator shall use the methods specified in paragraphs (a) and (d) of this section to determine the nitrogen and sulfur contents of the fuel being burned. The analysis may be performed by the owner or operator, a service contractor retained by the owner or operator, the fuel vendor, or any other qualified agency.

(f) The owner or operator may use the following as alternatives to the reference methods and procedures specified in this section:

(1) Instead of using the equation in paragraph (c)(1) of this section, manufacturers may develop ambient condition correction factors to adjust the nitrogen oxides emission level measured by the performance test as provided in § 60.8 to ISO standard day conditions. These factors are developed for each gas turbine model they manufacture in terms of combustion inlet pressure, ambient air pressure, ambient air humidity, and ambient air temperature. They shall be substantiated with data and must be approved for use by the Administrator before the initial performance test required by § 60.8. Notices of approval of custom ambient condition correction factors will be published in the Federal Register.

[54 FR 6675, Feb. 14, 1989, as amended at 54 FR 27016, June 27, 1989; 65 FR 61760, Oct. 17, 2000]



NO_x Correction to 15% O₂

refers to Test Run 2602-C-10

$$\begin{aligned} C_{NO_x} &= \text{observed NO}_x \text{ concentration} &= 11.25 \text{ ppmv} \\ C_{O_2} &= \text{concentration of oxygen} &= 15.47\% \text{ (from analyzer)} \end{aligned}$$

$$\begin{aligned} C_{NO_x@} &= \text{concentration of NO}_x \text{ corrected to 15\% excess O}_2 \\ &= \frac{(C_{NO_x} \times (20.9 - 15.0\% O_2))}{20.9 - C_{O_2}} \end{aligned}$$

$$= \frac{11.25 \times 5.9}{20.9 - 15.47}$$

$$C_{NO_x@} = 12.2(2) \text{ ppmv @15\% O}_2$$

EPA ISO-day Correction for NO_x

refers to Test Run 2602-C-10

$$\begin{aligned} H_{\text{obs}} &= \text{observed humidity of ambient air} &= 0.0214 \text{ (lbs H}_2\text{O/ lb air)} \\ C_{NO_x@} &= \text{concentration of NO}_x \text{ @15\%O}_2 &= 12.22 \text{ ppmv @15\% O}_2 \\ P_{\text{ref}} &= \text{reference combustor inlet pressure} &= 101.3 \text{ kpa} \\ P_{\text{obs}} &= \text{observed combustor inlet pressure} \\ &= (29.86 \text{ "Hg} - 0.5/13.6) \times 3.3864 \text{ kpa/"Hg} &= 100.993 \text{ kpa} \\ T_{\text{inlet}} &= \text{ambient temperature of inlet air} \\ &= (84.8 \text{ }^\circ\text{F} - 32 \text{ }^\circ\text{F}) \times (5/9) + 273.15 \text{ }^\circ\text{C} &= 302.48 \text{ }^\circ\text{K} \end{aligned}$$

$$NO_x(\text{EPA}) = NO_x \text{ concentration @ISO conditions}$$

$$= C_{NO_x@} \times \sqrt{\frac{P_{\text{ref}}}{P_{\text{obs}}}} \times \left(\frac{288 \text{ }^\circ\text{K}}{T_{\text{inlet}}} \right)^{1.53} \times 2.718^{19(H - 0.00633)}$$

$$= 12.22 \times \sqrt{\frac{101.3}{100.993}} \times \left(\frac{288}{302.48} \right)^{1.53} \times 2.718^{19(0.0214 - 0.00633)}$$

$$NO_x(\text{EPA}) = 15.1 \text{ ppmv @ 15\% O}_2 \text{ \& ISO Conditions}$$

NO_x Mass Emission Rate (lbs/hr)

Refers to Test Run #2602-C-10

C_{NO_x} = observed concentration of NO_x = 11.25 ppmv

MW_{NO_x} = 46.01 lb/lb-mole for nitrogen dioxide
for ideal gas, 385.15 SCF = 1.0 lb/mole

Q_d = 2.522×10^6 SCFH (from ave. pitot tube volumetric flow)

E_{NO_x} = mass emission rate of NO_x in (lb/hr)

$$= C_{NO_x} \times 10^{-6} \times Q_d \times \frac{MW_{NO_x}}{385.15}$$

$$= 11.25 \times 10^{-6} \times 2.522 \times 10^6 \times \frac{46.01}{385.15}$$

E_{NO_x} = 3.39 lbs/hr

AP-42, Fifth Edition, Volume I, Chapter 3
 Stationary Internal Combustion Sources
 URL: <http://www.epa.gov/epa/efc/efc/efc/ap42>

3.1 Stationary Gas Turbines

3.1.1 General¹

Gas turbines, also called "combustion turbines", are used in a broad scope of applications including electric power generation, cogeneration, natural gas transmission, and various process applications. Gas turbines are available with power outputs ranging in size from 300 horsepower (hp) to over 268,000 hp, with an average size of 40,200 hp.² The primary fuels used in gas turbines are natural gas and distillate (No. 2) fuel oil.³

3.1.2 Process Description^{1,2}

A gas turbine is an internal combustion engine that operates with rotary rather than reciprocating motion. Gas turbines are essentially composed of three major components: compressor, combustor, and power turbine. In the compressor section, ambient air is drawn in and compressed up to 30 times ambient pressure and directed to the combustor section where fuel is introduced, ignited, and burned. Combustors can either be annular, can-annular, or silo. An annular combustor is a doughnut-shaped, single, continuous chamber that encircles the turbine in a plane perpendicular to the air flow. Can-annular combustors are similar to the annular; however, they incorporate several can-shaped combustion chambers rather than a single continuous chamber. Annular and can-annular combustors are based on aircraft turbine technology and are typically used for smaller scale applications. A silo (frame-type) combustor has one or more combustion chambers mounted external to the gas turbine body. Silo combustors are typically larger than annular or can-annular combustors and are used for larger scale applications.

The combustion process in a gas turbine can be classified as diffusion flame combustion, or lean-premix staged combustion. In the diffusion flame combustion, the fuel/air mixing and combustion take place simultaneously in the primary combustion zone. This generates regions of near-stoichiometric fuel/air mixtures where the temperatures are very high. For lean-premix combustors, fuel and air are thoroughly mixed in an initial stage resulting in a uniform, lean, unburned fuel/air mixture which is delivered to a secondary stage where the combustion reaction takes place. Manufacturers use different types of fuel/air staging, including fuel staging, air staging, or both; however, the same staged, lean-premix principle is applied. Gas turbines using staged combustion are also referred to as Dry Low NO_x combustors. The majority of gas turbines currently manufactured are lean-premix staged combustion turbines.

Hot gases from the combustion section are diluted with additional air from the compressor section and directed to the power turbine section at temperatures up to 2600°F. Energy from the hot exhaust gases, which expand in the power turbine section, are recovered in the form of shaft horsepower. More than 50 percent of the shaft horsepower is needed to drive the internal compressor and the balance of recovered shaft horsepower is available to drive an external load.² Gas turbines may have one, two, or three shafts to transmit power between the inlet air compression turbine, the power turbine, and the exhaust turbine. The heat content of the exhaust gases exiting the turbine can either be discarded without heat recovery (simple cycle); recovered with a heat exchanger to preheat combustion air entering the combustor (regenerative cycle); recovered in a heat recovery steam generator to raise process steam, with or without supplementary firing (cogeneration); or recovered, with or without supplementary firing, to raise steam for a steam turbine Rankine cycle (combined cycle or repowering).

STATE OF FLORIDA
DIVISION OF ADMINISTRATIVE HEARINGS

ELIZABETH A. ENLUND and
DAVID A. PICKERING,

Petitioners,

Vs.

DOAH Case No.: 02-1678

COPY

FLORIDA GAS TRANSMISSION
COMPANY and DEPARTMENT OF
ENVIRONMENTAL PROTECTION,

Respondents.

PETITIONERS' PROPOSED FINDING OF FACT 4

Here comes the Petitioners, Elizabeth A. Enlund and David A. Pickering, to make the following proposed Finding of Fact 4:

That, even if the maximum expected emissions of Nitrogen oxides are no higher than 25 ppm, as alleged by Respondent FGT, such a level nevertheless exceeds the level of significant harm for NOx under 40 CFR 51.151;

That the level which results in significant harm is 2 ppm for a one hour exposure, and 0.5 ppm for a 24 hour exposure according to 40 CFR 51.151;

That therefore the alleged emissions of NOx from CS 27 exceed by over 12 times the level of significant harm for a one hour exposure, and;

That such emissions exceed by 50 times the level of significant harm for a 24 hour exposure;

That therefore any delay caused by a deficiency in the stack parameters and the consequent need to reconsider the permit is fully justified and necessary to protect human health and safety as required by 403.021 F.S.;

That the site on C.R. 579 demonstrates unusual topography that may concentrate pollutants and heat in certain pockets and directions;

That this ill effect may be heightened during the winter and spring months when dense fogs roll northward from the highest points of land towards Petitioners' property and blankets the town of Thonotosassa until late morning hours;

That the prevailing winds for many months of the year are from a south to southwesterly direction, which would cause the pollutants generated from this site to flow in the direction Petitioners' residence and property;

That the most populated areas of Thonotosassa are within a mile of this site and downwind from the proposed facility;

That Respondent FGT states that the proposed site is "near the city of Thonotosassa," whereas the site is in close proximity to the heart of a small rural town, less than ½ mile from Thonotosassa Park, a County Park which contains much used facilities for football, baseball, softball, little league, soccer, basketball and cheerleading, and also picnic pavilions, outdoor playground equipment, walking paths and a community center which has a children's daycare;

That the proposed site for CS 27 is approximately ¾ mile from Thonotosassa Elementary School, which is adjacent to the park;

That the site is about ¾ mile from the Thonotosassa Post Office and Public Library;

That Lake Thonotosassa, an environmentally sensitive but much appreciated community and recreational jewel, is about a mile to the northeast from this proposed compressor station site and is in the direction of the prevailing wind flow;

That pursuant to 403.021 (8), F.S., the department shall consider the total well-being of the public and shall not consider solely the ambient pollution standards when exercising its powers, if there may be danger of a public health hazard;

That because of all of the foregoing facts, there is the potential of a public health hazard if the air dispersion techniques are insufficient;

That Respondent FGT has been negligent in providing a plot plan and displays an ignorance of the sites topography and cultural sensitivity;

That specifically the plot plan, filed by FGT in the Final Application for an Air Construction Permit No. 0571279-001-AC, is not a plot plan for the site on C.R. 579 and therefore is a misrepresentation of fact (Final State App., Appendix B, map attached);

That the altitude for the base of the stack cannot be determined from the plot plan which was designed for the original Taylor Road site, let alone be determined from the plot plan from the Osceola site,

That the "Location Map," figure 1.1 from the Final State Application.doc, dated 1/04/02 (attached), has insufficient detail for the department to consider the health and safety of nearby residents as required by 403.021 (3) and (8), F.S., as can be seen by the Petitioners' enlarged map of the area (attached);

That as can be seen on the Petitioners' attached map referred to above the site may present a hazard to Airplanes as it is very near the flight path in and out of

Vandenburg Airport, yet the map provided by FGT neglected to include this significant feature;

That the Petitioners' topographical map (attached) not only portrays a nearby terrain feature that reaches an altitude of 143 feet above sea level, but also shows nearby residences not shown on Respondent FGT's maps, Figure 1, "FGT Phase V Expansion" (attached) from the May 21, 2001 Notice and DWG No. 471-V-12 (attached) from the Draft EIS and Draft Permit at EPC of Hillsborough County;

That the prevailing winds move from south-southeast towards north-northwest;

That *such local conditions will cause a downwash of excessive concentrations of heat and NO_x from a 61 foot stack into the town of Thonotosassa;*

That Jeff Koerner, FDEP New Source Review Section, continued to provide the 30-acre Taylor Road plot plan and insufficient topographical map as late as March 21, 2002, even when asked for the correct and complete information (see attached letter to Pat Kemp);

That the position of the 6 acre site on the 20 acre parcel cannot as of June 1, 2002, be determined from the information provided by the Respondent FGT;

That therefore the altitude and adequacy of the stack parameters as listed in section 3 of the Draft Permit cannot be ascertained by the public or the department;

That therefore the "General Pre-construction Review Requirements" mandated by 62-212.300 (3) (a) 2., F.A.C., could not have been obtained by the department to the extent necessary to determine whether construction at this location will result in violations of any applicable provisions of Chapter 403, F.S.;

That thereby FDEP violated 62-204.220 (2), F.A.C., mandating that the department shall not issue an air permit authorizing the construction of any emissions unit or facility that would cause or contribute to an ambient NOx concentration that exceeds the applicable ambient air quality standard at any point within a baseline area, specifically Thonotosassa and the Petitioners' property;

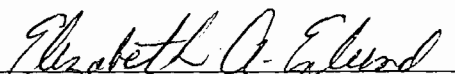
That thereby FDEP fails to show that the Florida State Implementation Plan has actual legal authority to obtain the information necessary to enforce 40 CFR 51.230 (d), (e) and (f), thereby abrogating the federal rights of United States Citizens;

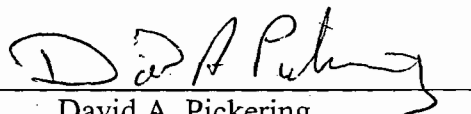
That thereby FDEP failed to implement legally enforceable procedures pursuant to 40 CFR 51.160 (f);

That thereby FDEP violated 403.0623, F.S., "Environmental data; quality assurance";

Therefore the Petitioners respectfully request that the Honorable Judge J. Lawrence Johnston remedy the Petitioners' complaint by such means as the situation demands.

Respectfully submitted this 44 day of June, 2002.

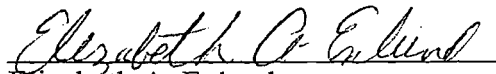

Elizabeth A. Enlund
Post Office Box 778
Thonotosassa, FL 33592-0778

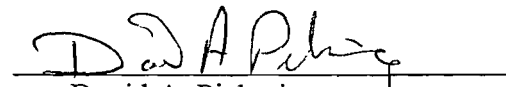

David A. Pickering
Post Office Box 778
Thonotosassa, FL 33592-0778

That an original and a true copy of this Proposed Finding of Fact 4 by the Petitioners has been sent by certified United States Mail to Anne Longman, Edwin A. Steinmeyer, John W. Forehand, counsel for Respondent FGT, at LEWIS, LONGMAN & WALKER, P.A., Post Office Box 10788 (32302), 125 South Gadsden Street, Suite 300, Tallahassee, Florida, 32301;

That an original and a true copy of this Proposed Finding of Fact 4 by the Petitioners has been sent by certified United States Mail to W. Douglas Beason, Assistant General Counsel, FDEP, 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida, 32399-3000;


That NOTICE of the Proposed Finding of Fact 4 is hereby given to the Respondents FGT and FDEP, this ~~4th~~ day of June 2002;


Elizabeth A. Enlund
Post Office Box 778
Thonotosassa, FL 33592-0778


David A. Pickering
Post Office Box 778
Thonotosassa, FL 33592-0778

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of the foregoing was served by U.S. Mail on Anne Longman, Edwin Steinmeyer, John Forehand, counsel for FGTC at LEWIS, LONGMAN & WALKER, P.A., 125 South Gadsden Street, Suite 300, Post Office Box 10788 (32302), Tallahassee, FL, 32301 and W. Douglas Beason, Assistant General Counsel, Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, FL, 32399-3000 this ~~4th~~ day of June 2002.


Petitioner

AQMcs

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Attachment A FDEP Forms

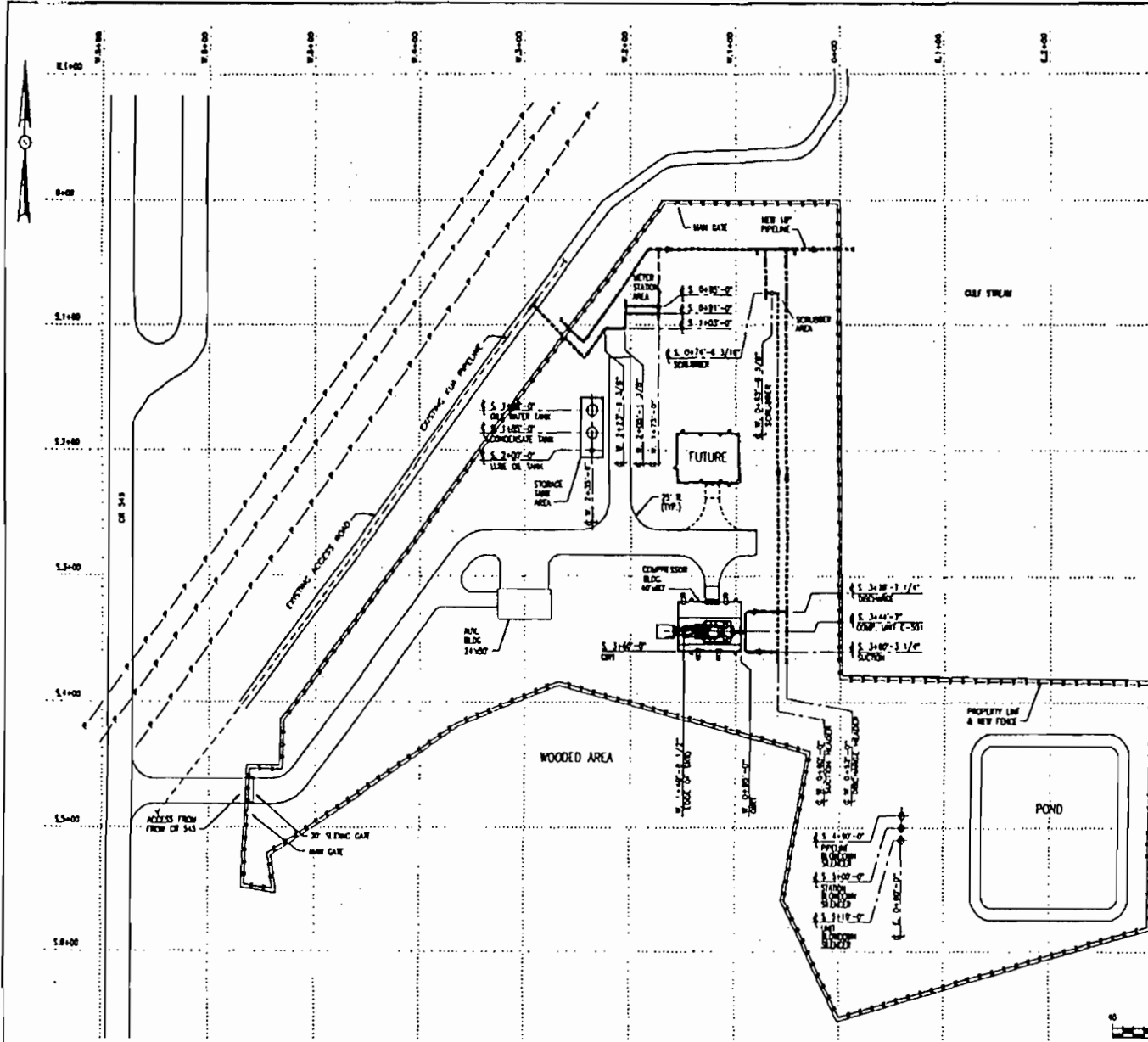
Attachment B Plot Plan

Attachment C Vendor Information

Attachment D Calculations

Attachment B

Plot Plan



HOLD LOG

1. END NEW PIPELINE LOCATIONS
2. NEW PIPELINE LOCATIONS AND TIE-INS

- NOTES:**
1. FOR MECH/Piping GENERAL NOTES SEE Dwg. 10-08
 2. CONTRACTOR TO FIELD VERIFY ALL DIMENSIONS PRIOR TO FABRICATION AND INSTALLATION
 3. STATION CONTRACTOR TO FIELD VERIFY ALL TIE-IN LOCATIONS AND ELEVATIONS
 4. STATION CONTRACTOR TO FIELD VERIFY ALL (S1) DIMENSIONS, COORDINATES & ELEVATIONS



NO.	DATE	BY	CHECKED	APPROVED	SCALE	
					HORIZ.	VERT.

100
SCALE
 Enron Engineering & Construction Co.
 Florida Gas Interposition Co.
 Houston, Texas

COMPRESSOR STATION NO. 31
 FGT PHASE V EXPANSION
 GENERAL STATION LAYOUT
 OSCEOLA COUNTY, FLORIDA

FLORIDA STATE ENGINEERING BOARD

REGISTERED PROFESSIONAL ENGINEER

NO. 12
 C 005063.41
 EXPIRES 06-30-04

DATE: 11-11-03
 SHEET NO. 13-14
 TOTAL SHEETS 17

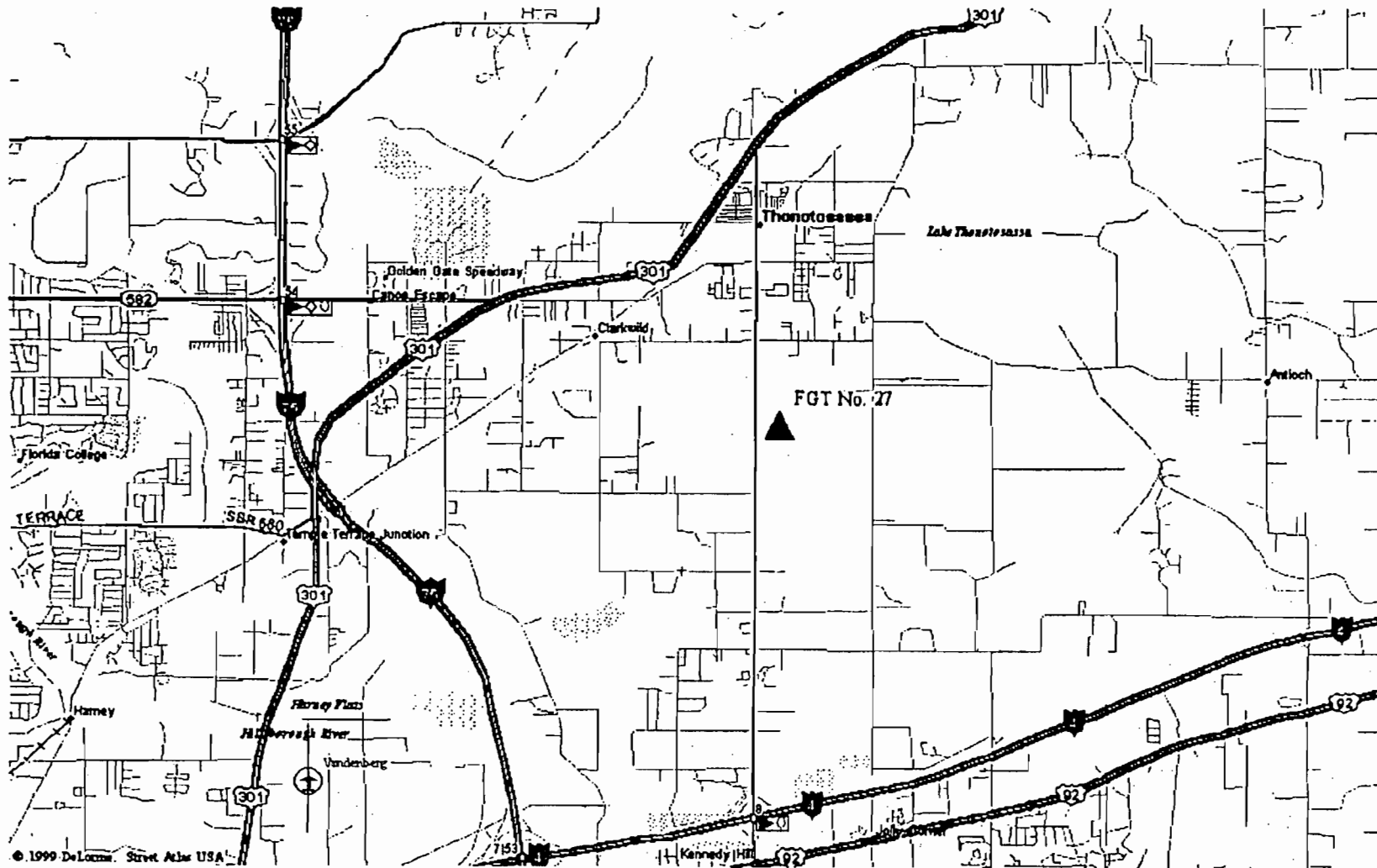
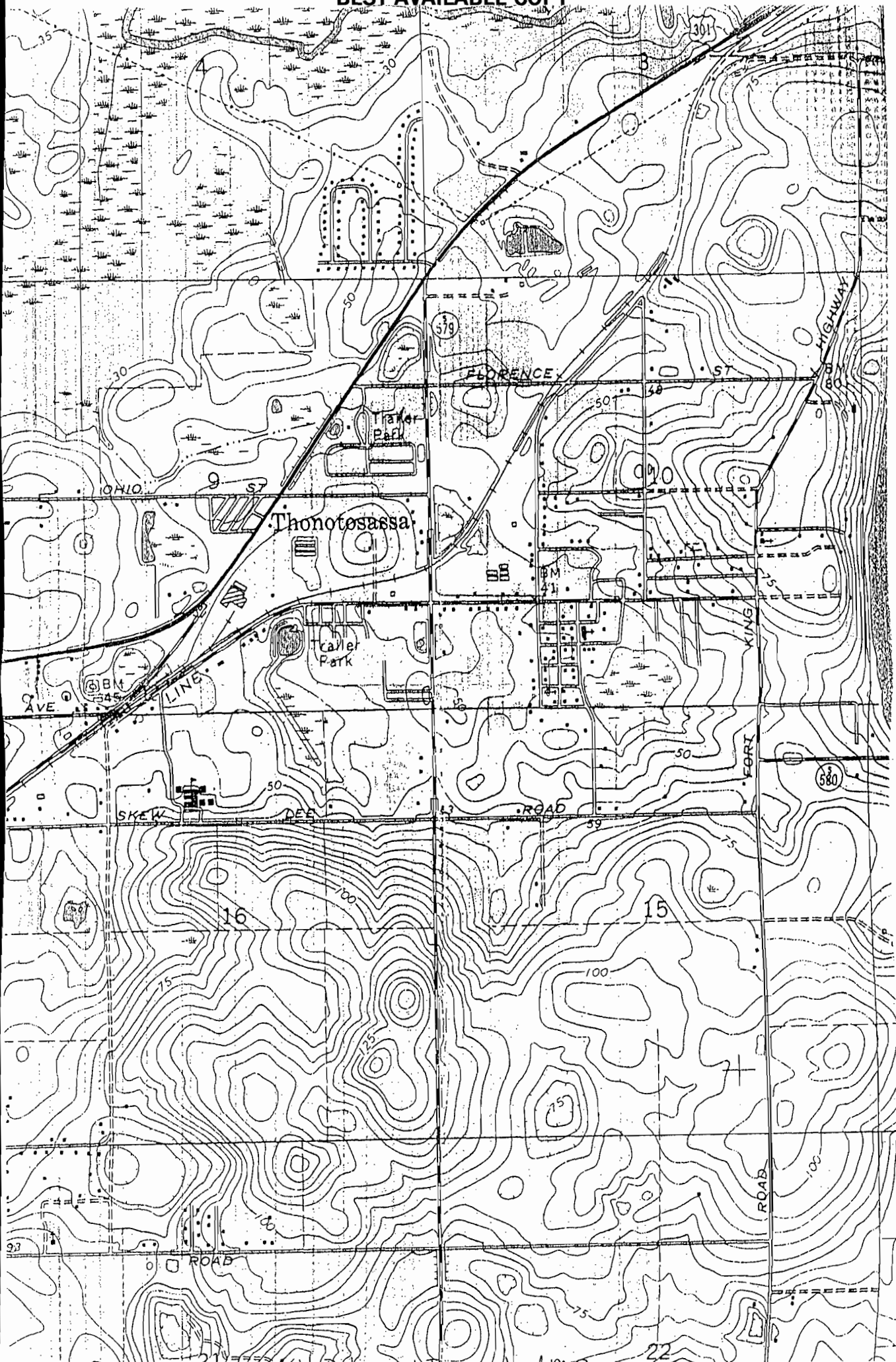


Figure 1.1 Location Map



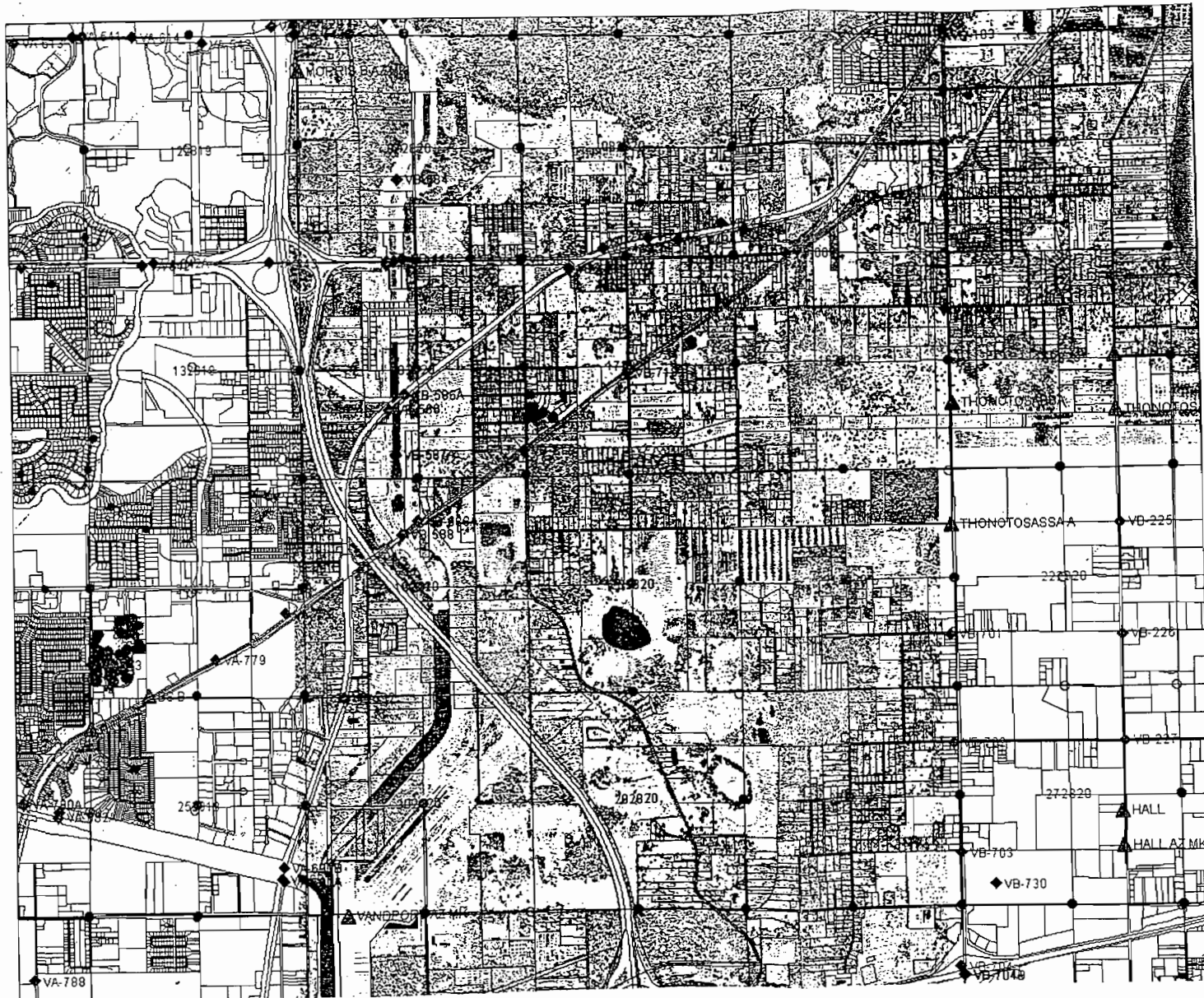
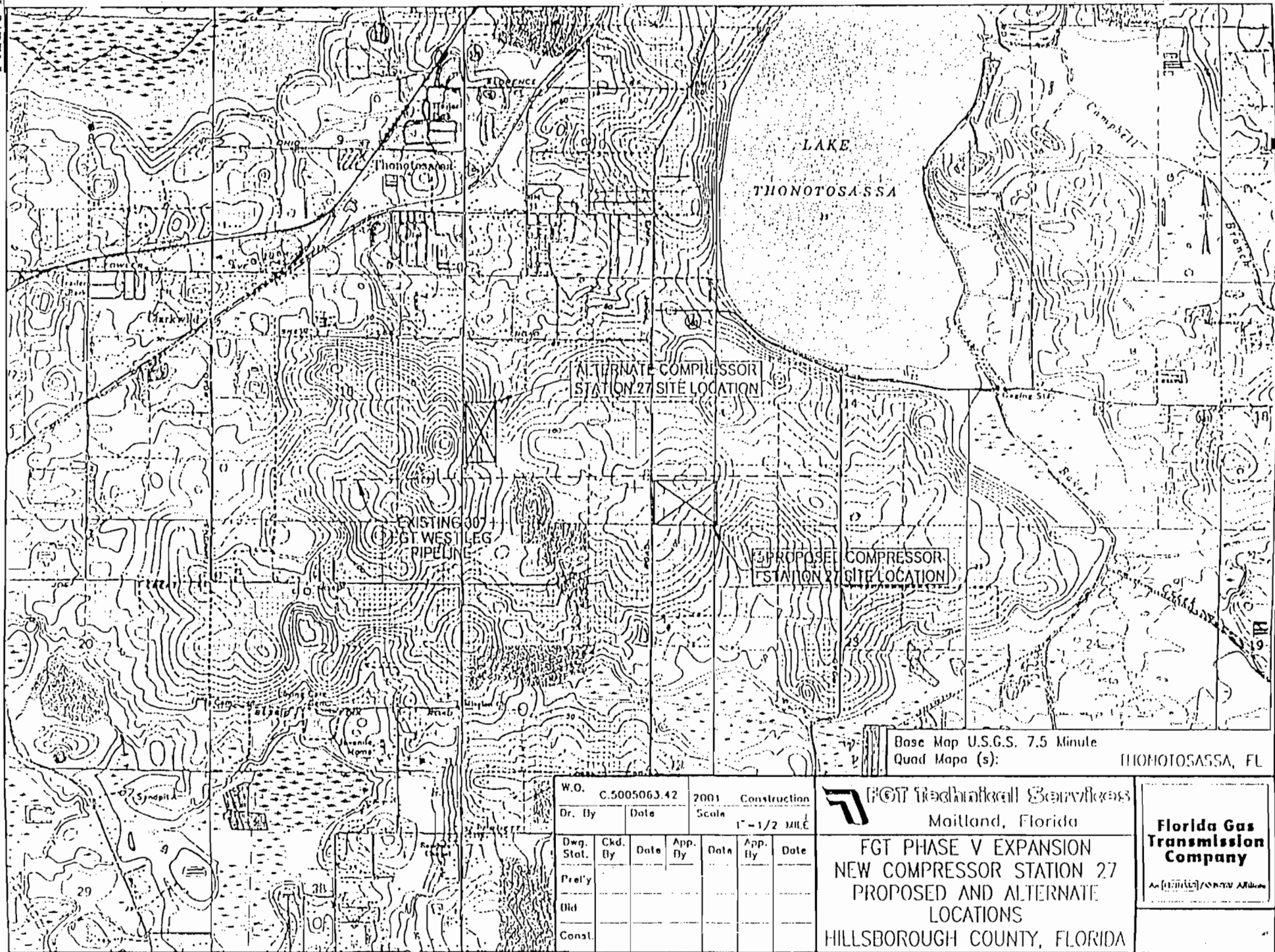


Figure 1



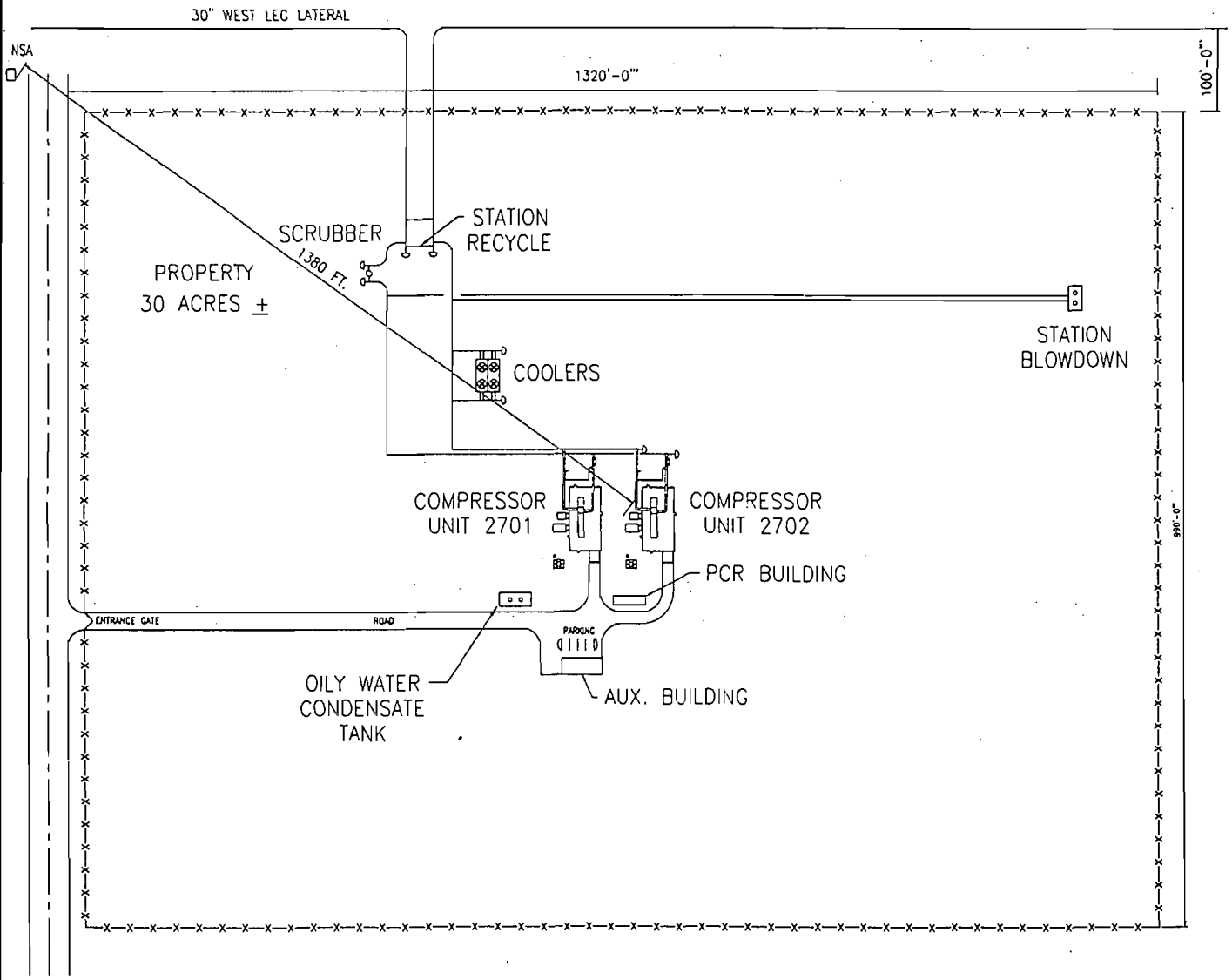
Base Map U.S.G.S. 7.5 Minute Quad Map(s): THONOTOSASSA, FL

W.O. C.5005063.42		2001 Construction	
Dr. By	Date	Scale	1" = 1/2 MILE
Dwg. Stat.	Ckd. By	Date	App. By
Prel'y			
Old			
Conal.			

FGT Technical Services
Maitland, Florida

**FGT PHASE V EXPANSION
NEW COMPRESSOR STATION 27
PROPOSED AND ALTERNATE
LOCATIONS
HILLSBOROUGH COUNTY, FLORIDA**

**Florida Gas
Transmission
Company**
An [unintelligible] COMPANY



NOISE DATA:
New Station Under Phase IV
No Readings Available

FLORIDA GAS
TRANSMISSION COMPANY

PROPOSED FGT PHASE V
COMPRESSOR STATION NO. 27
PLOT PLAN

DWG. NO. 471-V-12



"KEMP.PATRICIA"
<KEMP.PATRICIA@leg
.state.fl.us>

03/22/02 04:40 PM

To: Mike D. Lamphier/EMPL/FL/Verizon@VZNotes
cc:
Subject: FW: Florida Gas Transmission Station No. 27 - Facility Plot Plan

Michael:

I have tried to call Lynnett at both her cell phone and home. Also, the County Zoning office tried to call her with the same result. I'll be trying again.

Pat Kemp

Office of Rep. Romeo

-----Original Message-----

From: Koerner, Jeff [<mailto:Jeff.Koerner@dep.state.fl.us>]

Sent: Thursday, March 21, 2002 10:56 AM

To: KEMP.PATRICIA

Cc: Ajhar, Rebecca; Fillingim, Mary; Halpin, Mike

Subject: Florida Gas Transmission Station No. 27 - Facility Plot Plan

Ms. Kemp:

Attached is a 2-page PDF file of the facility plot plan that was faxed last night and a topographical map showing more details of the proposed location. The topographical map came with an interesting twist in that it shows 2 sites proposed about a year ago: the originally proposed location and the final site that was selected. According to Jim Thompson at FGTC, here's the story:

- * FGTC originally proposed the site east and slightly south of the site that was ultimately selected. The first site was much flatter and preferred by FGTC. An alternate site was also identified, which is the site identified consistently throughout the air permit application.
- * The land owner of the original proposed site did not want to sell the property to FGTC. Although FGTC can exercise "eminent domain" and acquire the property through "condemnation" process, they typically use this authority sparingly.
- * So, they approached the land owner for the alternate site, who was willing to sell.
- * During a title search on the property, the history of ownership was unclear due to some minor claims to the property.

- * FGTC did use the "condemnation" process to ensure that the title was free and clear from all claims and purchased the property.
- * During this process, FGTC is subject to federal review by the Federal Energy Regulatory Commission (FERC). The FERC review does require noticing of landowners within a half mile radius of the proposed facility. It is my understanding that FGTC provided FERC with the list of names and FERC mailed notices last spring.

Jim Thompson is the environmental project manager for Florida Gas Transmission. He can be reached at 800-381-1477. Jim can fill in any details regarding the project and the federal review process used to acquire sites for gas pipelines and compressor stations, which is overseen by the Federal Energy Regulatory Commission (FERC).

Again, the site is properly identified in the air permit application. I just thought the map needed some explanation. Please call me if you have any questions.

Sincerely,

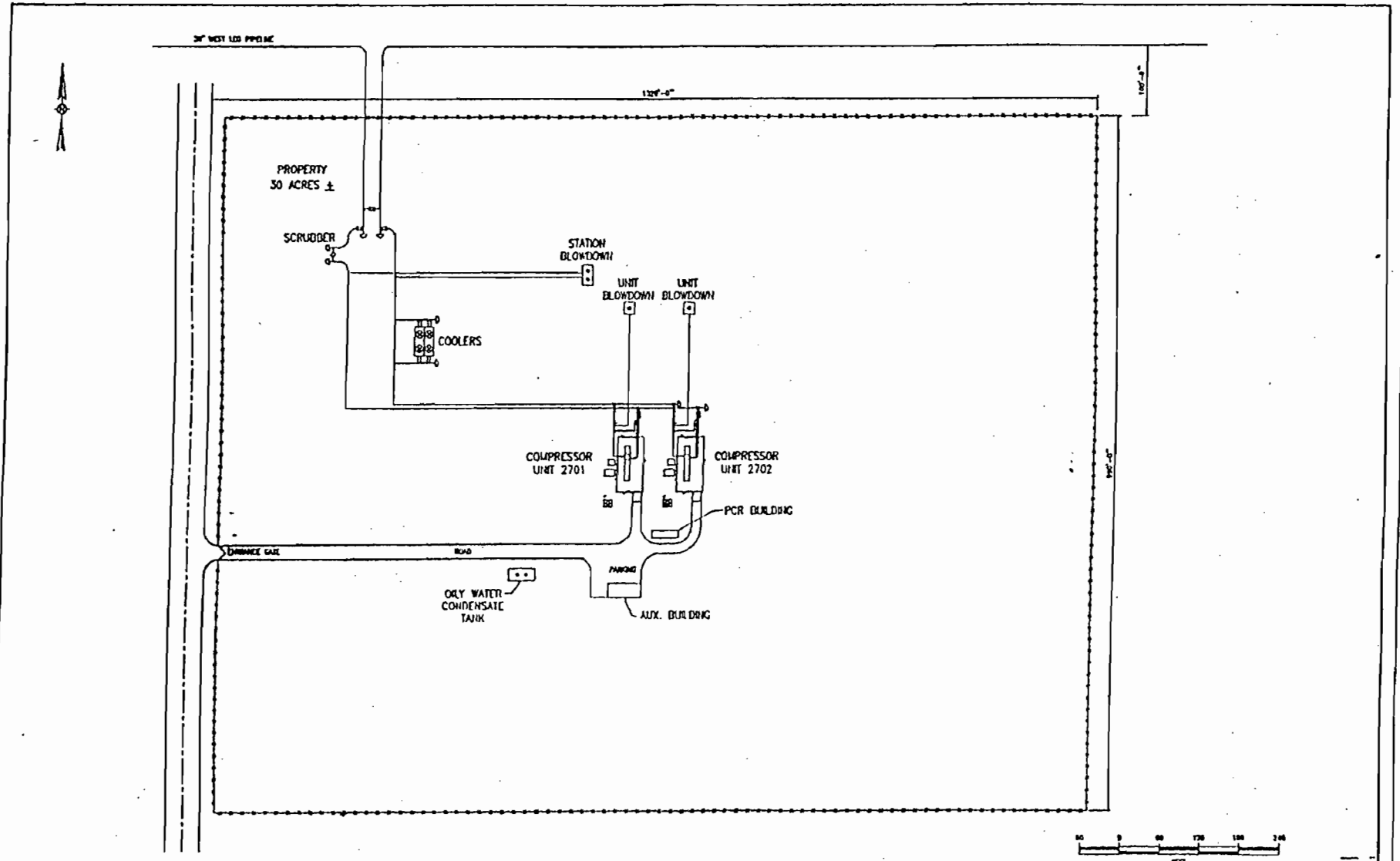
Jeff Koerner
New Source Review Section
850/921-9536

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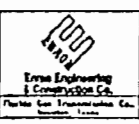


mapspdf.pdf

BEST AVAILABLE COPY



<p>DATE: 11/21/2008</p> <p>PROJECT: COMPRESSOR STATION NO. 27 PHASE V EXPANSION</p> <p>CLIENT: HILLBROUCH COUNTY, FLORIDA</p>		<p>SCALE: 1" = 100'</p> <p>DATE: 11/21/2008</p>		<p>PROJECT NO: C_005083.02</p> <p>SHEET NO: 53-1A</p> <p>TOTAL SHEETS: 1</p>	
<p>DESIGNED BY: [Name]</p> <p>CHECKED BY: [Name]</p> <p>DATE: 11/21/2008</p>		<p>APPROVED BY: [Name]</p> <p>DATE: 11/21/2008</p>		<p>ENGINEER: [Name]</p> <p>DATE: 11/21/2008</p>	
<p>PROJECT LOCATION: HILLBROUCH COUNTY, FLORIDA</p>		<p>PROJECT NO: C_005083.02</p>		<p>SHEET NO: 53-1A</p>	



COMPRESSOR STATION NO. 27
 PHASE V EXPANSION
 SITE PLAN
 HILLSBROUCH COUNTY, FLORIDA



Base Map U.S.G.S. 7.5 Minute
 Quad Map(s): THONOTOSASSA, FL

W.O. C.5005063.42		2001 Construction	
Dr. By	Date	Scale	1" = 1/2 MILE
Dwg. Stal.	Ckd. By	Date	App. By
Prel'y			
Bid			
Const.			

FGT Technical Services
 Maitland, Florida

FGT PHASE V EXPANSION
 NEW COMPRESSOR STATION 27
 PROPOSED AND ALTERNATE
 LOCATIONS
 HILLSBOROUGH COUNTY, FLORIDA

**Florida Gas
 Transmission
 Company**

As (LTD) / O.R. 27 AR 100

STATE OF FLORIDA
DIVISION OF ADMINISTRATIVE HEARINGS

ELIZABETH A. ENLUND and
DAVID A. PICKERING,

Petitioners,

Vs.

DOAH Case No.: 02-1678

COPY

FLORIDA GAS TRANSMISSION
COMPANY and DEPARTMENT OF
ENVIRONMENTAL PROTECTION,

Respondents.

PETITIONERS' PROPOSED FINDING OF FACT 5

Here comes the Petitioners, Elizabeth A. Enlund and David A. Pickering, to make the following proposed Finding of Fact 5:

That an increase in heat input or fuel consumption necessarily increases NOx emissions, all other factors remaining the same;

That an increase in NOx emissions cannot be nullified by a change in stack parameters without obtaining an Air Construction Permit pursuant to 62-210.300 (1) b. and c., F.A.C.;

That pursuant to 403.0623 F.S., "Environmental data; quality assurance," the department "must establish, *by rule*, appropriate quality assurance requirements for environmental data submitted to the department and the criteria by which environmental data may be rejected by the department.";

That Respondent FGT has increased the heat input and/or fuel consumption by 20 % for multiple facilities (see attached letter to Clancy dated August 11, 1993);

That such change necessarily represents a net increase in thermal NOx emissions (in tons per year);

That such change is not therefore subject to an "Administrative Correction" under 62-210.360, F.A.C.;

That the procedure used to approve such change circumvents the rules designed to provide data quality assurance pertaining to NOx emissions pursuant to 403.0623, F.S.;

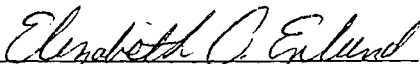
That such change without a properly obtained Air Construction Permit violates Chapter 62, F.A.C. and the rights of residents to notice and the public availability of true emission data pursuant to 40 CFR 51.116 and 40 CFR 52.05 and 40 CFR 51.161;

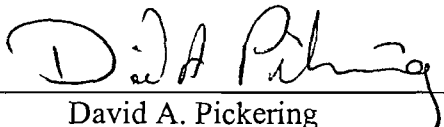
That FDEP has the duty to control emissions through a legally enforceable permitting process pursuant to 40 CFR 51.160;

That Respondent FGT has circumvented the permitting process by manipulating the definitions of "modification," "synthetic minor [sic] source," and "administrative correction";

Therefore the Petitioners respectfully request that the Honorable J. Lawrence Johnston find that the Respondent FGT has increased NOx emissions at Phase III facilities in violation of the legally enforceable procedures mandated by the Florida State Implementation Plan and Chapter 62, F.A.C.

Dated this 4th day of June, 2002.


Elizabeth A. Enlund
Post Office Box 778
Thonotosassa, FL 33592-0778


David A. Pickering
Post Office Box 778
Thonotosassa, FL 33592-0778

Mr. Clair Fancy
FGT Phase III Permits
August 11, 1993
Page 2

on our Phase II engines which indicate higher values than those provided by the engine manufacturers and used in the permits for Phase II engines. The values proposed in our applications for our Phase III engines are also based on values provided by the manufacturers. We believe it is necessary to increase these values for our Phase III engines, in order to prevent potential future compliance problems. We propose to increase these values by 20 %. We believe the new values will be more correct. Since the SO₂ and PM emission rates are based on fuel consumption, we are proposing to increase these also. These changes are provided in the attached table.

Item B

The emission limits in the permits (Specific Condition #1) represent the emission rates at 100% load conditions. We propose adding a statement or footnote to this emission limit table that indicates this.

Item C

On the same emission limit table the Emission Factor for SO₂ is given as "10 gr/100scf." This suggests that the factor is based upon 10 gr of SO₂ when it is actually sulfur. We suggest the following wording be used: "100 gr S/100/scf" to avoid confusion.

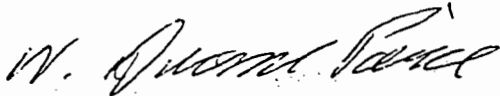
Item D

Specific Condition #12 (#11 for AC 56-230129 / PSD-FL-203 Compressor Station No. 20 and Ac 05-229322 Compressor Station No. 19) requires the source to be tested while operating "between 95% and 100% of maximum capacity." The permits for our Phase II engines require testing between 90% and 100% of maximum capacity. Due to the nature of our operations, it is sometimes difficult to reach even the 90% load on our engines when a test is scheduled. Raising this minimum level to 95% will make this a greater problem. We therefore request that this condition be changed to require testing "between 90% and 100% of maximum capacity" as required by our other permits.

Mr. Clair Fancy
FGT Phase III Permits
August 11, 1993
Page 3

Again FGT appreciates this opportunity to comment on these permit conditions and your consideration of our proposed changes. If you have any questions 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

cc: Carlon Nelson
William Osborne
Allan Weatherford
Barry Andrews - ENSR
Files

FILE: 00FDER01.LTR

J. Taylor
R. Zhang
J. Cole, NE Dist.
A. Zahm, E Dist.
B. Thomas, SW Dist.
J. Goldman, SE Dist.



Florida Gas Transmission Company

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

August 11, 1993

RECEIVED
AUG 13 1993
Division of Air
Resources Management

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

RE: Changes to FGT Phase III Expansion Project Air Permits

Draft Air Permit AC 62-229319 / PSD-FL-202
Natural Gas Compressor Station No. 15, Taylor County

Draft Air Permit AC 05-229322
Natural Gas Compressor Station No. 19, Brevard County

Draft Air Permit AC 56-230129 / PSD-FL-203
Natural Gas Compressor Station No. 20, St. Lucie County

Draft Air Permit AC 50-229440
Natural Gas Compressor Station No. 21, Palm Beach County

Draft Air Permit AC 09-229441
Natural Gas Compressor Station No. 26, Citrus County

Draft Air Permit AC 29-228821
Natural Gas Compressor Station No. 30, Hillsborough County

Dear Mr. Fancy:

We respectfully propose the following changes to each of the above referenced draft permits.

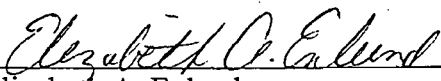
Item A

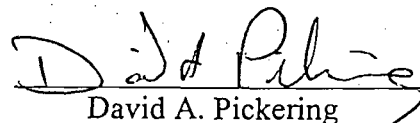
We propose increasing the maximum heat inputs and maximum natural gas consumption rates for each engine (Specific condition #5). We are proposing this change as a result of test results

That an original and a true copy of this Proposed Finding of Fact 5 by the Petitioners has been sent by certified United States Mail to Anne Longman, Edwin A. Steinmeyer, John W. Forehand, counsel for Respondent FGT, at LEWIS, LONGMAN & WALKER, P.A., Post Office Box 10788 (32302), 125 South Gadsden Street, Suite 300, Tallahassee, Florida, 32301;

That an original and a true copy of this Proposed Finding of Fact 5 by the Petitioners has been sent by certified United States Mail to W. Douglas Beason, Assistant General Counsel, FDEP, 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida, 32399-3000;

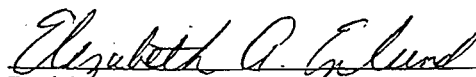
That NOTICE of the Proposed Finding of Fact 5 is hereby given to the Respondents FGT and FDEP, this 14 day of June 2002;


Elizabeth A. Enlund
Post Office Box 778
Thonotosassa, FL 33592-0778


David A. Pickering
Post Office Box 778
Thonotosassa, FL 33592-0778

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of the foregoing was served by U.S. Mail on Anne Longman, Ed Steinmeyer, John Forehand, counsel for FGTC at LEWIS, LONGMAN & WALKER, P.A., 125 South Gadsden Street, Suite 300, Post Office Box 10788 (32302), Tallahassee, FL, 32301 and W. Douglas Beason, Assistant General Counsel, Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, FL, 32399-3000 this 14 day of June 2002.


Petitioner

ORIGINALLY PROPOSED VALUES

STATION	MAXIMUM HEAT INPUT (MMBtu/hr)	MAXIMUM GAS CONSUMPTION (MMscf/hr)	SO ₂ EMISSIONS		PM/PM ₁₀ EMISSIONS	
			lb/hr	T/yr	lb/hr	T/yr
15	109.66	0.1054	3.01	13.19	0.53	2.31
19	38.3	0.0368	0.94	4.12	0.17	0.74
20	27.8	0.0267	0.70	3.33	0.13	0.57
21	59.60	0.057	1.64	7.18	0.29	1.26
26	59.60	0.057	1.64	7.18	0.29	1.26
30	13.13	0.013	0.37	1.62	0.064	0.28

NEW VALUES

STATION	MAXIMUM HEAT INPUT (MMBtu/hr)	MAXIMUM GAS CONSUMPTION (MMscf/hr)	SO ₂ EMISSIONS		PM/PM ₁₀ EMISSIONS	
			lb/hr	T/yr	lb/hr	T/yr
15	131.59	0.1265	3.61	15.83	0.64	2.77
19	45.96	0.0442	1.13	4.94	0.20	0.89
20	33.36	0.0320	0.84	4.00	0.16	0.68
21	71.52	0.0684	1.97	8.62	0.35	1.51
26	71.52	0.0684	1.97	8.62	0.35	1.51
30	15.76	0.0156	0.44	1.94	0.077	0.34

STATE OF FLORIDA
DIVISION OF ADMINISTRATIVE HEARINGS

ELIZABETH A. ENLUND and
DAVID A. PICKERING,

Petitioners,

COPY

Vs.

DOAH Case No.: 02-1678

FLORIDA GAS TRANSMISSION
COMPANY and DEPARTMENT OF
ENVIRONMENTAL PROTECTION,

Respondents.

PETITIONERS' PROPOSED FINDING OF FACT 6

Here comes the Petitioners, Elizabeth A. Enlund and David A. Pickering, to make the following proposed Finding of Fact 6:

That Respondent FGT has misrepresented NO_x emissions data as demonstrated by

comparing data reported to the EPA AIRData with the data reported to FERC in the Final Environmental Impact Statement of July, 2001 for the Phase V Expansion Project;

That the EPA AIRData can be accessed using the Enviro-Warehouse search engine,

request for "Florida NET Air Pollution Point Sources—Nitrogen Oxides (1999) or @ <http://oaspub.epa.gov/pls/airdata>;

That the same FGT facilities reported NO_x emissions in Table 3.11.1-2, "Summary of

Current and Proposed Total NO_x and CO Emission Rates (tpy) for the FGT Phase V Pipeline Project," page 3-140 of the FEIS;

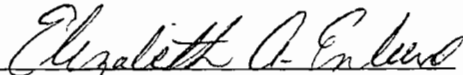
That for convenience the data is faithfully presented in the following table:

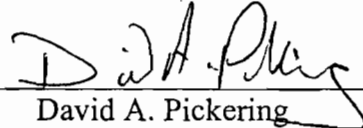
FGT Facility County	FGT Facility Location	N0x (tpy) from EPA AIRData (1999)	N0x (tpy) from FERC Final EIS (2001)
Santa Rosa	Milton, FL	612	1,159.3
Taylor	Perry, FL	496	1,210.1
Marion	Silver Springs, FL	483	859.8
Washington	Caryville, FL	462	1,154.1
Gadsden	Quincy, FL	416	1,089.5
Bradford	Brooker, FL	654	1,131.8
Citrus	Lecanto, FL	18	88

That therefore FGT is thus subject to 62-4.070(5), F.A.C., and the department shall demand strict proof, rather than reasonable assurance, that emissions will not exceed the minor source threshold;

That therefore the Petitioners respectfully request that the Honorable Judge J. Lawrence Johnston find that Respondent FGT has misrepresented emissions data in the past and therefore must provide strict proof of emissions claims in this hearing;

Respectfully submitted this 4th day of June, 2002.

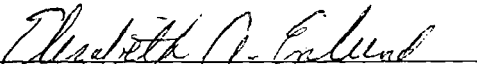

Elizabeth A. Enlund
Post Office Box 778
Thonotosassa, FL 33592-0778



David A. Pickering
Post Office Box 778
Thonotosassa, FL 33592-0778

That an original and a true copy of this Proposed Finding of Fact 6 by the Petitioners has been sent by certified United States Mail to Anne Longman, Edwin A. Steinmeyer, John W. Forehand, counsel for Respondent FGT, at LEWIS, LONGMAN & WALKER, P.A., Post Office Box 10788 (32302), 125 South Gadsden Street, Suite 300, Tallahassee, Florida, 32301;

That an original and a true copy of this Proposed Finding of Fact 6 by the Petitioners has been sent by certified United States Mail to W. Douglas Beason, Assistant General Counsel, FDEP, 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida, 32399-3000;

That NOTICE of the Proposed Finding of Fact 6 is hereby given to the Respondents FGT and FDEP, this 4th day of June 2002;


Elizabeth A. Enlund
Post Office Box 778
Thonotosassa, FL 33592-0778


David A. Pickering
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Thonotosassa, FL 33592-0778

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of the foregoing was served by U.S. Mail on Anne Longman, Edwin Steinmeyer, John Forehand, counsel for FGTC at LEWIS, LONGMAN & WALKER, P.A., 125 South Gadsden Street, Suite 300, Post Office Box 10788 (32302), Tallahassee, FL, 32301 and W. Douglas Beason, Assistant General Counsel, Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, FL, 32399-3000 this 4th day of June 2002.


Petitioner

PARCEL 2007
 2007 2008

3.0 ENVIRONMENTAL ANALYSIS

Compressor Station 17A is located in Silver Springs, Marion County, Florida. This station is located within the Jacksonville (Florida) – Brunswick (Georgia) Interstate AQCR. The compressor station currently consists of five reciprocating engine-driven compressors totaling 10,400 hp. This station is currently a major source for NO_x and minor source for CO.

Compressor Station 24 is located in Trenton, Gilchrist County, Florida. This site is located in the Jacksonville (Florida) – Brunswick (Georgia) Interstate AQCR. The compressor station currently consists of one turbine-driven compressor totaling 10,350 hp. This station is currently a minor source for both NO_x and CO.

Compressor Station 26 is located in Lecanto, Citrus County, Florida. Citrus County is located in the West Central Florida Intrastate AQCR. The compressor station currently consists of two turbine-driven compressors totaling 13,670 hp. This station is currently a minor source for both NO_x and CO. This site is about 24 km from the Chassahowitzka Wilderness Area in Citrus and Hernando Counties, Florida.

Compressor Station 27 would be a new station located in Thonotosassa, Hillsborough County, Florida. This county is located within the West Central Florida Intrastate AQCR. This new station would be about 77 km from the Chassahowitzka Wilderness Area in Citrus and Hernando Counties, Florida.

Compressor Station 31 would be a new station located in Kissimmee, Osceola County, Florida. Osceola County is located in the Central Florida Intrastate AQCR.

Table 3.11.1-2 presents the current and proposed total NO_x and CO emissions associated with the compressor stations.

TABLE 3.11.1-2
 Summary of Current and Proposed Total NO_x and CO Emission Rates (tpy)
 for the FGT Phase V Pipeline Project

Station #	Current Emissions (tpy)		Proposed Total Emissions (tpy)		Impact on Emissions (tpy)	
	NO _x	CO	NO _x	CO	NO _x	CO
44	0	0	22.5	61.2	22.5	61.2
11A	1,205.7	302.2	1,206.5	365.8	0.8	63.6
12A	1,159.3	276.3	1,131.3	352.9	-28.0	76.6
13A a/	1,154.1	228.4	0	0	0	0
14A	1,089.5	160.6	1,053.8	230.6	-35.7	70.0
15A	1,210.1	283.2	1,236.5	315.2	26.4	32.0
16	1,131.8	232.0	1,156.4	262.0	24.6	30.0
17A	859.8	172.9	881.5	245.1	21.7	72.2
24	36.4	44.5	46.5	56.7	10.1	12.2
26	88.8	58.3	74.4	60.0	-14.4	1.7
27	0	0	49.3	60.0	49.3	60.0
31	0	0	16.9	45.9	16.9	45.9

a/ The proposed equipment for Compressor Station 13A consists of electric equipment, thus there will be no additional direct emissions generated.

3.11.1.2 Environmental Consequences

During construction of the proposed pipeline sections, a temporary, short-term reduction of local ambient air quality due to fugitive dust and emissions generated by construction equipment may be realized. This short-term impact would occur only in the immediate vicinity of the pipeline rights-of-way. Once the

STATE OF FLORIDA
DIVISION OF ADMINISTRATIVE HEARINGS

ELIZABETH A. ENLUND and
DAVID A. PICKERING,

Petitioners,

COPY

Vs.

DOAH Case No.: 02-1678

FLORIDA GAS TRANSMISSION
COMPANY and DEPARTMENT OF
ENVIRONMENTAL PROTECTION,

Respondents.

PETITIONERS' PROPOSED FINDING OF FACT 7

Here comes the Petitioners, Elizabeth A. Enlund and David A. Pickering, to make the following proposed Finding of Fact 7:

That FGT does trade natural gas for electricity to run electric turbines, particularly

“volumes to be delivered in exchange for horsepower hours of electric service for compression” as stated in the FERC RIMS DOC 2106247, p.o. 18 of 36, available at <http://rimsweb1.ferc.fed.us> (attached page);

That the efficiency of electricity is as good as that for gas, and thus it can be traded one for one, as FGT states, “The quantity of gas exchanged for horsepower hours is determined by the actual usage of the electric driven compressor units and is the same quantity of gas that would be consumed by a gas turbine at the usage levels.”;

That the environmental impact of electricity is better than that of gas as Florida Gas further states that the “electric driven units offer operational and environmental

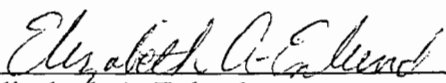
benefits, and will result in a lower annual cost of service than would result from the installation of a gas turbine unit.”;

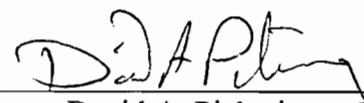
That therefore TECO’s conversion to a cleaner burning fuel does not require natural gas fuel for CS 27 nor the sacrifice of air quality in Thonotosassa;

That therefore the Petitioners respectfully request that the Honorable Judge J. Lawrence Johnston find that FGT has better options than natural gas for powering a Compressor Station and;

That therefore the Petitioners respectfully request that the Honorable Judge J. Lawrence Johnston strike from the record of this hearing any references to TECO’s conversion to cleaner fuels as immaterial to whether the Draft Air Construction Permit for CS 27 is valid;

Respectfully submitted this 4th day of June, 2002.

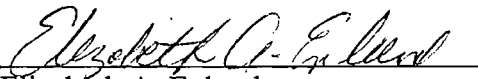

Elizabeth A. Enlund
Post Office Box 778
Thonotosassa, FL 33592-0778



David A. Pickering
Post Office Box 778
Thonotosassa, FL 33592-0778

That an original and a true copy of this Proposed Finding of Fact 7 by the Petitioners has been sent by certified United States Mail to Anne Longman, Edwin A. Steinmeyer, John W. Forehand, counsel for Respondent FGT, at LEWIS, LONGMAN & WALKER, P.A., Post Office Box 10788 (32302), 125 South Gadsden Street, Suite 300, Tallahassee, Florida, 32301;

That an original and a true copy of this Proposed Finding of Fact 7 by the Petitioners has been sent by certified United States Mail to W. Douglas Beason, Assistant General Counsel, FDEP, 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida, 32399-3000;

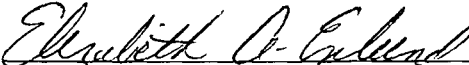
That NOTICE of the Proposed Finding of Fact 7 is hereby given to the Respondents FGT and FDEP, this 4th day of June 2002;


Elizabeth A. Enlund
Post Office Box 778
Thonotosassa, FL 33592-0778


David A. Pickering
Post Office Box 778
Thonotosassa, FL 33592-0778

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of the foregoing was served by U.S. Mail on Anne Longman, Ed Steinmeyer, John Forehand, counsel for FGTC at LEWIS, LONGMAN & WALKER, P.A., 125 South Gadsden Street, Suite 300, Post Office Box 10788 (32302), Tallahassee, FL, 32301 and W. Douglas Beason, Assistant General Counsel, Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, FL, 32399-3000 this 4th day of June 2002.


Petitioner

Docket Nos. CP00-40-000, et al. - 18 -

impose a condition in a NGA section 7 certificate proceeding which orders adjustments to rates approved in a previous NGA section 4 or 5 rate proceeding.²⁷ We agree with Florida Gas and deny FMNGA's request.

e. Fuel Reimbursement Charge Percentage

Florida Gas requests approval of its pro forma tariff Sheet Nos. 205, 206, 206B and 207 which provide for the determination of a Fuel Reimbursement Charge Percentage (FRCP), as described in Section 27 of the tariff's General Terms and Conditions (GT&C).

The tariff language states that in the calculation of the FRCP, Florida Gas will consider "actual volumes delivered to party(ies) as payment for compression services." Florida Gas is advised that when it submits its tracker filings for the FRCP, we will expect Florida Gas to provide detailed workpapers supporting the calculations.

We accept the pro forma tariff sheets, subject to Florida Gas filing actual tariff sheets which reflect that the pro forma tariff sheet filed as Sheet No. 207B should actually be Sheet No. 207. The actual tariff sheet should also ensure that Section 28, Order No. 497 Compliance, is not deleted from its tariff as indicated on the pro forma sheet.

Reedy Creek comments that fuel usage for compression could increase due to the different usage profile of new gas fired generation shippers from the usage profile of existing shippers. Reedy Creek is concerned that surcharges for fuel use and the proposed electric power tracker could be higher than current surcharges.

Florida Gas answers that it does not expect the Phase V Expansion to cause any increase in fuel usage as a percentage of throughput, including volumes to be delivered in exchange for horsepower hours of electric service for compression. The quantity of gas exchanged for horsepower hours is determined by the actual usage of the electric driven compressor units and is the same quantity of gas that would be consumed by a gas turbine at the usage levels. Florida Gas further states that the electric driven units offer operational and environmental benefits, and will result in a lower annual cost of service than would result from the installation of a gas turbine unit.

²⁷Citing *Northern Natural Gas Co. v. FERC*, 827 F.2d 779 (D.C. Cir. 1987), finding that the revenue crediting condition imposed in a NGA section 7 proceeding to adjust previously approved rates exceeded the Commission's statutory authority.

STATE OF FLORIDA
DIVISION OF ADMINISTRATIVE HEARINGS

ELIZABETH A. ENLUND and
DAVID A. PICKERING,

Petitioners,

COPY

Vs.

DOAH Case No.: 02-1678

FLORIDA GAS TRANSMISSION
COMPANY and DEPARTMENT OF
ENVIRONMENTAL PROTECTION,

Respondents.

PETITIONERS' PROPOSED FINDING OF FACT 8

Here comes the Petitioners, Elizabeth A. Enlund and David A. Pickering, to make the following proposed Finding of Fact 8:

That the Respondent FGT has continually and repeatedly conflated the locations of the alternate and original sites for CS 27;

That by creating confusion FGT has avoided public scrutiny of the Draft Permit to the detriment of the petitioners and residents of Thonotosassa who were entitled to public notice under 62-210.350, F.A.C.;

That in the civil suit FGTC v. Joan Johnston Crow, Case No. 0110002, Civil Division, Respondent FGT by eminent domain took the parcel HI-027.052-CS;

That during such proceeding the Respondent FGT used a map portraying CR 579 as "TAYLOR ROAD" (OR BK 11205 PG 0327, filed Exhibit B, November 16, 2001);

That the Stipulated Order Of Taking in such proceeding was recorded with a correct map from which the misleading label "TAYLOR ROAD" had been removed, indicating that FGT with knowledge and intent conflated the two locations to the detriment of those with substantial interests to consider, including the petitioners (OR BK 11469 PG 1285, filed Exhibit A, March 7, 2002);

That such tactics are also demonstrated in the Expansion V (including CS 27) Draft EIS placed in the Riverview Public Library for public comment;

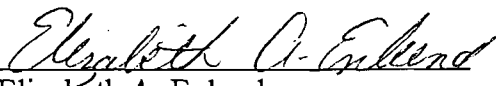
That thereby Respondent FGT violated 40 CFR 51.161 "Public availability of information" and 40 CFR 51.116 "Data availability" and 62-210.350(4)(c)(5), F.A.C.;

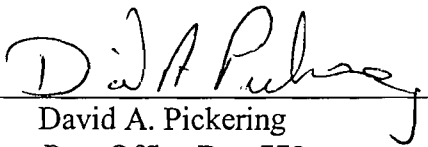
That such violation resulted in the confusion and therefore delays in this case;

That hereby the Petitioners do respectfully request that the Honorable Judge J. Lawrence Johnston find that the delays in the Permit approval process are due to Respondent FGT's repeated misrepresentation of location and;

That hereby the Petitioners do respectfully request that the Honorable Judge J. Lawrence Johnston find that the Petitioners are entitled to a full discovery period permitted by 120.569 and 120.57 (1), F.S., to ascertain what other facts in this case have been misrepresented by Respondent FGT.

Respectfully submitted this 4~~th~~ day of June, 2002.



Elizabeth A. Enlund
Post Office Box 778
Thonotosassa, FL 33592-0778



David A. Pickering
Post Office Box 778
Thonotosassa, FL 33592-0778

That an original and a true copy of this Proposed Finding of Fact 8 by the Petitioners has been sent by certified United States Mail to Anne Longman, Edwin A. Steinmeyer, John W. Forehand, counsel for Respondent FGT, at LEWIS, LONGMAN & WALKER, P.A., Post Office Box 10788 (32302), 125 South Gadsden Street, Suite 300, Tallahassee, Florida, 32301;

That an original and a true copy of this Proposed Finding of Fact 8 by the Petitioners has been sent by certified United States Mail to W. Douglas Beason, Assistant General Counsel, FDEP, 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida, 32399-3000;

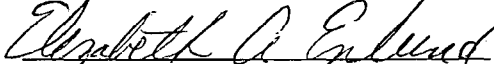
That NOTICE of the Proposed Finding of Fact 8 is hereby given to the Respondents FGT and FDEP, this 4th day of June 2002;


Elizabeth A. Enlund
Post Office Box 778
Thonotosassa, FL 33592-0778


David A. Pickering
Post Office Box 778
Thonotosassa, FL 33592-0778

CERTIFICATE OF SERVICE

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Petitioner

A BOUNDARY SURVEY
for
FLORIDA GAS TRANSMISSION COMPANY
of

The West 1/2 of the Northwest 1/4 of the Southwest 1/4 of Section 15, Township 28 South, Range 20 East, Hillsborough County, Florida;

SUBJECT TO the West 30 feet thereof for Road Right-of-Way.

NOTES:

- The bearings as shown hereon are based on an assumed bearing of N. 00° 05' 00" E. on the Easterly Right-of-Way Line of Taylor Road in Section 15, Township 28 South, Range 20 East, Hillsborough County, Florida.
- According to the Flood Insurance Rate Map (FIRM); dated August 3, 1992, the property shown hereon appears to lie in Flood Zone "X" located on Panel No. 120112-0245-D.
- This survey is of visible features only. Underground encroachments, septic tanks, sprinkler systems or utilities, if any, were not located. Improvements &/or fences on or near boundary property lines may be exaggerated to clarify location.
- There may be additional restrictions found in the Public Records of Hillsborough County, Florida.
- This survey has been prepared without the benefit of a current title report or abstract and therefore does not necessarily indicate all encumbrances on the property.
- Additions or deletions to survey maps or reports by other than the signing party or parties is prohibited without written consent of the signing party or parties.
- Legal description furnished by client.
- Coordinate System based on US State Plane 1983; Zone: Florida West 0902 (WGS 84).

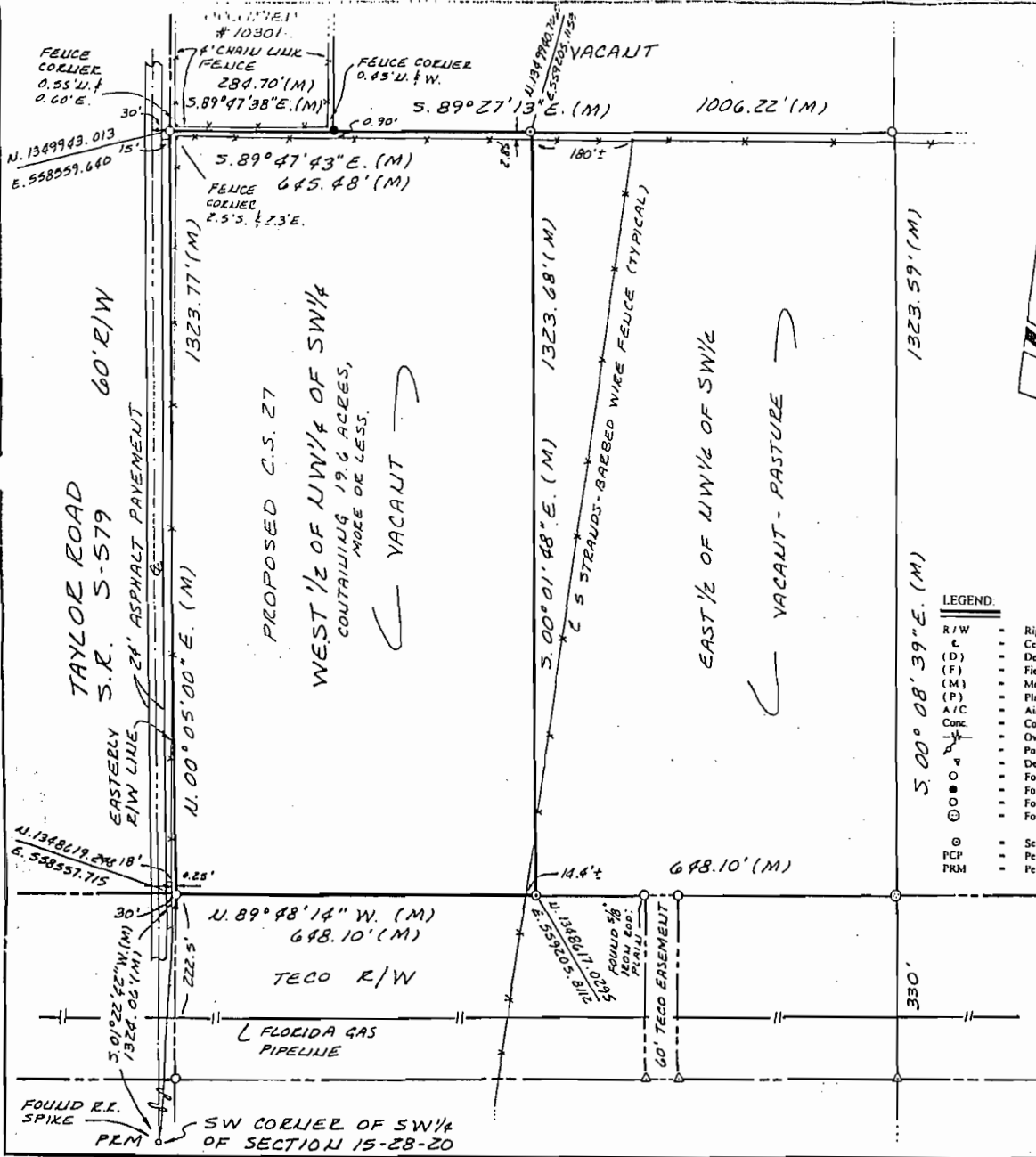
I hereby certify that the survey represented hereon meets the minimum technical requirements of Chapter 61G17-6, Florida Administrative Code. Not valid unless signed and embossed with seal.

Willis R. Howell, Inc.

DATE: July 9 2001
Signed and Sealed

Willis R. Howell
Willis R. Howell
Professional Land Surveyor No. 5448

WILLIS R. HOWELL, INC. 4752 West Abeline Drive Dunnellon, Florida 34433 (352) 746-2511		
SCALE: 1" = 200'	APPROVED BY: WILLIS R. HOWELL	DRAWN BY: BJH
DATE: 07/29/01		REVISED
A BOUNDARY SURVEY		
H-041, 06		DRAWING NUMBER 0701-424

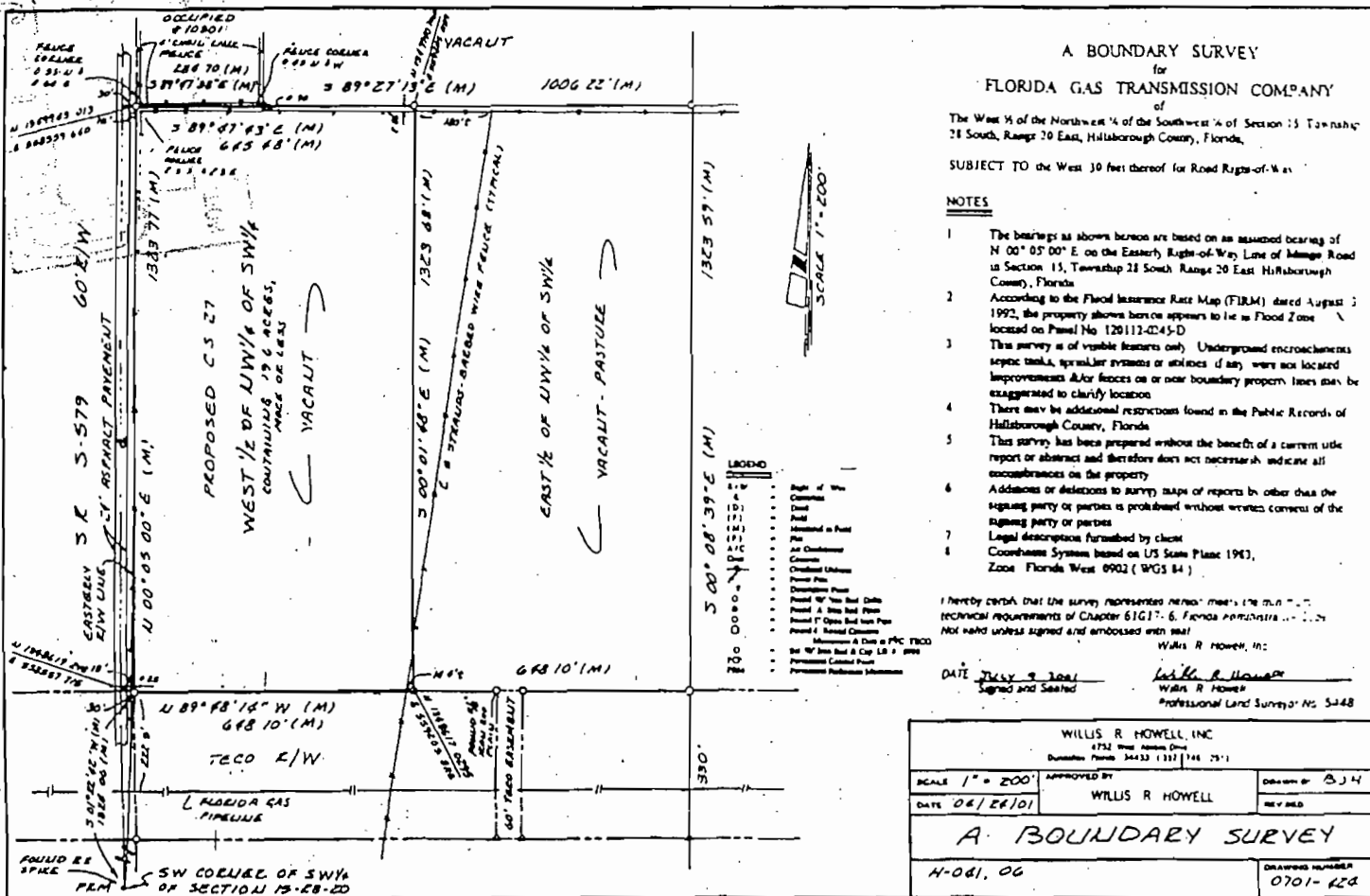


LEGEND:

R/W	Right - of - Way
c	Centerline
(D)	Deed
(F)	Field
(M)	Measured in Field
(P)	Plat
A/C	Air Conditioner
Conc	Concrete
Overhead	Overhead Utilities
Power Pole	Power Pole
•	Descriptive Point
•	Found 1/2" Iron Rod: Delta
•	Found 1/2" Iron Rod: Plain
•	Found 1" Open End Iron Pipe
•	Found 4" Round Concrete Monument & Disc in PVC: TECO
•	Set 1/2" Iron Rod & Cap: LI # 6990
•	Permanent Control Point
•	Permanent Reference Monument



BEST IMAGE AVAILABLE





Department of Environmental Protection

Job Bush
Governor

Marjory Stoneman Douglas Building
3900 Commonwealth Boulevard
Tallahassee, Florida 32399-3000

David B. Struhs
Secretary

FAX COVER SHEET

TO:

Jeff Keener

TELEPHONE NUMBER:

FAX NUMBER:

922-6979

FROM:

Linda Mason

FAX NUMBER:

DATE OF TRANSMISSION:

NUMBER OF PAGES INCLUDING COVER:

4 ~~7~~

If there are problems with this transmission, please contact

Linda at 921-9672.

5-2-02

COMMENTS:



LEWIS, LONGMAN & WALKER, PA.
ATTORNEYS AT LAW

ERIC B. ASH
WILLIAM B. CAPKO
BETH ANN CARLSON
AMY M. DUKES
MICHELLE DIFFENDERFER
ROBERT P. DIFFENDERFER
KENNETH W. DODGE
BRENNAN MALCUP DURDEN
WAYNE G. FLOWERS
MELISSA GROSS-ARNOLD
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25 South Garden Street • Suite 300
Tallahassee, Florida 32301
850) 222-5702 • Fax (850) 224-9242

WEST PALM BEACH OFFICE
1710 Palm Beach Lakes Blvd. • Suite 1000
West Palm Beach, Florida 33401
561) 640-0820 • Fax (561) 640-8202

DEBORAH D. HOLTON
R. STEVEN LEWIS
TERRY E. LEWIS
JAMES W. LINN
ANNE LONGMAN
G. STEPHEN MANNING
DAVID E. RAMBA
KENNETH G. SPILLIAS
EDWIN A. STEINMEYER
STEPHEN A. WALKER

Reply to: Tallahassee

TELECOPY COVER SHEET

Date: May 2, 2002

Client/Matter No. 000751-003

Pages: 6 (No. of pages including cover sheet)

To: Doug Beason

Teletype Number: 921-3000

Teletype Number: _____

Teletype Number: _____

Teletype Number: _____

From: Ed Steinmeyer

Contact Person: Cathy

Subject: Please call me after your review.

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STATE OF FLORIDA
DIVISION OF ADMINISTRATIVE HEARINGS

ELIZABETH A. ENLUND and
DAVID A. PICKERING,

DRAFT

Petitioners,

vs.

DOAH Case No. 02-1678
Air Permit No. 0571279-001-AC

FLORIDA GAS TRANSMISSION
COMPANY and DEPARTMENT OF
ENVIRONMENTAL PROTECTION,

Respondents.

RESPONDENT FLORIDA GAS TRANSMISSION COMPANY'S
MOTION TO EXPEDITE ADMINISTRATIVE PROCEEDING

Respondent, Florida Gas Transmission Company ("FGT"), by and through its undersigned attorneys and pursuant to Florida Administrative Code Rules 28-106.204 and 28-106.211, moves to expedite discovery and the hearing; date in this Administrative Proceeding and states:

Background

1. On March 4, 2002, the Department of Environmental Protection ("Department") gave notice of its intent to issue Air Construction Permit No. 0571279-001-AC to FGT for the construction of Compressor Station 27 ("CS 27") in Hillsborough County, Florida. Notice of the Department's intent to issue this permit was published in the Tampa Tribune on March 12, 2002.

2. On March 26, 2002, Petitioners Elizabeth A. Enlund and David A. Pickering ("Petitioners") filed a petition for administrative proceeding alleging various concerns with the construction of CS 27 at its present location.

3. CS 27 is considered a minor source of air pollution and will consist of two 7222 bhp gas turbine compressor engines, fired with natural gas, and miscellaneous support

DRAFT

equipment. CS 27 is being constructed on approximately 6 acres of a 20-acre site owned by FGT. The site is approximately two miles south of U.S. Highway 301 on County Road 579 near the town of Thonotosassa, Florida. CS 27 is being constructed to maintain natural gas transportation commitments to downstream customers after FGT's Bayside lateral pipeline is completed. The Bayside Lateral pipeline is being constructed to provide natural gas for the conversion of Tampa Electric Company's (TECO) Gannon facility from coal/oil fired electrical generating units to natural gas fired units.

4. The Gannon facility conversion is part of an agreement between TECO and the Department to reduce pollution in the Tampa Bay area. The efforts under this agreement are expected to bring the entire Tampa Bay area back into compliance with the Environmental Protection Agency's federal air quality standards. The agreement is a court-enforceable order requiring TECO to reduce its air pollution by 85%. One of three main components of this agreement is the conversion of the Gannon facility from coal to natural gas. The repowering of the coal-fired units at the Gannon facility will result in an estimated reduction in nitrogen oxide (NOx) emissions by 33,000 tons per year and an estimated reduction in sulfur dioxide emissions by 60,000 tons per year by 2010. Mercury emissions should also be reduced by approximately 68%.

5. FGT is contractually obligated to provide natural gas for the TECO Gannon (Bayside) facility conversion commencing on January 1, 2003. This requires that construction of CS 27 be completed in time to provide test gas to TECO, and meet FGT's existing customer demands, by January 1, 2003. Currently, construction of CS 27 is scheduled to begin September 4, 2002, in order to meet these demands.

Argument

DRAFT

6. The applicant for a minor source air construction permit is required to provide reasonable assurances that it will comply with applicable Department rules and standards. Florida Department of Transportation v. J.W.C. Company, Inc., 396 So.2d 778 (Fla. 1st DCA 1981). A minor source air construction permitting proceeding contemplates a narrow, limited scope proceeding based solely on compliance with applicable pollution control standards and rules. See Council of the Lower Keys v. Charley Toppino & Sons, Inc., 429 So.2d 67 (Fla. 3d DCA 1983).

7. Considering the narrow, limited scope of this proceeding, expediting discovery and the hearing date will not prejudice Petitioners. Petitioners have had and will have ample time to prepare their case, having had notice of this project since at least March 12, 2002 (Petition, ¶ 3). To accommodate Petitioners, FGT commits to provide full and prompt disclosure of discoverable information and agrees to cooperate fully with Petitioners concerning the availability of its witnesses.

8. On the other hand, delay of this proceeding will seriously prejudice FGT and the Department. Construction of the Bayside Lateral is currently scheduled to begin in June 2002. If construction is significantly delayed by this proceeding, FGT may be unable to meet contractual agreements with TECO, resulting in continuing air pollution in Hillsborough County and potentially jeopardizing TECO's ability to meet its court-enforceable order requiring reduction of its air pollution by 85%. FGT could be subject to unnecessary contract penalties from TECO if it fails to provide natural gas to the Bayside facility as required in the contract. Further, should the Bayside Lateral pipeline not be timely constructed, current downstream FGT customers might experience reductions in gas availability, potentially resulting in reduced electrical generation capabilities. FGT believes that an expedited discovery schedule and date

DRAFT

for the hearing will enable it to meet its contractual commitments, and the needs of TECO, should the Department's issuance of the permit be upheld.

9. Counsel for FGT has contacted the Petitioners and counsel for the Department concerning this motion. Counsel for FGT has been authorized to represent that the Department joins??? in this motion to expedite and agrees to the discovery accommodations set forth in paragraph 7 above???. Petitioners have indicated that they will file a response in opposition???? to this motion.

WHEREFORE, Respondent, Florida Gas Transmission Company, respectfully requests that the Administrative Law Judge enter an order setting an expedited discovery schedule and date for the final hearing in this administrative proceeding.

Respectfully submitted this __ day of May 2002.

DRAFT

Anne Longman
Florida Bar No. 0287547
Ed Steinmeyer
Florida Bar No. 0883920
John Forehand
Florida Bar No. 0979813
LEWIS, LONGMAN & WALKER, P.A.
125 South Gadsden Street, Suite 300
Post Office Box 10788 (32302)
Tallahassee, Florida 32301
Telephone: (850) 222-5702
Facsimile: (850) 224-9242

Attorneys for Respondent Florida Gas
Transmission Company

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of the foregoing was served by U. S. Mail on Elizabeth A. Enlund and David A. Pickering, Post Office Box 778, Thonotosassa, Florida 33592-0778 and Douglas W. Beeson, Assistant General Counsel, Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000 this ____ day of May 2002.

DRAFT

Attorney



Department of Environmental Protection

Marjory Stoneman Douglas Building
3900 Commonwealth Boulevard
Tallahassee, Florida 32399-3000

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Governor

David B. Struba
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5-2-02

COMMENTS:

March 23, 2002

Office of General Counsel
Department of Environmental Protection
3900 Commonwealth Boulevard
Mail Station # 35
Tallahassee, FL 32399-3000

Re: Draft Air Permit NO. 0571279-001-AC
Florida Gas Transmission Company
Hillsborough Compressor Station No. 27
Phase V Modification Project

Petition for an Administrative Proceeding

We are residents of Thonotosassa and own three adjacent parcels of land on Less Traveled Road in Thonotosassa, Florida. We live at 10315 Less Traveled Road. At the nearest point, our property is approximately 180 feet from the proposed Compressor Station 27 property on CR 579.

As such, by our close proximity to this site, we have substantial interests that will be affected by the State of Florida, Department of Environmental Protection's proposed intent to issue an Air Construction Permit to Florida Gas Transmission Company. The noise and air pollution generated at this proposed compressor station will impact us immeasurably and cause our property resale value to diminish.

We received notice of the Department's intent to issue Air Construction Permit through the Legal Notice in the classified section of the Tampa Tribune Tuesday, March 12, 2002.

We maintain that this site on CR 579 is not the original site proposed by Florida Gas Transmission Company for construction of Compressor Station No. 27 and therefore parameters relevant to this site have not been considered. Property owners whose substantial interests are affected by this proposed site were not given proper notice or time to respond to this complicated matter.

The plot plan filed by Florida Gas Transmission Company for the Application for Air Construction Permit No. 0571279-001-AC is not a plot plan for the site on CR 579 and therefore is a misrepresentation of fact.

The topography of the site on CR 579 differs significantly from the original proposed Compressor Station 27 site. The site on CR 579 has a low elevation of approximately 55 feet and a high elevation of approximately 115 feet. Directly to the west across CR 579 the land has an elevation of approximately 140 feet, the highest elevation in Hillsborough County.

On Table 2-1 (Proposed Compressor Engine 2701/2702 Specifications and Stack Parameters) a copy enclosed, the height of the stacks is to be 61.17 feet. Without a proper plot plan for this site, it would be impossible to determine if such a height is adequate to disperse pollutants and heat generated by this facility. In fact the unusual topography may concentrate pollutants and heat in certain pockets and directions. This ill effect may be heightened during the winter and spring months when dense fogs roll northward from the highest points of land toward our property and blanket us and the town, at times until late morning hours.

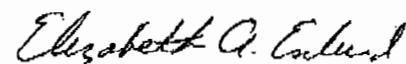
The prevailing winds for many months of the year are from a south to southwesterly direction, which would cause the pollutants generated from this site to flow in the direction of our home and property. The most populated areas of our town are within a mile of this site and downwind from the proposed facility.

Florida Gas Transmission Company states that the proposed site on CR 579 is "near the city of Thonotosassa". Thonotosassa is a rural town. This site is in close proximity to the heart of our town. It is less than 1/2 mile from Thonotosassa Park, a county park which contains much used facilities for football, baseball, softball, little league, soccer, basketball and cheerleading. Also the park has picnic pavilions, outdoor playground equipment, walking paths and a community center which has a children's daycare. This proposed compressor site is approximately 3/4 mile from Thonotosassa Elementary School, which is adjacent to the park. The proposed compressor station property is about 1/4 mile from our Post Office and Public Library.

Lake Thonotosassa is about a mile to the northeast from this proposed compressor station property and is in the direction of the prevailing wind flow. This lake is environmentally sensitive and is a year round community and recreational jewel.

Furthermore, we contend that the pressure of the gas at this site will be detrimental to the safety of this area.

We urge the State of Florida Department of Environmental Protection to deny the Air Construction Permit for this proposed Compressor Station 27 site on CR 579. This sudden change of location brings the proposed Compressor Station 27 site close to the central core of our town without regard for the topography of the proposed site. The proximity of this site to our elementary school, county park and recreational facilities, public library and the densest concentration of homes will condemn the heart of our town and residents without compensation.


Elizabeth A. Enlund


David A. Pickering

Mailing address: P.O. Box 778
Thonotosassa, FL 33592-0778
Telephone: (813) 986-8992

cc: Rick Craig
Enclosure

AQMcs

Table 2-1 Proposed Compressor Engine 2701/2702 Specifications and Stack Parameters

Parameter	Design
Compressor Engine	
Type	2701/2702
Manufacturer	Cooper-Rolls Royce
Model	501-KC7 DLE
Unit Size	7,200 bhp (ISO /w site elev.)
Specific Heat Input*	8,736 Btu/hp-hr
Maximum Fuel Consumption*	0.0605 MMscf/hr
Speed	13,600 rpm
Stack Parameters	
Stack Height	61.17 ft
Stack Diameter	86" X 66"
Exhaust Gas Flow	98,206 acfm
Exhaust Temperature	958 °F
Exhaust Gas Velocity	40.58 ft/sec
NOTE:	
*	= inches
acfm	= actual cubic feet per minute.
bhp	= brake horsepower.
Btu/bhp-hr	= British thermal units per brake horsepower per hour.
°F	= degrees Fahrenheit.
ft	= feet.
ft/sec	= feet per second.
MMscf/hr	= million standard cubic feet per hour
rpm	= revolutions per minute.
* Based on vendor provided heat input value plus 10% and a heating value for natural gas of 1040 British thermal units per standard cubic foot (Btu/scf).	



Florida
Department of
Environmental Protection

Jeb Bush
Governor

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

David Struhs
Secretary

F A X T R A N S M I T T A L S H E E T

DATE: April 8, 2002

TO: Superintendent, Hillsborough Co.

PHONE: _____

FAX: 813-272-4691

FROM: Jeff Koerner, DEP

PHONE: 850-921-9536

Division of Air Resources Management

FAX: 850.922.6979

RE: New Compressor Station No. 27

CC: _____

Total number of pages including cover sheet: 3

Message

I was asked to fax a copy of the Public Notice to you for the proposed Florida Gas Transmission project. This notice was published in the Tampa Tribune on March 12th and the comment period has closed. Please call if you have any questions

If there are any problems with this fax transmittal, please call the above phone number.

"Protect, Conserve, and Manage Florida's Environmental and Natural Resources"

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PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Draft Air Permit No. 0571279-001-AC

Florida Gas Transmission Company
Hillsborough Compressor Station No. 27
Phase V Modification Project

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit to the Florida Gas Transmission Company to add new compressor station to be located approximately two miles south of U.S. Highway 301 on County Road 579 near the city of Thonotosassa in Hillsborough County, Florida. The new compressor station is part of their Phase V projects to increase the natural gas pipeline capacity and availability. The applicant's authorized representative is Mr. Rick Craig, Vice President of Southeastern Operations. The applicant's mailing address is Florida Gas Transmission Company, P.O. Box 1188, Houston, TX 77251.

The new facility will consist of two 7222 bhp gas turbine compressor engines fired with natural gas and miscellaneous support equipment including a 585 bhp emergency generator, storage tanks, buildings and ancillary equipment. The new compressor station will have the potential to emit the following pollutants: 61 tons of carbon monoxide per year; 51 tons of nitrogen oxides per year; 4 tons of particulate matter per year; 15 tons of sulfur dioxide per year; and 14 tons of volatile organic compounds per year. Therefore, the facility is classified as a minor source of air pollution with respect to Chapters 62-212 (PSD Major Source Preconstruction Review) and 62-213.400 (Title V Major Source Air Operation Permit). The facility is not a major source of hazardous air pollutants.

The Department will issue the Final Permit with the attached conditions unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions. The Department will accept written comments concerning the proposed permit issuance action for a period of fourteen (14) days from the date of publication of this Public Notice of Intent to Issue Air Construction Permit. Written comments should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit and require, if applicable, another Public Notice.

The Department will issue the permit with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to Sections 120.569 and 120.57, F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below. Mediation is not available in this proceeding.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida, 32399-3000. Petitions filed by the permit applicant or any of the parties listed below must be filed within fourteen (14) days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S. must be filed within fourteen (14) days of publication of the public notice or within fourteen (14) days of receipt of this notice of intent, whichever occurs first. Under Section 120.60(3), F.S., however, any person who asked the Department for notice of agency action may file a petition within fourteen (14) days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner, the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when petitioner received notice of the agency action or proposed action; (d) A statement of all

NOTICE TO BE PUBLISHED IN THE NEWSPAPER

disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and (g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts upon which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

A complete project file is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:

Dept. of Environmental Protection
Bureau of Air Regulation
(111 S. Magnolia Drive, Suite 4)
2600 Blair Stone Road, MS #5505
Tallahassee, Florida, 32399-2400
Telephone: 850/488-0114
Fax: 850/922-6979

Dept. of Environmental Protection
Southwest District Office
Air Resources Section
3804 Coconut Drive
Tampa, FL 33619-8218
Telephone: 813/744-6100
Fax: 813/744-6084

Environmental Protection Commission
of Hillsborough County
Air Management Division
1410 North 21st Street
Tampa, Florida 33605
Telephone: 813/727-5530
Fax: 813/272-5605

The complete project file includes the application, Technical Evaluation and Preliminary Determination, Draft Permit, and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Department's reviewing engineer for this project for additional information at the address and phone numbers listed above.

FAX COVER SHEET

DATE: 04.05.2002

TO: NAME: Jeff Koerner

FROM: JAY MUSCHENHEIM
12 Mayfair Grove Ct.
The Woodlands, Tx 77381
Phone & Fax 281/363-0178

LOCATION: DEP - Tall

FAX NO: 850.922.6979

Total pages, including cover: 6

Reference: FGT Phase V- Alt CS 27 noise info.

Comments:

Jeff

The following pages are excerpts

from FGT's original filing to FERC

in December 1999.

of 27

The location has changed. The following

information should give you a feel of

how this information is put together.

CC: D. Pierce

Signature: Jay Muschenheim

RECEIVED

APR 08 2002

BUREAU OF AIR REGULATION

FLORIDA GAS TRANSMISSION COMPANY

PHASE V PROJECT

ACOUSTIC STUDY OF COMPRESSOR STATIONS

**BY: R. Alan Hunt, P.E.
Vibranalysis Engineering Corporation
9300 Gamebird Lane
Houston Texas 77034**

November 22, 1999

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- 1.2 Station Maps
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- 2.1 Summary of Existing Noise at Plant Boundaries

3.0 Description of New Sound Sources

- 3.1 Description of New Sound Sources

4.0 Description of Compressor Buildings

- 4.1 High Acoustic Attenuation Buildings
- 4.2 Standard Acoustic Attenuation Building
- 4.3 Station Building Schedule

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6.0 Predicted Sound Level at NSA

- 6.1 Station Noise Calculations
- 6.2 Computer Noise Maps

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APPENDIX

**Acoustic Study of Compressor Station Modification
Florida Gas Transmission Company
Phase V Project**

1.0 Introduction

The following report summarizes the findings of an acoustic study conducted to evaluate the effects of compression capacity increases at existing and new stations on the Florida Gas Transmission System. This Phase V study focused on performing the calculations necessary to confirm the expected noise contribution of compressor additions at existing and new Stations 11A, 12A, 13A, 14A, 15A, 16, 17, 24, 26, 31 and 44, serving the Florida Gas Transmission (FGT.) System. The analysis confirms that noise levels are below an L_{DN} of 55 dBA at all near NSA's.

To support and validate the calculated noise values, new equipment sound level readings were obtained from the manufacturer. Topographic maps published by the U.S. Geological Survey were obtained for each location and Florida Gas Transmission provided detailed station maps. This data was entered into SoundPlan®, a computer program designed to allow detailed study of development projects.

Both the existing compressor noise emission patterns and vendor data were compared to ensure the accuracy of model results. The effects of intake and exhaust mufflers necessary to ensure compliance with the FERC permit conditions as specified by Florida Gas Transmission have been included in the review.

The following presents a summary of the proposed new sound sources (Section 3.0), a description of the nearest sensitive receptors to each compressor station (Section 4.0), and a description of the noise computer program SoundPlan® (Section 7.0). The information presented herein is intended to comply with the FERC general instruction for filing requirements.

1.1 Station Data

Table 1

Station	11	12A	13A	14A	15A	16	17	24 New	26	31 New	44
Location	Mount Vernon, Alabama	Munson Florida	Caryville, Florida	Quincy Florida	Taylor Florida	Broker, Florida	Silver Spring, Florida	Trenton Florida	LeCanto Florida	Kissimmee, Florida	Mobile Alabama
County	Mobile	Santa Rosa	Washington	Quincy	Taylor	Bradford	Marion	Gilchrist	Citrus	Osceola	Mobile
New Units	1	1	2		1	1	2		1/1		1
Make	Solar	Solar	Motor		Solar	Caterpillar	Caterpillar		Solar	Motor	Caterpillar
Model	T-100	T-90	Cent		T-60	Recip 3612	Recip 3616		T-60/KC-9	Cent	Recip 3612
Horse Pwr	15,000	13,000	24,000		7,300	3,335	4,445		670/3,830	2,300	3,335

1.3 Summary of Noise Impact at NSA's

Florida Gas Transmission Phase V expansion project new or additional compression

Table 2

Station	Dist. To NSA	Existing L _{DN} (Dba)	Post ΦIV L _{DN} Dba	Post ΦV L _{DN} Dba	Δ Dba
11	1,360'/northeast	51.9	51.9	55.0	3.1
12	1,600'/northeast	48.0	49.7	54.4	4.7
13	1,200'/northeast	54.4	54.4	55.0	.6
14	2,900'/southwest	47.0	49.6	52.3	2.7
15	950'/east	51.4	51.4	53.1	1.7
16	1,600'/southeast	49.1	49.1	49.2	.1
17	10,000'/southwest		31.3	34.0	2.7
24	1,900'/southeast		47.4	50.1	2.7
26	1,200'/southwest	46.0	52.4	54.5	2.1
31	950'/northeast			49.4	
44	700'/northeast			52.0	

2.0 Description of Existing Station Noise

Station 11

Sound level readings were taken on September 7th and 8th, 1999 at all four corners of the Station 11 property (Figure 1). Readings were taken at 11:00 a.m., wind was 5-10 MPH from the southwest, and temperature was 82° F. Two Larson Davis model 700 and two Larson Davis 820 environmental noise loggers were used at the four corners. A Rion NA-29 octave band analyzer and a Rion NC-73 sound calibrator were utilized to collect hand held readings.

Highway traffic is almost continuous with a high mix of heavy trucking effecting readings at the NSA's. To calculate the traffic noise contribution readings were taken 100 feet from the Phase III turbine compressor building at Point A on Figure 1. The contribution of the plant at NSA's can be calculated as below:

$$L_{NSA2} = L - 20 \log D_1/D_2$$

Where:

L = measure noise level at distance D₁, dB (66.4 dBA)

L_{NSA2} = calculated noise level at distance D₂, dB

D₁ = distance in feet (100)

Station	Data Point	L _{EQ} (Day)	L _{EQ} (Night)	L _{DN}
31	1	51.4	44.0	52.6
	2	50.6	44.0	52.2
44	1	47.1	37.4	47.2
	2	37.4	30.0	38.6

3.0 Description of New Sound Sources

The two new compressor stations and the nine existing station upgrades have a variety of new and modified compressors. The effect of horsepower on generated noise has been established through sound tests to approximate the Equation 1 below:

$$\text{Increase in dB} = 17 \text{ LOG HP ratio}^1 \quad (1)$$

The new solar gas turbine/compressors noise characteristics are taken from the "Noise Prediction - Guidelines for Industrial Gas Turbines" publication by Solar Turbines.

3.1 Description of New Sound Sources

Table 5 lists the new or modified noise sources octave band sound power levels utilized in the noise calculations and noise modeling.

Table 5 - Un-muffled Sound Power Data

Machine	Noise Source	Noise Octave Center Frequency, Hz								
		63	125	250	500	1K	2K	4K	8K	DBA
Cat Recip	Engine/Comp	109	111	110	106	101	99	95	86	108
	Intake	77	84	88	96	97	86	85	77	99.0
	Exhaust	103	104	93	86	80	76	74	65	91.2
Solar Saturn 20	Unenclosed Package	113	112	115	114	108	108	109	111	117
	Intake	103	105	109	113	120	122	126	137	137
	Exhaust	123	122	121	119	118	114	110	99	122
Solar Taurus 60	Unenclosed Package	117	118	120	119	113	110	109	110	120
	Intake	122	116	114	118	122	128	149	142	151
	Exhaust	131	129	127	128	129	127	122	117	133
Solar Taurus 90	Unenclosed Package	119	120	121	120	114	111	110	110	121
	Intake	123	117	115	120	123	129	150	142	152
	Exhaust	133	131	128	129	130	128	122	117	134
Solar Mars 100	Unenclosed Package	109	113	113	115	111	120	118	113	124
	Intake	124	124	124	124	126	130	158	151	159
	Exhaust	121	120	118	119	117	111	102	85	121

¹ Machinery acoustics, Geo. M. Diehl, John Wiley and Sons, Inc.

COMMISSION

PAT FRANK
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JAN PLATT
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STACEY EASTERLING

EXECUTIVE DIRECTOR

RICHARD D. GARRITY, Ph.D.

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ADMINISTRATIVE OFFICES, LEGAL &
WATER MANAGEMENT DIVISION
1900 - 9TH AVENUE
TAMPA, FLORIDA 33605
TELEPHONE (813) 272-5960
FAX (813) 272-5157

AIR MANAGEMENT DIVISION
TELEPHONE (813) 272-5530

WASTE MANAGEMENT DIVISION
TELEPHONE (813) 272-5788

WETLANDS MANAGEMENT DIVISION
TELEPHONE (813) 272-7104

**ENVIRONMENTAL PROTECTION COMMISSION
of Hillsborough County**

FAX Transmittal Sheet

DATE: March 26, 2002

TO: Jeff Heima / Mike Halpin

FAX Phone: 850-922-6979 **Voice Phone:** _____

TOTAL NUMBER OF PAGES INCLUDING THIS COVER PAGE: 3

EPC FAX Transmission Line: (813) 272-5605
For retransmission or any FAX problems, call:
(813) 272-5530 ext. 1288

FROM: Rob Halch

(Circle applicable section below)

Air Division

-Compliance

-Enforcement/Analysis

-Monitoring/Toxics

-Permitting

SPECIAL INSTRUCTIONS: Comments on the Florida Gas Transmission Company (0570278-001-AC).

COMMISSION

PAT FRANK
CHRIS HART
JIM NORMAN
JAN PLATT
THOMAS SCOTT
RONDA STORMS
STACEY EASTERLING

EXECUTIVE DIRECTOR

RICHARD D. GARRITY, Ph.D.



ADMINISTRATIVE OFFICES,
LEGAL & WATER MANAGEMENT DIVISION
THE ROGER P. STEWART ENVIRONMENTAL CENTER
1900 - 9TH AVENUE • TAMPA, FLORIDA 33605
PHONE (813) 272-5960 • FAX (813) 272-5157

AIR MANAGEMENT DIVISION
FAX (813) 272-5605

WASTE MANAGEMENT DIVISION
FAX (813) 276-2256

WETLANDS MANAGEMENT DIVISION
FAX (813) 272-7144

1410 N. 21ST STREET • TAMPA, FLORIDA 33605

MEMORANDUM

DATE: March 26, 2002

TO: Jeff Koerner, P.E.
Florida Department of Environmental Protection

FROM: Alice H. Harman, P.E. **THRU:** Jerry R. Campbell, P.E.

SUBJECT: Florida Gas Transmission, Station No. 27, 0571279-001-AC

Based upon the Intent to Issue received on March 7, 2002, EPC staff would like to offer the following comments:

1. **Noise:** While the EPC recognizes that the State does not have a noise rule and is precluded from including any local standards in their permits, the applicant has provided to FERC an Environmental Assessment of the noise impacts. In order to meet the EPA Ldn noise guidelines of 55dBA, they have proposed to "install the compressor units in sound-attenuated enclosed buildings" and "the units would have intake and exhaust silencers and would be installed in an acoustically treated compressor building". The FERC Certificate Condition No. 32 requires the facility to perform a noise survey 60 days after start-up and gives one year to take corrective action for any noise exceedances. However, Rules of the EPC Chapter 1-10 include a 55dBA residential nighttime standard that the facility would have to meet effective from day one of operation. Thus we would require corrective actions to be taken to mitigate any noise violation as soon as possible. Therefore, the EPC staff would like to see the FERC requirements referenced in the project description and FGT being placed on notice that they will have to meet our local requirements from start up.
2. **Odor:** In Section 4:Appendix SC – Standard Conditions No. 7 has the standard language prohibiting objectionable odor. Based upon staff inspections at the other compressor station in Hillsborough County and the close proximity of residences to this new station, there may be a potential for odor complaints. EPC staff recommends including a requirement in this permit for FGT to provide a Preventive Maintenance and Inspection Plan as part of its operation permit application. The Plan should address the potential sources of odor and should be designed to minimize fugitive

www.epchc.org

E-Mail: epcinfo@epchc.org

Jeff Koerner, P.E.
Page Two

BEST AVAILABLE COPY

leaks. This could be reviewed and approved as part of the operating permit application process

Thank-you for allowing EPC staff to comment on this permit. If you have any questions, please contact our office.

ahh

111 Kelsey Suite A
Tampa, Fl. 33619
Phone: 813-655-7441
Fax: 813-655-3951



Fax

To: Sell Keener From: Jim Harrison
 Fax: 850/922-6979 Pages: 5/with cover
 Phone: _____ Date: 03/21/02
 Re: C527 Noise Survey CC: _____

Urgent For Review Please Comment Please Reply Please Recycle

● Comments:

Sell,
 Sorry for taking so long. I couldn't locate my copy of this report here. I asked FGT Regulatory to fax a copy sent to FEI2C.

Also, I spoke with Duane Pierce regarding the air dispersion model. He said he was emailing a copy to you.

Let me know if you need anything more.

Thanks -

Jim



Florida Gas Transmission Company

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

June 18, 2001

Mr. David Boergers, Secretary
Federal Energy Regulatory Commission
888 First Street, N.E., Room 1A
Washington, D.C. 20426

Re: Florida Gas Transmission Company
Phase V Expansion Project
Supplemental Information Requested from Staff
Docket No. CP00-40-001

Dear Mr. Boergers:

Florida Gas Transmission Company (FGT) submits herewith an original and seven copies of this letter submitting information requested by Staff for the Draft Environmental Impact Statement (DEIS) issued by the Office of Pipeline Regulation of the Federal Energy Regulatory Commission (FERC).

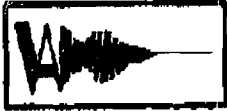
FGT is filing only one copy of the Background Noise Survey of Alternative Station 27 Site with the FERC Office of the Secretary. In addition, copies are being submitted directly to Ms. Lauren O'Donnell of the FERC Environmental Staff and to Mr. JH Rumpff of Foster Wheeler.

Also, enclosed are four copies of this letter to be date stamped and returned to the messenger.

Respectfully submitted,

Stephen T. Veatch, Director
Certificates & Regulatory Reporting
(713) 853-6549

cc: Ms. Lauren O'Donnell, FERC Environmental Staff
Mr. JH Rumpff, Foster Wheeler



**Vibranalysis
Engineering
Corporation**

June 11, 2001

Jim Thompson
Florida Gas Transmission
111 Kelsey Lane
Tampa FL 33619

Dear Mr. Thompson:

RE: Background Noise Survey of Alternative Station 27 Site

A background noise survey was made at the alternative Station 27 site near Tampa, Florida on June 5 through 6, 2001. The alternate site is located in Hillsborough county, along County Road 570. The nearest sensitive receptor (NSA 1) is approximately 90 feet north of the proposed property line and NSA 2 is located across the road, parallel to NSA 1. Map 1 attached shows the location of the alternative site and the locations of NSA 1 and 2. Four noise data points are shown on Map 1, where both 1 hour and 4 minute L_{eq} background noise levels were taken. A rain shower at 18:00 and 20:00 on June 5th elevated the data along with 08:00 on June 6th at Point 1 when the data collector was investigate by the Sheriff department.

The nighttime data (L_N from 22:00 to 07:00) are listed below in dBA.

Point	L_N	L_{min}
1	58.1	51.8
2	49.0	44.0
3	45.4	43.7
4	55.8	48.1

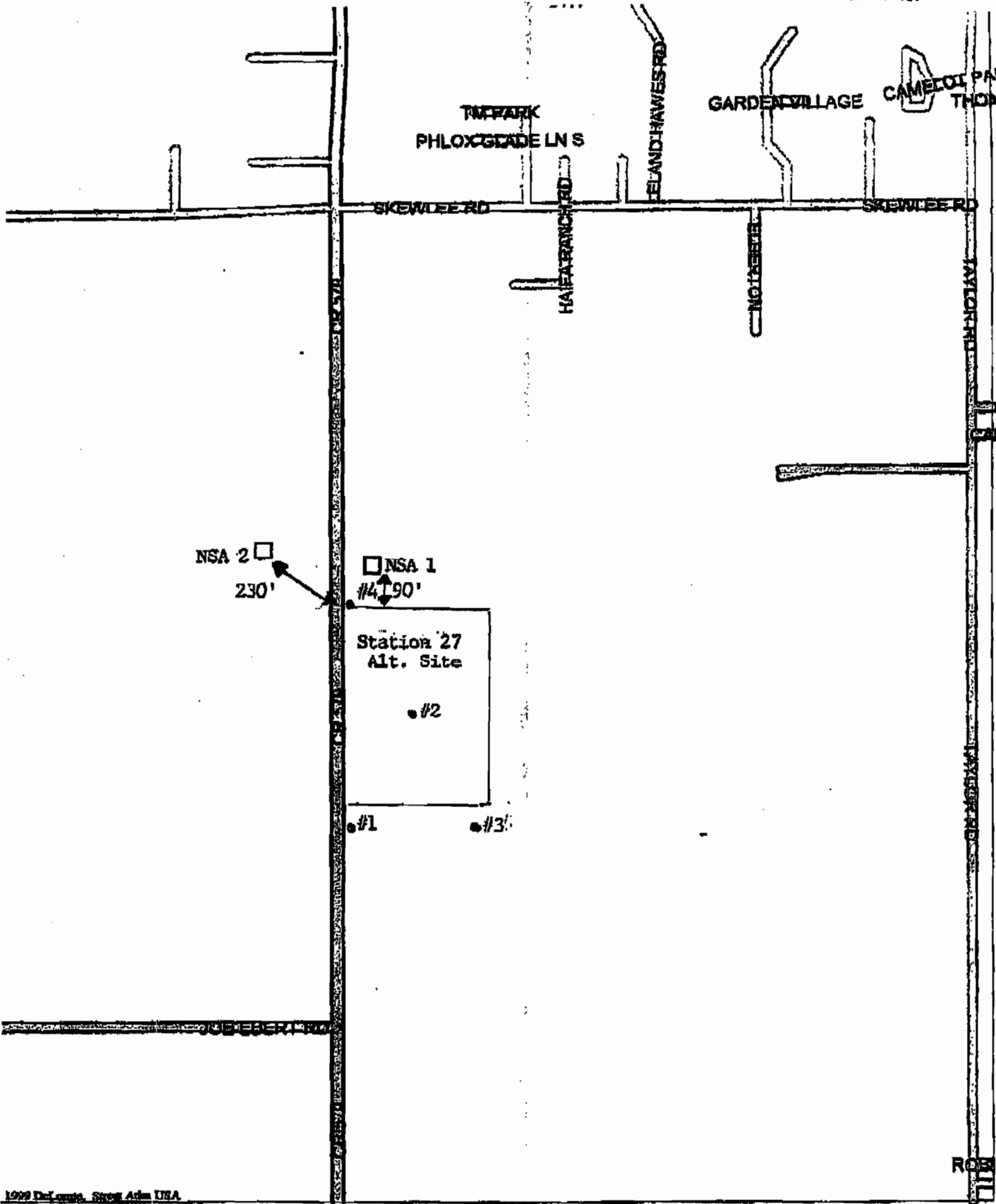
Point 2 is the center of the property and best represents the site levels. Points 1 and 4 were next to County Road 579 and were affected by road traffic. They represent levels approximately 1 dB higher than would be expected at NSA 1 and 2. Map 2 shows the general location of the property. Due to the proximity of the nearest sensitive receptors to the property, I recommend placing the compressors/cooler slightly south of the property center.

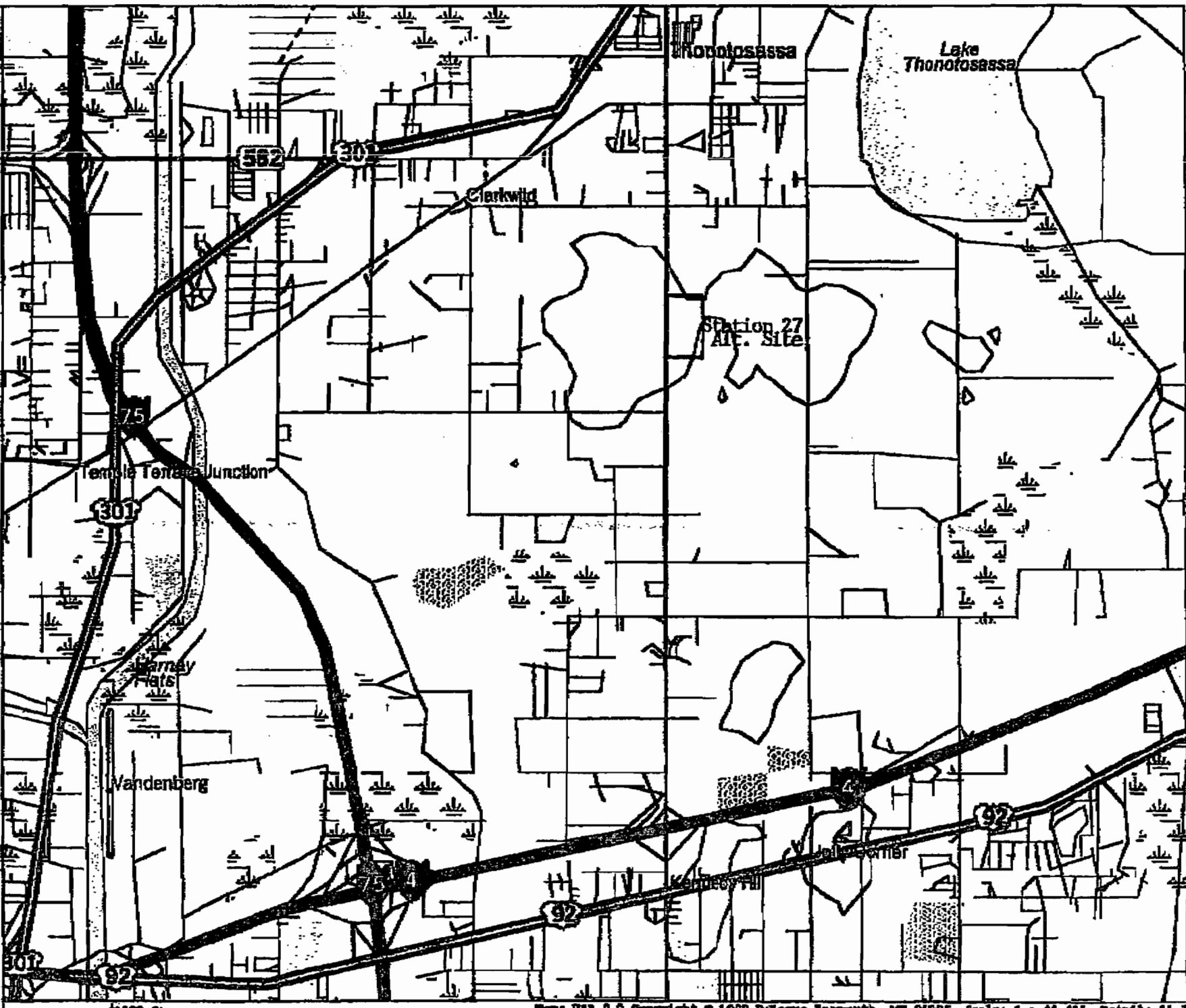
Thank you for allowing Vibranalysis Engineering Corporation to be of service. If you have any questions, please do not hesitate to call.

Sincerely,

L. D. Harber
for R. Alan Hunt, P.E.
Vice President

CC: Stephen Veatch





111 Kelsey Suite A
Tampa, Fl. 33619
Phone: 813-655-7441
Fax: 813-655-3951



Fax

To: Jeff Keener From: Jim Thompson
 Fax: 850/922-6979 Pages: 5/with cover
 Phone: _____ Date: 03/21/02
 Re: C527 Noise Survey CC: _____

Urgent For Review Please Comment Please Reply Please Recycle

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Florida Gas Transmission Company

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Stephen T. Veatch, Director
Certificates & Regulatory Reporting
(713) 853-6549

cc: Ms. Lauren O'Donnell, FERC Environmental Staff
Mr. JH Rumpp, Foster Wheeler



**Vibranalysis
Engineering
Corporation**

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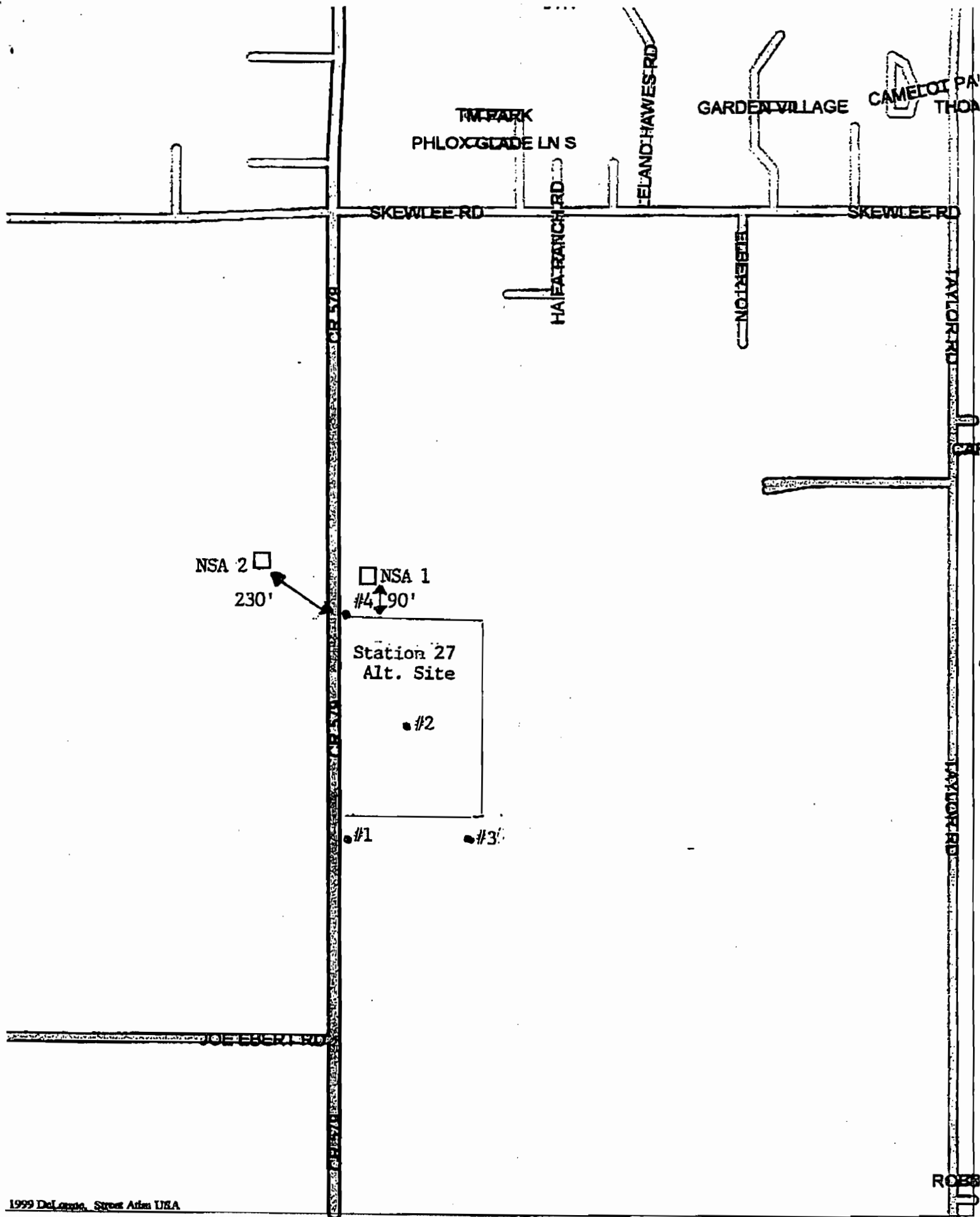
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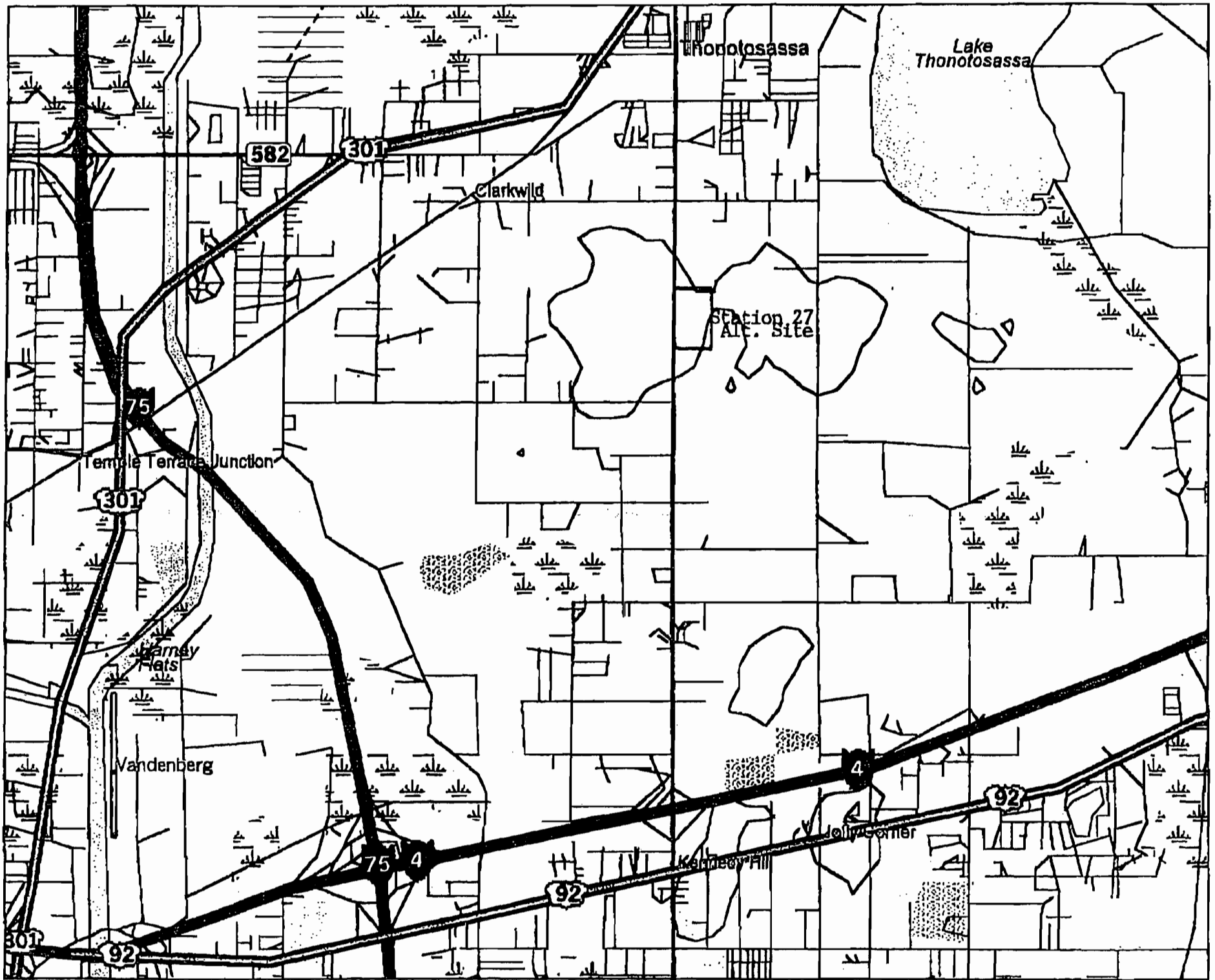
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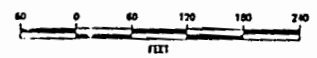
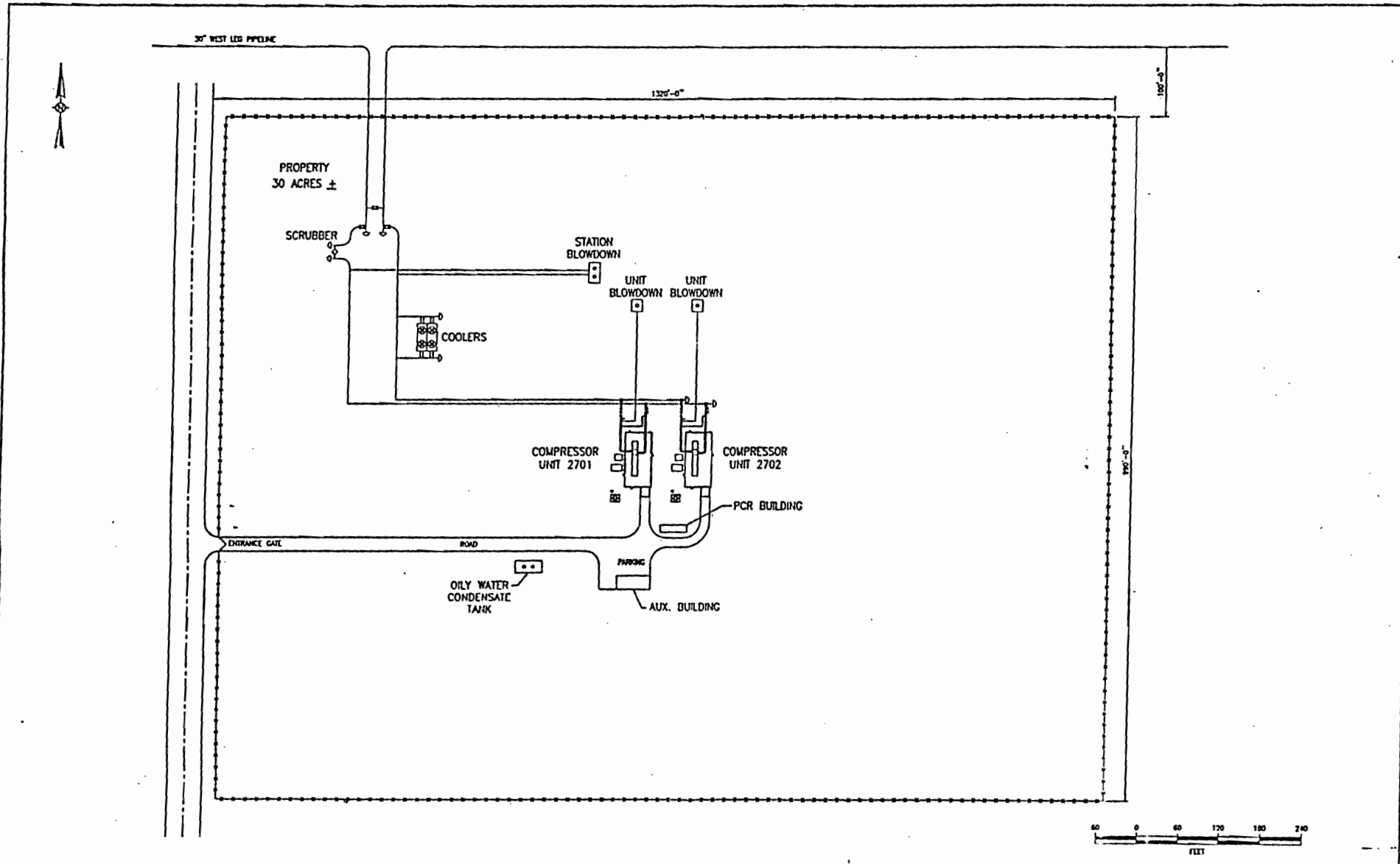
Sincerely,

R. Alan Hunt
for R. Alan Hunt, P.E.
Vice President

CC: Stephen Veatch







REFERENCE DRAWING SHEET NO. _____ TITLE _____ DATE _____	CHECKED BY: _____ DATE: _____	APPROVED BY: _____ DATE: _____	EST. IN CONSTRUCTION TO: 2000	Eran Engineering & Construction Co. Florida Gas Transmission Co., Houston, Texas	PROJECT NO.: C.0050 SHEET NO.: 3.42 DATE: 5-1-A SHEET: 1 OF 1
	PELLY BY: _____ DATE: _____	BO BY: _____ DATE: _____	ANNUAL PLF 100		
	CONTROL BY: _____ DATE: _____	CADRE BY: _____ DATE: _____	SCALE: 1"=100'-0" @ 34"X44"		
	C. DESIGNED FOR APPROVAL	REVISION - DESCRIPTION NO. _____	DATE: _____		
	NO. _____	DATE: _____	DATE: _____		

Jeff,

3/19/02

Jim Thompson asked me to
send the enclosed information
for C.S. 27. (Usep MAP+Plot)

I have also enclosed the
proof of publication for C.S.
27. The Notice ran on
March 12th.

THANKS,

Heather Kendrick
813-655-7441

RECEIVED
MAR 20 2002
BUREAU OF AIR REGULATION

Jeff,

Jim Thompson asked me
to forward the attached
Aerial Site Plans on
to you

Please call if you
have any questions.

Thanks,

Heather Kendrick
813-655-7441

RECEIVED
APR 08 2002
BUREAU OF AIR REGULATION



COMPRESSOR STATION NO. 27
FGT PHASE V EXPANSION
AERIAL SITE PLAN

AVAILABLE IN FILE



Base Map U.S.G.S. 7.5 Minute
 Quad Mapa (s): THONOTOSASSA, FL

W.O.	C.5005063.42		2001 Construction			
Dr. By	Date		Scale			
			1" = 1/2 MILE			
Dwg. Stat.	Ckd. By	Date	App. By	Date	App. By	Date
Prel'y.						
Bid						
Const.						

FGT Technical Services
 Maitland, Florida

**FGT PHASE V EXPANSION
 NEW COMPRESSOR STATION 27
 PROPOSED AND ALTERNATE
 LOCATIONS
 HILLSBOROUGH COUNTY, FLORIDA**

**Florida Gas
 Transmission
 Company**

An (GTS) / (GTS) Affiliate

THE TAMPA TRIBUNE
Published Daily
Tampa, Hillsborough County, Florida

State of Florida }
County of Hillsborough } ss.

RECEIVED
MAR 16 2002
BY: _____

Before the undersigned authority personally appeared J. Rosenthal, who on oath says that she is Advertising Billing Manager of The Tampa Tribune, a daily newspaper published at Tampa in Hillsborough County, Florida; that the attached copy of advertisement being a

LEGAL NOTICE

in the matter of PUBLIC NOTICE OF INTENT

was published in said newspaper in the issues of MARCH 12, 2002

Affiant further says that the said The Tampa Tribune is a newspaper published at Tampa in said Hillsborough County, Florida, and that the said newspaper has heretofore been continuously published in said Hillsborough County, Florida, each day and has been entered as second class mail matter at the post office in Tampa, in said Hillsborough County, Florida for a period of one year next preceding the first publication of the attached copy of advertisement; and affiant further says that she has neither paid nor promised any person, this advertisement for publication in the said newspaper.

J. Rosenthal

Sworn to and subscribed by me, this 15 day
of MARCH, A.D. 20 02

Personally Known or Produced Identification _____
Type of Identification Produced _____

Susie Lee Slaton

NOTARY PUBLIC OFFICIAL NOTARY SEAL
SUSIE LEE SLATON
COMMISSION NUMBER
DD000060
MY COMMISSION EXP.
APRIL 16, 2005

RECEIVED
MAR 20 2002
BUREAU OF AIR REGULATION

**PUBLIC NOTICE OF INTENT
TO ISSUE AIR
CONSTRUCTION PERMIT
STATE OF FLORIDA
DEPARTMENT OF
ENVIRONMENTAL
PROTECTION**
Draft Air Permit No.
0571279-001-AC
Florida Gas Transmission
Company
Hillsborough Compressor
Station No. 27
Phase V Modification
Project

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit to the Florida Gas Transmission Company to add new compressor station to be located approximately two miles south of U.S. Highway 301 on County Road 579 near the city of Thonotosassa in Hillsborough County, Florida. The new compressor station is part of their Phase V projects to increase the natural gas pipeline capacity and availability. The applicant's authorized representative is Mr. Rick Craig, Vice President of Southeastern Operations. The applicant's mailing address is Florida Gas Transmission Company, P.O. Box 1188, Houston, TX 77251.

The new facility will consist of two 7222 bhp gas turbine compressor engines fired with natural gas and miscellaneous support equipment including a 585 bhp emergency generator, storage tanks, buildings and ancillary equipment. The new compressor station will have the potential to emit the following pollutants: 61 tons of carbon monoxide per year; 51 tons of nitrogen oxides per year; 4 tons of particulate matter per year; 15 tons of sulfur dioxide per year; and 14 tons of volatile organic compounds per year. Therefore, the facility is classified as a minor source of air pollution with respect to Chapters 62-212 (PSD Major Source Preconstruction Review) and 62-213.400 (Title V Major Source Air Operation Permit). The facility is not a major source of hazardous air pollutants.

The Department will issue the Final Permit with the attached conditions unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions. The Department will accept written comments concerning the proposed permit issuance action for a period of fourteen (14) days from the date of publication of this Public Notice of Intent to Issue Air Construction Permit. Written comments should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit and require, if applicable, another Public Notice.

The Department will issue the permit with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to Sections 120.569 and 120.57, F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below. Mediation is not available in this proceeding.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida, 32399-3000. Petitions filed by the permit applicant or any of the parties listed below must be filed within fourteen (14) days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S., must be filed within fourteen (14) days of publication of the public notice of intent. Fourteen (14) days of receipt of this notice of intent, whichever occurs first. Under Section 120.60(3), F.S.; however, any person who asked the Department for notice of agency action may file a petition within fourteen (14) days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner, the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and (g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts upon which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

A complete project file is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:

Dept. of Environmental Protection
Bureau of Air Regulation
(111 S. Magnolia Drive, Suite 4)
2600 Blair Stone Road, MS. #5505

Tallahassee, Florida,
32399-2400
Telephone: 850/488-0114
Fax: 850/922-6979

Dept. of Environmental Protection
Southwest District Office
Air Resources Section
3804 Coconut Drive
Tampa, FL 33619-8218
Telephone: 813/744-6100
Fax: 813/744-6084

Environmental Protection Commission
of Hillsborough County
Air Management Division
1410 North 21st Street
Tampa, Florida 33605
Telephone: 813/727-5530
Fax: 813/272-5605

The complete project file includes the application, Technical Evaluation and Preliminary Determination, Draft Permit, and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Department's reviewing engineer for this project for additional information at the address and phone numbers listed above.



Department of Environmental Protection

Jeb Bush
Governor

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

David B. Struhs
Secretary

March 4, 2002

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Rick Craig, V.P. of Southeastern Operations
Florida Gas Transmission Company
P.O. Box 1188
Houston, TX 77251

Re: Draft Air Permit No. 0571279-001-AC
Hillsborough Compressor Station No. 27
Phase V Modification Project

Dear Mr. Craig:

Enclosed is one copy of the Draft Permit to construct a new compressor station to be located approximately two miles south of U.S. Highway 301 on County Road 579 near the city of Thonotosassa in Hillsborough County, Florida. The Department's "Technical Evaluation and Preliminary Determination", "Intent to Issue Permit", and the "Public Notice of Intent to Issue Permit" are also included.

The "Public Notice of Intent to Issue Permit" must be published one time only, as soon as possible, in the legal advertisement section of a newspaper of general circulation in the area affected, pursuant to the requirements Chapter 50, Florida Statutes. Proof of publication, i.e., newspaper affidavit, must be provided to the Department's Bureau of Air Regulation office within seven days of publication. Failure to publish the notice and provide proof of publication may result in the denial of the permit.

Please submit any written comments you wish to have considered concerning the Department's proposed action to A. A. Linero, Administrator of the New Source Review Section, at the above letterhead address. If you have any other questions, please contact Jeff Koerner at 850/921-9536.

Sincerely,

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

CHF/AAI/jfk

Enclosures

"More Protection, Less Process"

Printed on recycled paper.

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Mr. Rick Craig
 V.P. of Southeastern Operations
 Florida Gas Transmission Company
 P.O. Box 1188
 Houston, TX 77251

COMPLETE THIS SECTION ON DELIVERY

A. Received by (Please Print Clearly) B. Date of Delivery

[Signature] MAR 09 2002

C. Signature Agent
 Addressee

D. Is delivery address different from item 1? Yes
 If YES, enter delivery address below: No

3. Service Type
 Certified Mail Express Mail
 Registered Return Receipt for Merchandise
 Insured Mail C.O.D.

4. Restricted Delivery? (Extra Fee) Yes

7001 0320 0001 3692 9267

PS Form 3811, July 1999

Domestic Return Receipt

102595-00-M-05

**U.S. Postal Service
 CERTIFIED MAIL RECEIPT
 (Domestic Mail Only; No Insurance Coverage Provided)**

OFFICIAL USE

7001 0320 0001 3692 9267

Postage	\$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$

Postmark
Here

Sent To
 Rick Craig
 Street, Apt. No.,
 or PO Box No. Box 1188
 City, State, ZIP+4
 Houston, TX 77251

PS Form 3800, January 2001

See Reverse for Instructions

PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Draft Air Permit No. 0571279-001-AC

Florida Gas Transmission Company
Hillsborough Compressor Station No. 27
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A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner, the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when petitioner received notice of the agency action or proposed action; (d) A statement of all

NOTICE TO BE PUBLISHED IN THE NEWSPAPER

disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and (g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts upon which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

A complete project file is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:

Dept. of Environmental Protection
Bureau of Air Regulation
(111 S. Magnolia Drive, Suite 4)
2600 Blair Stone Road, MS #5505
Tallahassee, Florida, 32399-2400
Telephone: 850/488-0114
Fax: 850/922-6979

Dept. of Environmental Protection
Southwest District Office
Air Resources Section
3804 Coconut Drive
Tampa, FL 33619-8218
Telephone: 813/744-6100
Fax: 813/744-6084

Environmental Protection Commission
of Hillsborough County
Air Management Division
1410 North 21st Street
Tampa, Florida 33605
Telephone: 813/727-5530
Fax: 813/272-5605

The complete project file includes the application, Technical Evaluation and Preliminary Determination, Draft Permit, and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Department's reviewing engineer for this project for additional information at the address and phone numbers listed above.

NOTICE TO BE PUBLISHED IN THE NEWSPAPER

In the Matter of an
Application for Air Permit by:

Florida Gas Transmission Company
P.O. Box 1188
Houston, TX 77251

Authorized Representative:

Mr. Rick Craig, V.P. of Southeastern Operations

Draft Air Permit No. 0571279-001-AC
New Compressor Station No. 27
Phase V Modification Project
Hillsborough County

INTENT TO ISSUE AIR CONSTRUCTION PERMIT

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit (copy of Draft Permit attached) for the proposed project as detailed in the application and the enclosed Technical Evaluation and Preliminary Determination, for the reasons stated below. The applicant, Florida Gas Transmission Company, applied on January 28, 2002 to the Department for a permit to construct a new compressor station to be located approximately two miles south of U.S. Highway 301 on County Road 579 near the city of Thonotosassa in Hillsborough County, Florida. The new station will consist of two 7222 bhp gas turbine compressor engines miscellaneous support equipment including a 585 bhp emergency generator, storage tanks, buildings and ancillary equipment.

The Department has permitting jurisdiction under the provisions of Chapter 403 of the Florida Statutes (F.S.), and Chapters 62-4, 62-210, and 62-212 of the Florida Administrative Code (F.A.C.). The above actions are not exempt from permitting procedures. The Department has determined that an air construction permit is required to perform proposed work. The Department intends to issue this air construction permit based on the belief that the applicant has provided reasonable assurances to indicate that operation of these emission units will not adversely impact air quality, and the emission units will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297, F.A.C.

Pursuant to Section 403.815, F.S., and Rule 62-110.106(7)(a)1, F.A.C., you (the applicant) are required to publish at your own expense the enclosed Public Notice of Intent to Issue Air Construction Permit. The notice shall be published one time only in the legal advertisement section of a newspaper of general circulation in the area affected. Rule 62-110.106(7)(b), F.A.C., requires that the applicant cause the notice to be published as soon as possible after notification by the Department of its intended action. For the purpose of these rules, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in the county where the activity is to take place. If you are uncertain that a newspaper meets these requirements, please contact the Department at the address or telephone number listed below. The applicant shall provide proof of publication to the Department's Bureau of Air Regulation, at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400 (Telephone: 850/488-0114, Fax: 850/ 922-6979). You must provide proof of publication within seven days of publication, pursuant to Rule 62-110.106(5), F.A.C. No permitting action for which published notice is required shall be granted until proof of publication of notice is made by furnishing a uniform affidavit in substantially the form prescribed in Section 50.051, F.S. to the office of the Department issuing the permit. Failure to publish the notice and provide proof of publication may result in the denial of the permit pursuant to Rules 62-110.106(9) and (11), F.A.C.

The Department will issue the final permit with the attached conditions unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The Department will accept written comments concerning the proposed permit issuance action for a period of fourteen (14) days from the date of publication of Public Notice of Intent to Issue Air Permit. Written comments and should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit and require, if applicable, another Public Notice.

The Department will issue the permit with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to Sections 120.569 and 120.57 F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900

Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida, 32399-3000. Petitions filed by the permit applicant or any of the parties listed below must be filed within fourteen (14) days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S. must be filed within fourteen (14) days of publication of the public notice or within fourteen (14) days of receipt of this notice of intent, whichever occurs first. Under Section 120.60(3), F.S. however, any person who asked the Department for notice of agency action may file a petition within fourteen (14) days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner, the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and (g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts upon which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

In addition to the above, a person subject to regulation has a right to apply for a variance from or waiver of the requirements of particular rules, on certain conditions, under Section 120.542, F.S. The relief provided by this state statute applies only to state rules, not statutes, and not to any federal regulatory requirements. Mediation is not available in this proceeding. Applying for a variance or waiver does not substitute or extend the time for filing a petition for an administrative hearing or exercising any other right that a person may have in relation to the action proposed in this notice of intent.


The application for a variance or waiver is made by filing a petition with the Office of General Counsel of the Department, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. The petition must specify the following information: (a) The name, address, and telephone number of the petitioner; (b) The name, address, and telephone number of the attorney or qualified representative of the petitioner, if any; (c) Each rule or portion of a rule from which a variance or waiver is requested; (d) The citation to the statute underlying (implemented by) the rule identified in (c) above; (e) The type of action requested; (f) The specific facts that would justify a variance or waiver for the petitioner; (g) The reason why the variance or waiver would serve the purposes of the underlying statute (implemented by the rule); and (h) A statement whether the variance or waiver is permanent or temporary and, if temporary, a statement of the dates showing the duration of the variance or waiver requested.

The Department will grant a variance or waiver when the petition demonstrates both that the application of the rule would create a substantial hardship or violate principles of fairness, as each of those terms is defined in Section

120.542(2), F.S., and that the purpose of the underlying statute will be or has been achieved by other means by the petitioner.

Persons subject to regulation pursuant to any federally delegated or approved air program should be aware that Florida is specifically not authorized to issue variances or waivers from any requirements of any such federally delegated or approved program. The requirements of the program remain fully enforceable by the Administrator of the EPA and by any person under the Clean Air Act unless and until the Administrator separately approves any variance or waiver in accordance with the procedures of the federal program.

Executed in Tallahassee, Florida.


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

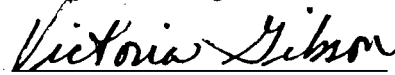
CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Intent to Issue Air Construction Permit package (including the Public Notice of Intent to Issue Air Construction Permit, Technical Evaluation and Preliminary Determination, and the Draft Permit) was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on 3/4/02 to the persons listed:

Mr. Rick Craig, FGTC*
Mr. Jim Thompson, FGTC
Mr. Kevin McGlynn, McGlynn Consulting Co.
Mr. V. Duane Pierce, AQMcS
Mr. Jerry Campbell, EPC of HC
Mr. Gerry Kissel, SWD

Clerk Stamp

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

 March 4, 2002
(Clerk) (Date)

**TECHNICAL EVALUATION
&
PRELIMINARY DETERMINATION**

PROJECT

Draft Air Construction Permit No. 0571279-001-AC
New Gas Turbine Compressor Station No. 27
(Emissions Unit Nos. 001, 002, and 003)

COUNTY

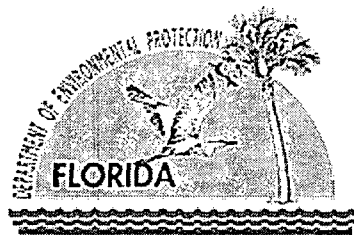
Hillsborough County

APPLICANT

Florida Gas Transmission Company
ARMS Facility ID No. 0571279
New Hillsborough Compressor Station No. 27

**PERMITTING
AUTHORITY**

Florida Department of Environmental Protection
Division of Air Resources Management
Bureau of Air Regulation
New Source Review Section



March 4, 2002

{Filename: FGT 27V TEPD.DOC}

1. GENERAL PROJECT INFORMATION

1.1 Applicant Name and Address

Florida Gas Transmission Company
P.O. Box 1188
Houston, TX 77251

Authorized Representative:

Mr. Rick Craig, V.P. of Southeastern Operations

1.2 Processing Schedule

01/28/02: Received the application for a minor source air pollution construction permit; complete.

1.3 Facility Description and Location

The applicant proposes to construct a new compressor station in to be located approximately two miles south of U.S. Highway 301 on County Road 579 near the city of Thonotosassa in Hillsborough County, Florida. The UTM coordinates are Zone 17, 372.16 km East, and 3102.41 km North.

1.4 Standard Industrial Classification Code (SIC)

SIC No. 4922 – Natural Gas Transmission

1.5 Regulatory Categories

Title III: Based on the application, the facility is not a major source of hazardous air pollutants (HAP).

Title IV: Based on the application, the facility is not subject to acid rain provisions of the Clean Air Act.

Title V: Because potential emissions of regulated pollutants do not exceed 100 tons per year, the facility is not Title V major source of air pollution in accordance with Chapter 213, F.A.C. Regulated pollutants include pollutants such as carbon monoxide (CO), nitrogen oxides (NO_x), particulate matter (PM/PM₁₀), sulfur dioxide (SO₂), and volatile organic compounds (VOC).

PSD: Because potential emissions of regulated pollutants do not exceed 250 tons per year, the facility is not classified as a major source of air pollution with respect to Rule 62-212.400, F.A.C., the Prevention of Significant Deterioration (PSD) of Air Quality.

NSPS: New gas turbines are subject to the New Source Performance Standards in 40 CFR 60, Subpart GG.

1.6 Project Description

The applicant proposes to construct a new compressor station to be located near the city of Thonotosassa in Hillsborough County, Florida. The new station will consist of two 7222 bhp gas turbine compressor engines and miscellaneous support equipment including a 585 bhp emergency generator, storage tanks, buildings and ancillary equipment. The proposed project is part of Florida Gas Transmission Company's Phase V projects intended to increase the natural gas pipeline capacity and availability. The Bureau of Air Regulation processed this application because Florida Gas Transmission requested that all Phase V projects be reviewed in Tallahassee for purposes of consistency.

2. APPLICABLE REGULATIONS

2.1 State Regulations

This project is subject to the applicable environmental laws specified in Section 403 of the Florida Statutes (F.S.). The Florida Statutes authorize the Department of Environmental Protection to establish rules and regulations regarding air quality as part of the Florida Administrative Code (F.A.C.). This project is subject to the applicable rules and regulations defined in the following Chapters of the Florida Administrative Code.

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

<u>Chapter</u>	<u>Description</u>
62-4	Permitting Requirements
62-204	Ambient Air Quality Requirements, PSD Increments, and Federal Regulations Adopted by Reference
62-210	Required Permits, Public Notice and Comments, Reports, Stack Height Policy, Circumvention, Excess Emissions, Forms and Instructions,
62-212	Preconstruction Review, PSD Requirements, and BACT Determinations
62-213	Operation Permits for Major Sources of Air Pollution
62-296	Emission Limiting Standards
62-297	Test Methods and Procedures, Continuous Monitoring Specifications, and Alternate Sampling Procedures

2.2 Federal Regulations

This project is also subject to the applicable federal provisions regarding air quality as established by the EPA in the following sections of the Code of Federal Regulations (CFR).

<u>Title 40, CFR</u>	<u>Description</u>
Part 60	Subpart A - General Provisions for NSPS Sources NSPS Subpart GG - Stationary Gas Turbines Applicable Appendices

3. EMISSIONS STANDARDS

3.1 Brief Discussion of Emissions

The following text is an excerpt on stationary gas turbines from Section 3.1 EPA's AP-42 emission factor document:

"The primary pollutants from gas turbine engines are nitrogen oxides (NO_x), carbon monoxide (CO), and to a lesser extent, volatile organic compounds (VOC). Particulate matter (PM) is also a primary pollutant for gas turbines using liquid fuels. Nitrogen oxide formation is strongly dependent on the high temperatures developed in the combustor. Carbon monoxide, VOC, hazardous air pollutants (HAP), and PM are primarily the result of incomplete combustion. Trace to low amounts of HAP and sulfur dioxide (SO₂) are emitted from gas turbines. Ash and metallic additives in the fuel may also contribute to PM in the exhaust. Oxides of sulfur (SO_x) will only appear in a significant quantity if heavy oils are fired in the turbine. Emissions of sulfur compounds, mainly SO₂, are directly related to the sulfur content of the fuel.

Available emissions data indicate that the turbine's operating load has a considerable effect on the resulting emission levels. Gas turbines are typically operated at high loads (greater than or equal to 80 percent of rated capacity) to achieve maximum thermal efficiency and peak combustor zone flame temperatures. With reduced loads (lower than 80 percent), or during periods of frequent load changes, the combustor zone flame temperatures are expected to be lower than the high load temperatures, yielding lower thermal efficiencies and more incomplete combustion ... "

3.2 NSPS Subpart GG Standards

The gas turbine is subject to the New Source Performance Standards of Subpart GG in 40 CFR 60, adopted by reference in Rule 62-204.800, F.A.C. This regulation establishes standards for emissions of NO_x and SO₂ as well as testing and monitoring requirements. In general, the emissions standards are:

- NO_x emissions ≤ 175 ppmvd (FGT Nos. 2701 and 2702) and
- SO₂ emissions are limited by firing only fuels containing ≤ 0.8 percent sulfur by weight.

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

Based on the manufacturer's estimated performance and guarantees, the gas turbine will readily comply with the NSPS requirements. The applicant has requested lower emissions standards for several pollutants that reflect efficient operation and that will ensure that the facility remains minor with respect to both the PSD and Title V air permitting programs.

3.3 Draft Emissions Standards

Based on the applicant's request, the Department will establish the following emissions standards.

EU-001 and 002: FGT Nos. 2701 and 2702, New Gas Turbine Compressor Engines

Pollutant	Standards	Equivalent Maximum Emissions ^f		Rule Basis ^g
		lb/hour	TPY	
CO ^a	50.0 ppmvd @ 15% O ₂	7.0	30.66	Synthetic minor source
NO _x ^b	25.0 ppmvd @ 15% O ₂	5.7	24.97	Synthetic minor source 40 CFR 60.332
SO ₂ ^c	10.0 grains of sulfur per 100 SCF of gas	1.7	7.45	Synthetic minor source 40 CFR 60.333
Opacity ^d	10% opacity, 6-minute average	Not Applicable		Synthetic minor source
PM ^e	Good combustion practices (Factor: 0.0066 lb/mmBTU)	0.4	1.75	Synthetic minor source
VOC ^e	Good combustion practices (Factor: 10 ppmvd @ 15% O ₂)	1.5	6.57	Synthetic minor source

- a. The CO standards are based on the average of 3 test runs as determined by EPA Method 10.
- b. The NO_x standards are based on the average of 3 test runs as determined EPA Method 20.
- c. The fuel sulfur specification is based on the maximum limit specified by Federal Energy Regulatory Commission (FERC) and effectively limits the potential SO₂ emissions. Expected fuel sulfur levels are less than 1 grain per 100 SCF of natural gas from the pipeline.
- d. The opacity standard is based on a 6-minute average, as determined by EPA Method 9.
- e. For both PM and VOC, the efficient combustion of clean fuels is indicated by compliance with opacity and CO standards. Equivalent maximum PM emissions are based on AP-42, Table 3.1-2a. Equivalent maximum VOC emissions were based on available vendor data. No testing required.
- f. Equivalent maximum emissions are based on the maximum expected emissions, permitted capacity, a compressor inlet air temperature of 59° F, and 8760 hours of operation per year. For comparison purposes, the permittee shall provide a reference table with the initial compliance test report of mass emission rates versus the compressor inlet temperatures. Each test report shall include measured mass emission rates for CO, NO_x and SO₂. Mass emission rates for SO₂ shall be calculated based on actual fuel sulfur content and fuel flow rate. For tests conducted at 59° F or greater, measured mass emission rates shall be compared to the equivalent maximum emissions above. For tests conducted below 59° F, measured mass emission rates shall be compared to the tabled mass emission rates provided by the manufacturer based on compressor inlet temperatures.
- g. The emissions standards of this permit ensure that the facility remains a minor source of air pollution with respect to both PSD and Title V air permit programs.

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

3.4 Compliance Methods

- a. *Initial Tests:* Each gas turbine shall be tested to demonstrate initial compliance with the emission standards for CO, NOx, and visible emissions. The initial tests shall be conducted within 60 days after achieving at least 90% of the maximum permitted capacity, but not later than 180 days after initial operation of the gas turbine. The initial NOx performance tests shall be conducted at approximately four evenly spaced points between the minimum normal operating load and 100% of peak load. Each of the three low-load NOx performance tests shall consist of three, 20-minute test runs. The peak load NOx performance test shall consist of three, 1-hour test runs. The CO performance tests shall be conducted concurrently with the NOx performance tests at peak load. SO₂ emissions shall be calculated based on fuel flow and vendor analysis of fuel sulfur content. [Rule 62-297.310(7)(a)1, F.A.C.; 40 CFR 60.8 and 60.335]
- b. *Annual Tests:* During each federal fiscal year (October 1 - September 30), each gas turbine shall be tested to demonstrate compliance with the visible emissions standard. In addition to the test results, each report shall include the following: a report on any non-routine maintenance conducted on each unit, a vendor analysis of the fuel sulfur content, and a general description of the activities and operation of this facility since the last test. [Rule 62-297.310(7)(a)4, F.A.C.]
- c. *Tests Prior to Renewal of Operation Permit:* During the 12-month period prior to renewal of the air operation permit, each gas turbine shall be tested to demonstrate compliance with the emission standards for CO, NOx, and visible emissions. CO and NOx emissions shall be tested concurrently at permitted capacity. SO₂ emissions shall be calculated based on fuel flow and vendor analysis of fuel sulfur content. [Rule 62-297.310(7)(a)3, F.A.C.]
- d. *Custom Fuel Monitoring:* The applicant has requested a custom fuel-monitoring schedule for fuel sulfur that meets the general requirements of EPA's most recent guidance regarding compliance with the NSPS Subpart GG provisions. The frequency of monitoring shall begin at twice per week and may eventually be reduced to twice per year based on satisfactory results.

4. PRELIMINARY DETERMINATION

The Department makes a preliminary determination that the proposed project will comply with all applicable state and federal air pollution regulations as conditioned by the draft permit. This determination is based on a technical review of the complete application, reasonable assurances provided by the applicant, and the specific conditions of the draft permit. Jeff Koerner is the project engineer responsible for reviewing the application and drafting the permit. Additional details of this analysis may be obtained by contacting the project engineer at the Department's Bureau of Air Regulation at Mail Station #5505, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400.

DRAFT PERMIT

PERMITTEE:

Florida Gas Transmission Company
P.O. Box 1188
Houston, TX 77251

Authorized Representative:

Mr. Rick Craig, V.P. of Southeastern Operations

Hillsborough Compressor Station No. 27 Air Permit No. 0571279-001-AC Facility ID No. 0571279 SIC No. 4922 Permit Expires: December 31, 2002

PROJECT AND LOCATION

This permit authorizes the construction of a new compressor station to be located approximately two miles south of U.S. Highway 301 on County Road 579 near the city of Thonotosassa in Hillsborough County, Florida. The new station will consist of two 7222 bhp gas turbine compressor engines and miscellaneous support equipment including a 585 bhp emergency generator, storage tanks, buildings and ancillary equipment. The UTM coordinates are Zone 17, 372.16 km East, and 3102.41 km North.

STATEMENT OF BASIS

This air pollution construction permit is issued under the provisions of Chapter 403 of the Florida Statutes (F.S.), and Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.) and Title 40, Part 60 of the Code of Federal Regulations. The permittee is authorized to install the proposed equipment in accordance with the conditions of this permit and as described in the application, approved drawings, plans, and other documents on file with the Department.

CONTENTS

- Section 1. General Information
- Section 2. Administrative Requirements
- Section 3. Emissions Units Specific Conditions
- Section 4. Appendices

DRAFT

Howard L. Rhodes, Director
Division of Air Resources Management

(Date)

SECTION 1. GENERAL INFORMATION (DRAFT)

FACILITY AND PROJECT DESCRIPTION

The proposed project will create a new compressor station in Hillsborough County for Florida Gas Transmission Company's existing natural gas pipeline. The new facility will consist of the following emissions units.

ID	Emission Unit Description
001	FGT Unit No. 2701: One 7200 bhp (ISO) gas turbine compressor engine firing natural gas (63 MMBtu/hour) consisting of a Cooper-Rolls Royce Model No. 501-KC7 DLE.
002	FGT Unit No. 2702: One 7200 bhp (ISO) gas turbine compressor engine firing natural gas (63 MMBtu/hour) consisting of a Cooper-Rolls Royce Model No. 501-KC7 DLE.
003	Miscellaneous Support Equipment: One 585 bhp emergency generator, storage tanks, buildings, and ancillary support equipment.

REGULATORY CLASSIFICATION

Title III: The facility is not classified as a major source of hazardous air pollutants (HAP).

Title IV: The facility has no units subject to the acid rain provisions of the Clean Air Act.

Title V: The facility is not classified as a Title V major source of air pollution.

PSD: The facility is not classified as a PSD major source of air pollution.

NSPS: The gas turbines are subject to the New Source Performance Standards of 40 CFR 60, Subpart GG.

RELEVANT DOCUMENTS

The documents listed below are not a part of this permit; however, they are specifically related to this permitting action and are on file with the Department.

- Permit application received on 01/28/02, complete.
- Draft permit package issued on (DRAFT).

SECTION 2. ADMINISTRATIVE REQUIREMENTS (DRAFT)

1. Permitting Authority: All documents related to applications for permits to construct or modify a PSD-major source shall be submitted to the Bureau of Air Regulation of the Florida Department of Environmental Protection (DEP) at 2600 Blair Stone Road (MS #5505); Tallahassee, Florida 32399-2400. All documents related to applications for permits to construct or modify minor sources or for operation permits shall be submitted to the Environmental Protection Commission of Hillsborough County at 1410 North 21st Street in Tampa, Florida 33605 and phone number 813/727-5530.
2. Compliance Authority: All documents related to compliance activities such as reports, tests, and notifications shall be submitted to the Environmental Protection Commission of Hillsborough County at 1410 North 21st Street in Tampa, Florida 33605 and phone number 813/727-5530. Copies of all such documents shall be submitted to the Department's Southwest District Office at 3804 Coconut Palm Drive in Tampa, Florida 33619-8218 and phone number 813/744-6100.
3. Appendices: The following Appendices are attached as part of this permit.
 - Appendix CF describes the format used to cite applicable rules and regulations as well as previous permitting actions.
 - Appendix GC specifies the general conditions applicable to all facilities. The general conditions are binding and enforceable pursuant to Chapter 403 of the Florida Statutes. [Rule 62-4.160, F.A.C.]
 - Appendix GG identifies the applicable NSPS requirements for gas turbines in 40 CFR 60, Subpart GG.
 - Appendix SC lists standard conditions applicable to air pollution sources compiled from Chapters 62-4, 62-210, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.).
4. Applicable Regulations, Forms and Application Procedures: Unless otherwise indicated in this permit, the construction and operation of the subject emissions unit shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of: Chapter 403 of the Florida Statutes (F.S.); Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.); and Title 40, Part 60 of the Code of Federal Regulations (CFR), adopted by reference in Rule 62-204.800, F.A.C. The terms used in this permit have specific meanings as defined in the applicable chapters of the Florida Administrative Code. The permittee shall use the applicable forms listed in Rule 62-210.900, F.A.C. and follow the application procedures in Chapter 62-4, F.A.C. Issuance of this permit does not relieve the permittee from compliance with any applicable federal, state, or local permitting or regulations. [Rules 62-204.800, 62-210.300 and 62-210.900, F.A.C.]
5. New or Additional Conditions: For good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time. [Rule 62-4.080, F.A.C.]
6. Modifications: No emissions unit or facility subject to this permit shall be constructed or modified without obtaining an air construction permit from the Department. Such permit shall be obtained prior to beginning construction or modification. [Rules 62-210.300(1) and 62-212.300(1)(a), F.A.C.]
7. Operation Permit: This permit authorizes construction of the permitted emissions units and initial operation to determine compliance with Department rules. The permittee shall apply for a minor source air operation permit at least sixty (60) days before the expiration of this construction permit, but no later than ninety (90) days after commencing operation. To apply for an operation permit, the applicant shall submit the appropriate application form, any required compliance test results, and such additional information as the Department may by law require. The application shall be submitted to the Environmental Protection Commission of Hillsborough County at the address listed above. [Rules 62-4.030, 62-4.050, and 62-4.220, F.A.C.]

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS (DRAFT)

A. FGT UNIT NOS. 2701 AND 2702, GAS TURBINE COMPRESSOR ENGINES

This section of the permit addresses the following modified emissions unit.

Emissions Unit Nos. 001 and 002 (FGT Nos. 2701 and 2702): Gas Turbine Compressor Engines

Description: Each new 7200 bhp (ISO) gas turbine compressor engine consists of a Cooper-Rolls Royce Model No. 501-KC7 DLE with lean premix combustor design.

Fuel: Each gas turbine fires pipeline-quality natural gas (SCC No 2-02-002-01) at a maximum firing rate of approximately 60,500 cubic feet per hour based on a heat content of 1040 BTU per SCF of gas.

Capacity: At 63 mmBTU per hour of heat input, each gas turbine produces approximately 7222 bhp (ISO). The gas turbines are intended to operate at or near capacity.

Controls: The lean premix combustor design minimizes NOx emissions. The efficient combustion of natural gas at high temperatures minimizes emissions of CO, PM/PM10, SO2, and VOC.

Stack Parameters: When operating at capacity, exhaust gases exit a rectangular stack (7.33 feet by 5.50 feet) that is 61.2 feet tall at 960° F with a flow rate of approximately 98,200 acfm.

APPLICABLE STANDARDS AND REGULATIONS

1. NSPS Requirements: Each gas turbine shall comply with the New Source Performance Standards (NSPS) of Subpart GG in 40 CFR 60. The applicable NSPS requirements are provided in Appendix GG of this permit. The Department believes that the conditions in this section are at least as stringent, or more stringent than, the NSPS requirements of Subpart GG. [Rule 62-4.070(3), F.A.C.; 40 CFR 60, Subpart GG]

EQUIPMENT

2. New Gas Turbines (FGT Nos. 2701 and 2702): The permittee is authorized to install two nominal 7200 bhp (ISO) gas turbine compressor engines, each consisting of a Cooper-Rolls Royce Model No. 501-KC7 DLE. The permittee shall tune, operate and maintain each gas turbine's lean premix combustion system to reduce emissions of nitrogen oxides below the permitted limits. Ancillary equipment for each gas turbine includes the automated gas turbine control system, an inlet air filtration system, and a rectangular stack (7.33 feet by 7.50 feet) that is 61.2 feet tall. [Applicant Request; Design]

PERFORMANCE RESTRICTIONS

3. Permitted Capacities: The maximum heat input rate to each gas turbine shall not exceed 63 MMBtu per hour while producing approximately 7222 bhp (ISO) based on a compressor inlet air temperature of 59° F, 100% load, and a higher heating value (HHV) of 1040 BTU per SCF for natural gas. Heat input rates will vary depending upon gas turbine characteristics, load, and ambient conditions. For each gas turbine, the permittee shall provide manufacturer's performance curves (or equations) that correct for site conditions to the Permitting and Compliance Authorities within 45 days of completing the initial testing. Performance data shall be adjusted for the appropriate site conditions in accordance with the performance curves and/or equations on file with the Department. [Rule 62-210.200(PTE), F.A.C.]
4. Authorized Fuel: Each gas turbine shall fire only natural gas with a maximum of 10 grains of sulfur per 100 standard cubic feet of natural gas. [Applicant Request; Rule 62-210.200(PTE), F.A.C.]
5. Restricted Operation: The hours of operation for each gas turbine are not limited (8760 hours per year). Except for startup and shutdown, operation below 50% base load is prohibited. [Rules 62-4.070(3) and 62-210.200(PTE), F.A.C.]

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS (DRAFT)

A. FGT UNIT NOS. 2701 AND 2702, GAS TURBINE COMPRESSOR ENGINES

EMISSIONS STANDARDS

6. Emissions Standards: Emissions from each gas turbine shall not exceed the following limits for carbon monoxide (CO), nitrogen oxides (NO_x), opacity, particulate matter (PM), sulfur dioxide (SO₂), and volatile organic compounds (VOC).

Pollutant	Standards	Equivalent Maximum Emissions ^f		Rule Basis ^g
		lb/hour	TPY	
CO ^a	50.0 ppmvd @ 15% O ₂	7.0	30.66	Synthetic minor source
NO _x ^b	25.0 ppmvd @ 15% O ₂	5.7	24.97	Synthetic minor source 40 CFR 60.332
SO ₂ ^c	10.0 grains of sulfur per 100 SCF of gas	1.7	7.45	Synthetic minor source 40 CFR 60.333
Opacity ^d	10% opacity, 6-minute average	Not Applicable		Synthetic minor source
PM ^e	Good combustion practices (Factor: 0.0066 lb/mmBTU)	0.4	1.75	Synthetic minor source
VOC ^e	Good combustion practices (Factor: 10 ppmvd @ 15% O ₂)	1.5	6.57	Synthetic minor source

- a. The CO standards are based on the average of three test runs as determined by EPA Method 10.
- b. The NO_x standards are based on the average of three test runs as determined EPA Method 20.
- c. The fuel sulfur specification is based on the maximum limit specified by Federal Energy Regulatory Commission (FERC) and effectively limits the potential SO₂ emissions. Expected fuel sulfur levels are less than 1 grain per 100 SCF of natural gas from the pipeline.
- d. The opacity standard is based on a 6-minute average, as determined by EPA Method 9.
- e. For both PM and VOC, the efficient combustion of clean fuels is indicated by compliance with opacity and CO standards. Equivalent maximum PM emissions are based on AP-42, Table 3.1-2a. Equivalent maximum VOC emissions were based on available vendor data. No testing required.
- f. Equivalent maximum emissions are based on the maximum expected emissions, permitted capacity, a compressor inlet air temperature of 59° F, and 8760 hours of operation per year. For comparison purposes, the permittee shall provide a reference table with the initial compliance test report of mass emission rates versus the compressor inlet temperatures. Each test report shall include measured mass emission rates for CO, NO_x and SO₂. Mass emission rates for SO₂ shall be calculated based on actual fuel sulfur content and fuel flow rate. For tests conducted at 59° F or greater, measured mass emission rates shall be compared to the equivalent maximum emissions above. For tests conducted below 59° F, measured mass emission rates shall be compared to the tabled mass emission rates provided by the manufacturer based on compressor inlet temperatures.
- g. The emissions standards of this permit ensure that the facility remains a minor source of air pollution with respect to both PSD and Title V air permit programs.

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS (DRAFT)

A. FGT UNIT NOS. 2701 AND 2702, GAS TURBINE COMPRESSOR ENGINES

EMISSIONS PERFORMANCE TESTING

7. Test Methods: Required tests shall be performed in accordance with the following reference methods.

Method	Description of Method and Comments
1-4	Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content
9	Visual Determination of the Opacity of Emissions from Stationary Sources
10	Determination of Carbon Monoxide Emissions from Stationary Sources {Note: The method shall be based on a continuous sampling train.}
19	Determination of Sulfur Dioxide Removal Efficiency and Particulate Matter, Sulfur Dioxide, and Nitrogen Oxides Emission Rates (Optional F-factor method may be used to determine flow rate and gas analysis to calculate mass emissions in lieu of Methods 1-4.)
20	Determination of Nitrogen Oxides, Sulfur Dioxide and Diluent Emissions from Gas Turbines

Tests shall also be conducted in accordance with the requirements specified in Section 4, Appendix SC of this permit. The above methods are described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used for compliance testing unless prior written approval is received from the administrator of the Department's Emissions Monitoring Section in accordance with an alternate sampling procedure pursuant to 62-297.620, F.A.C. [Rules 62-204.800 and 62-297.100, F.A.C.; 40 CFR 60, Appendix A]

8. Initial Tests: Each gas turbine shall be tested to demonstrate initial compliance with the emission standards for CO, NOx, and visible emissions. The initial tests shall be conducted within 60 days after achieving at least 90% of the maximum permitted capacity, but not later than 180 days after initial operation of the gas turbine. The initial NOx performance tests shall be conducted at approximately four evenly spaced points between the minimum normal operating load and 100% of peak load. Each of the three low-load NOx performance tests shall consist of three, 20-minute test runs. The peak load NOx performance test shall consist of three, 1-hour test runs. The CO performance tests shall be conducted concurrently with the NOx performance tests at peak load. SO2 emissions shall be calculated based on fuel flow and vendor analysis of fuel sulfur content. [Rule 62-297.310(7)(a)1, F.A.C.; 40 CFR 60.8 and 60.335]
9. Annual Tests: During each federal fiscal year (October 1 - September 30), each gas turbine shall be tested to demonstrate compliance with the visible emissions standard. In addition to the test results, each report shall include the following: a report on any non-routine maintenance conducted on each unit, a vendor analysis of the fuel sulfur content, and a general description of the activities and operation of this facility since the last test. [Rule 62-297.310(7)(a)4, F.A.C.]
10. Tests Prior to Renewal of Operation Permit: During the 12-month period prior to renewal of the air operation permit, each gas turbine shall be tested to demonstrate compliance with the emission standards for CO, NOx, and visible emissions. CO and NOx emissions shall be tested concurrently at permitted capacity. SO2 emissions shall be calculated based on fuel flow and vendor analysis of fuel sulfur content. [Rule 62-297.310(7)(a)3, F.A.C.]
11. Test Notification: The permittee shall notify the Compliance Authority in writing at least 30 days prior to any initial NSPS performance tests and at least 15 days prior to any other required tests. [Rule 62-297.310(7)(a)9, F.A.C.; 40 CFR 60.7 and, 60.8]

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS (DRAFT)

A. FGT UNIT NOS. 2701 AND 2702, GAS TURBINE COMPRESSOR ENGINES

RECORDS AND REPORTS

12. Test Reports: The permittee shall prepare and submit reports for all required tests in accordance with the requirements specified in Section 4, Appendix SC of this permit. In addition, NO_x emissions shall be corrected to ISO ambient atmospheric conditions and compared to the NSPS Subpart GG standard identified in Appendix GG of this permit for each required test. For each run, the test report shall also indicate the natural gas firing rate (cubic feet per hour), heat input rate (MMBtu per hour), the power output (bhp), percent base load, and the inlet compressor temperature. [Rule 62-297.310(8), F.A.C.; 40 CFR 60.334]
13. Custom Fuel Monitoring Schedule: In lieu of the NSPS fuel monitoring requirements of 40 CFR 60.334 of Subpart GG, the Department approves the custom fuel-monitoring schedule specified in Appendix FM of this permit. [Rule 62-4.070(3), F.A.C.; 40 CFR 60.334]
14. Operational Data: Using the automated gas turbine control system, the permittee shall monitor and record heat input (MMBtu), power output (bhp), and hours of operation for each gas turbine. Within the 10 days of a request by the Department or the Compliance Authority, the permittee shall be able to summarize the following information: average heat input (MMBtu per hour); average power output (bhp); and hours of gas turbine operation. This information shall also be used for submittal of the required Annual Operating Report. [Rule 62-4.070(3), F.A.C.]

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS (DRAFT)

B. MISCELLANEOUS SUPPORT EQUIPMENT

This permit recognizes the following additional activities at this facility.

Emissions Unit No. 003: Miscellaneous Support Equipment	
004	Miscellaneous support equipment including: <ul style="list-style-type: none">• One Waukesha Model No. HG24GL reciprocating internal combustion engine and emergency generator (585 bhp) fired exclusively with natural gas and identified as FGT No. GEN01;• One 4200 gallon vertical fixed roof pipeline condensate storage tank;• One 4200 gallon vertical oily water storage tank; and• Miscellaneous buildings and pipeline equipment such as pumps, valves, flanges, etc.

Note: The emergency generator is expected to operate much less than 500 hours per year.

SECTION 4. APPENDICES

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SECTION 4. APPENDIX CF
CITATION FORMAT

The following examples illustrate the format used in the permit to identify applicable permitting actions and regulations.

REFERENCES TO PREVIOUS PERMITTING ACTIONS

Old Permit Numbers

Example: Permit No. AC50-123456 or Air Permit No. AO50-123456

Where: “AC” identifies the permit as an Air Construction Permit
“AO” identifies the permit as an Air Operation Permit
“123456” identifies the specific permit project number

New Permit Numbers

Example: Permit Nos. 099-2222-001-AC, 099-2222-001-AF, 099-2222-001-AO, or 099-2222-001-AV

Where: “099” represents the specific county ID number in which the project is located
“2222” represents the specific facility ID number
“001” identifies the specific permit project
“AC” identifies the permit as an air construction permit
“AF” identifies the permit as a minor federally enforceable state operation permit
“AO” identifies the permit as a minor source air operation permit
“AV” identifies the permit as a Title V Major Source Air Operation Permit

PSD Permit Numbers

Example: Permit No. PSD-FL-317

Where: “PSD” means issued pursuant to the Prevention of Significant Deterioration of Air Quality
“FL” means that the permit was issued by the State of Florida
“317” identifies the specific permit project

RULE CITATION FORMATS

Florida Administrative Code (F.A.C.)

Example: [Rule 62-213.205, F.A.C.]

Means: Title 62, Chapter 213, Rule 205 of the Florida Administrative Code

Code of Federal Regulations (CFR)

Example: [40 CFR 60.7]

Means: Title 40, Part 60, Section 7

SECTION 4. APPENDIX GC
CUSTOM FUEL MONITORING PLAN FOR NSPS GAS TURBINES

Custom Fuel Monitoring Schedule: The Department approves the following custom fuel-monitoring schedule in lieu of the NSPS fuel monitoring requirements in 40 CFR 60.334 of Subpart GG for the gas turbines affected by this project.

1. Because natural gas is the exclusive fuel for the gas turbine and contains negligible amounts of nitrogen, no monitoring of the fuel nitrogen content is required.
2. Fuel sulfur monitoring shall be performed in accordance with the following requirements:
 - a. The natural gas shall be sampled and analyzed for the sulfur content as determined by ASTM methods D4084-82, D3246-81 or more recent versions.
 - b. After first fire in the gas turbine, fuel sulfur monitoring shall be conducted at least twice each month. If this monitoring indicates little variability and compliance with the fuel sulfur limit of this permit for a period of six months, monitoring shall be reduced to once each calendar quarter. If this monitoring indicates little variability and compliance with the fuel sulfur limit of this permit for six calendar quarters, monitoring shall be reduced to twice each year (once each during the first and third calendar quarters).
 - c. The permittee shall provide written notification to the Compliance Authority prior to reducing the frequency of monitoring in accordance with the above custom schedule. The notification shall include the results of the previous fuel sulfur analyses, the current frequency of monitoring, and the future frequency of monitoring.
3. This custom fuel-monitoring plan shall be reevaluated if there is a change in the fuel supply, a substantial change in the fuel quality, or any required monitoring indicates failure to comply with the fuel sulfur limit of this permit. For such cases, fuel sulfur monitoring shall resume on a weekly basis while the Department reevaluates the monitoring schedule.

[Rule 62-4.070(3); 40 CFR 60.334]

SECTION 4. APPENDIX GC
GENERAL CONDITIONS

The permittee shall comply with the following general conditions from Rule 62-4.160, F.A.C.

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey and vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.
4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.
7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:
 - a. Have access to and copy and records that must be kept under the conditions of the permit;
 - b. Inspect the facility, equipment, practices, or operations regulated or required under this permit, and,
 - c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:
 - a. A description of and cause of non-compliance; and
 - b. The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, Florida

SECTION 4. APPENDIX GC

GENERAL CONDITIONS

Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.
11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.
12. This permit or a copy thereof shall be kept at the work site of the permitted activity.
13. This permit also constitutes:
 - a. Determination of Best Available Control Technology (NA);
 - b. Determination of Prevention of Significant Deterioration (NA); and
 - c. Compliance with New Source Performance Standards (X).
14. The permittee shall comply with the following:
 - a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
 - b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application or this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
 - c. Records of monitoring information shall include:
 - 1) The date, exact place, and time of sampling or measurements;
 - 2) The person responsible for performing the sampling or measurements;
 - 3) The dates analyses were performed;
 - 4) The person responsible for performing the analyses;
 - 5) The analytical techniques or methods used; and
 - 6) The results of such analyses.
15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

SECTION 4. APPENDIX GG

NSPS SUBPART GG REQUIREMENTS FOR GAS TURBINES

The following emissions unit is subject to the applicable requirements of Subpart A (General Provisions) and Subpart GG (Stationary Gas Turbines) established as New Source Performance Standards in 40 CFR 60 and adopted by reference in Rule 62-204.800(7)(b), F.A.C.

001	FGT Unit No. 2701: One 7200 bhp (ISO) gas turbine compressor engine firing natural gas (63 MMBtu/hour); Cooper-Rolls Royce Model No. 501-KC7 DLE
002	FGT Unit No. 2702: One 7200 bhp (ISO) gas turbine compressor engine firing natural gas (63 MMBtu/hour); Cooper-Rolls Royce Model No. 501-KC7 DLE

NSPS GENERAL PROVISIONS

In addition to the specific condition of the permit and NSPS Subpart GG, the emissions units are subject to the applicable General Provisions of the New Source Performance Standards including 40 CFR 60.7 (Notification and Record Keeping), 40 CFR 60.8 (Performance Tests), 40 CFR 60.11 (Compliance with Standards and Maintenance Requirements), 40 CFR 60.12 (Circumvention), 40 CFR 60.13 (Monitoring Requirements), and 40 CFR 60.19 (General Notification and Reporting Requirements). The General Provisions are not included in this permit, but can be obtained from the Department upon request.

40 CFR 60, SUBPART GG

STANDARDS OF PERFORMANCE FOR STATIONARY GAS TURBINES

{Note: Each gas turbine shall comply with all applicable requirements of 40 CFR 60, Subpart GG adopted by reference in Rule 62-204.800(7)(b), F.A.C. Inapplicable provisions have been deleted in the following conditions, but the numbering of the original rules has been preserved for ease of reference. The term "Administrator" when used in 40 CFR 60 shall mean the Department's Secretary or the Secretary's designee. Department notes and requirements related to the Subpart GG requirements are shown in bold immediately following the section to which they refer. The rule basis for the Department requirements specified below is Rule 62-4.070(3), F.A.C.}

Section 60.330 Applicability and designation of affected facility.

- (a) The provisions of this subpart are applicable to the following affected facilities: All stationary gas turbines with a heat input at peak load equal to or greater than 10.7 gigajoules per hour (10 million Btu/hour), based on the lower heating value of the fuel fired.

Section 60.331 Definitions.

As used in this subpart, all terms not defined herein shall have the meaning given them in the Act and in subpart A of this part.

- (g) ISO standard day conditions means 288 degrees Kelvin, 60 percent relative humidity and 101.3 kilopascals pressure.
- (i) Peak load means 100 percent of the manufacturer's design capacity of the gas turbine at ISO standard day conditions.
- (j) Base load means the load level at which a gas turbine is normally operated.

Section 60.332 Standard for nitrogen oxides.

- (a) On and after the date of the performance test required by Section 60.8 is completed, every owner or operator subject to the provisions of this subpart as specified in paragraphs (c) of this section shall comply with:
 - (2) No owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any stationary gas turbine, any gases which contain nitrogen oxides in excess of:

$$STD = 0.0150 \frac{(14.4)}{Y} + F$$

where:

STD = allowable NOx emissions (percent by volume at 15 percent oxygen and on a dry basis).

SECTION 4. APPENDIX GG
NSPS SUBPART GG REQUIREMENTS FOR GAS TURBINES

- Y = manufacturer's rated heat rate at manufacturer's rated load (kilojoules per watt hour) or, actual measured heat rate based on lower heating value of fuel as measured at actual peak load for the facility. The value of Y shall not exceed 14.4 kilojoules per watt-hour.
- F = NOx emission allowance for fuel-bound nitrogen as defined in paragraph (a)(3) of this section.

(3) F shall be defined according to the nitrogen content of the fuel as follows:

Fuel-bound nitrogen (percent by weight)	F (NOx percent by volume)
$N \leq 0.015$	0
$0.015 < N \leq 0.1$	$0.04(N)$
$0.1 < N \leq 0.25$	$0.004 + 0.0067(N - 0.1)$
$N > 0.25$	0.005

where: N=the nitrogen content of the fuel (percent by weight).

Department requirement: When firing natural gas, the "F" value shall be assumed to be 0.

{Note: The "Y" value when firing natural gas as provided by the manufacturer is approximately "12.35". The equivalent emission standard is 175 ppmvd at 15% oxygen. The emissions standards in Section 3 of this permit are much more stringent than this requirement.}

- (c) Stationary gas turbines with a heat input at peak load equal to or greater than 10.7 gigajoules per hour (10 million Btu/hour) but less than or equal to 107.2 gigajoules per hour (100 million Btu/hour) based on the lower heating value of the fuel fired, shall comply with the provisions of paragraph (a)(2) of this section.

Section 60.333 Standard for sulfur dioxide.

On and after the date on which the performance test required to be conducted by Section 60.8 is completed, every owner or operator subject to the provision of this subpart shall comply with:

- (b) No owner or operator subject to the provisions of this subpart shall burn in any stationary gas turbine any fuel which contains sulfur in excess of 0.8 percent by weight.

Section 60.334 Monitoring of operations.

- (b) The owner or operator of any stationary gas turbine subject to the provisions of this subpart shall monitor sulfur content and nitrogen content of the fuel being fired in the turbine. The frequency of determination of these values shall be as follows:

- (2) If the turbine is supplied its fuel without intermediate bulk storage the values shall be determined and recorded daily. Owners, operators or fuel vendors may develop custom schedules for determination of the values based on the design and operation of the affected facility and the characteristics of the fuel supply. These custom schedules shall be substantiated with data and must be approved by the Administrator before they can be used to comply with paragraph (b) of this section.

Department requirement: The requirement to monitor the nitrogen content of pipeline quality natural gas fired is waived because natural gas is the exclusive fuel and contains negligible amounts of nitrogen. For purposes of complying with the sulfur content monitoring requirements of this rule, the permittee shall comply with the custom fuel monitoring schedule specified in the Section 3 of the permit.

{Note: This is consistent with guidance from EPA Region 4 on custom fuel monitoring.}

- (c) For the purpose of reports required under Section 60.7(c), periods of excess emissions that shall be reported are defined as follows:
- (1) Nitrogen oxides. Any one-hour period during which the average water-to-fuel ratio, as measured by the continuous monitoring system, falls below the water-to-fuel ratio determined to demonstrate compliance with Section 60.332 by the performance test required in Section 60.8 or any period during which the fuel-bound nitrogen of the fuel is greater than the maximum nitrogen content allowed by the fuel-bound nitrogen allowance used during the performance test required in Section 60.8. Each report shall include the average water-to-fuel

SECTION 4. APPENDIX GG
NSPS SUBPART GG REQUIREMENTS FOR GAS TURBINES

ratio, average fuel consumption, ambient conditions, gas turbine load, and nitrogen content of the fuel during the period of excess emissions, and the graphs or figures developed under Section 60.335(a).

{Note: The excess NO_x emissions reporting requirements do not apply. The gas turbine uses dry low-NO_x combustion technology and not wet injection to control NO_x emissions. Also, NO_x emissions due to fuel bound nitrogen are considered negligible because natural gas is the exclusive fuel and contains little nitrogen.}

- (2) Sulfur dioxide. Any daily period during which the sulfur content of the fuel being fired in the gas turbine exceeds 0.8 percent.

Department requirement: In accordance with the custom fuel monitoring schedule, any period between two consecutive fuel sulfur analyses shall be reported as excess emissions if the results of the second analysis indicates failure to comply with the fuel sulfur limit of the permit.

Section 60.335 Test methods and procedures.

- (a) To compute the nitrogen oxides emissions, the owner or operator shall use analytical methods and procedures that are accurate to within 5 percent and are approved by the Administrator to determine the nitrogen content of the fuel being fired.
- (b) In conducting the performance tests required in Section 60.8, the owner or operator shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided for in Section 60.8(b). Acceptable alternative methods and procedures are given in paragraph (f) of this section.
- (c) The owner or operator shall determine compliance with the nitrogen oxides and sulfur dioxide standards in Sections 60.332 and 60.333(a) as follows:

- (1) The nitrogen oxides emission rate (NO_x) shall be computed for each run using the following equation:

$$\text{NO}_x = (\text{NO}_{x0}) (\text{Pr}/\text{Po})^{0.5} e^{19(\text{Ho} - 0.00633)} (288^\circ\text{K}/\text{Ta})^{1.53}$$

where:

NO_x = emission rate of NO_x at 15 percent O₂ and ISO standard ambient conditions, volume percent.

NO_{x0} = observed NO_x concentration, ppm by volume.

Pr = reference combustor inlet absolute pressure at 101.3 kilopascals ambient pressure, mm Hg.

Po = observed combustor inlet absolute pressure at test, mm Hg.

Ho = observed humidity of ambient air, g H₂O/g air.

e = transcendental constant, 2.718.

Ta = ambient temperature, °K.

Department requirement: The permittee is required to correct NO_x emissions to ISO ambient atmospheric conditions for each required emissions performance test and compare to the NO_x standard specified in 40 CFR 60.332.

- (2) The monitoring device of Section 60.334(a) shall be used to determine the fuel consumption and the water-to-fuel ratio necessary to comply with Section 60.332 at 30, 50, 75, and 100 percent of peak load or at four points in the normal operating range of the gas turbine, including the minimum point in the range and peak load. All loads shall be corrected to ISO conditions using the appropriate equations supplied by the manufacturer.

Department requirement: The initial NO_x performance tests shall be conducted at approximately four evenly spaced points between the minimum normal operating load and 100% of peak load.

{Note: The dry low-NO_x controls are only effective above a minimum load, which will be identified during initial testing.}

SECTION 4. APPENDIX GG
NSPS SUBPART GG REQUIREMENTS FOR GAS TURBINES

(3) Method 20 shall be used to determine the nitrogen oxides, sulfur dioxide, and oxygen concentrations. The span values shall be 300 ppm of nitrogen oxide and 21 percent oxygen. The NOx emissions shall be determined at each of the load conditions specified in paragraph (c)(2) of this section.

Department requirement: The span value shall be no greater than 75 ppm of nitrogen oxides due to the low NOx emission levels of the gas turbine.

(d) The owner or operator shall determine compliance with the sulfur content standard in Section 60.333(b) as follows: ASTM D 2880-71 shall be used to determine the sulfur content of liquid fuels and ASTM D 1072-80, D 3031-81, D 4084-82, or D 3246-81 shall be used for the sulfur content of gaseous fuels (incorporated by reference--see Section 60.17). The applicable ranges of some ASTM methods mentioned above are not adequate to measure the levels of sulfur in some fuel gases. Dilution of samples before analysis (with verification of the dilution ratio) may be used, subject to the approval of the Administrator.

Department requirement: The natural gas shall be sampled and analyzed for the sulfur content as determined by ASTM methods D4084-82, D3246-81 or more recent versions.

(e) To meet the requirements of Section 60.334(b), the owner or operator shall use the methods specified in paragraphs (a) and (d) of this section to determine the nitrogen and sulfur contents of the fuel being burned. The analysis may be performed by the owner or operator, a service contractor retained by the owner or operator, the fuel vendor, or any other qualified agency.

{Note: The fuel analysis requirements of the permit meet or exceed the requirements of this rule and will ensure compliance with this rule.}

SECTION 4. APPENDIX SC
STANDARD CONDITIONS

{Permitting Note: The following conditions apply to all emissions units and activities at this facility.}

EMISSIONS AND CONTROLS

1. Plant Operation - Problems: If temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by fire, wind or other cause, the permittee shall notify each Compliance Authority as soon as possible, but at least within one working day, excluding weekends and holidays. The notification shall include: pertinent information as to the cause of the problem; steps being taken to correct the problem and prevent future recurrence; and, where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with the conditions of this permit or the regulations. [Rule 62-4.130, F.A.C.]
2. Circumvention: The permittee shall not circumvent the air pollution control equipment or allow the emission of air pollutants without this equipment operating properly. [Rule 62-210.650, F.A.C.]
3. Excess Emissions Allowed: Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.]
4. Excess Emissions Prohibited: Excess emissions caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure that may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]
5. Excess Emissions - Notification: In case of excess emissions resulting from malfunctions, the permittee shall notify the Department or the appropriate Local Program in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department. [Rule 62-210.700(6), F.A.C.]
6. VOC or OS Emissions: No person shall store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds or organic solvents without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department. [Rule 62-296.320(1), F.A.C.]
7. Objectionable Odor Prohibited: No person shall cause, suffer, allow or permit the discharge of air pollutants, which cause or contribute to an objectionable odor. An "objectionable odor" means any odor present in the outdoor atmosphere which by itself or in combination with other odors, is or may be harmful or injurious to human health or welfare, which unreasonably interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance. [Rules 62-296.320(2) and 62-210.200(203), F.A.C.]
8. General Visible Emissions: No person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity equal to or greater than 20 percent opacity. [Rule 62-296.320(4)(b)1, F.A.C.]
9. Unconfined Particulate Emissions: During the construction period, unconfined particulate matter emissions shall be minimized by dust suppressing techniques such as covering and/or application of water or chemicals to the affected areas, as necessary. [Rule 62-296.320(4)(c), F.A.C.]

TESTING REQUIREMENTS

10. Required Number of Test Runs: For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured; provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five-day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five-day period allowed for the test, the Secretary or his or her designee may accept the results of two complete runs as proof of compliance, provided that the arithmetic mean of the two complete runs is at least 20% below the allowable emission limiting standard. [Rule 62-297.310(1), F.A.C.]

SECTION 4. APPENDIX SC
STANDARD CONDITIONS

11. Operating Rate During Testing: Testing of emissions shall be conducted with the emissions unit operating at permitted capacity. Permitted capacity is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impractical to test at permitted capacity, an emissions unit may be tested at less than the maximum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test rate until a new test is conducted. Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. [Rule 62-297.310(2), F.A.C.]
12. Calculation of Emission Rate: For each emissions performance test, the indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the three separate test runs unless otherwise specified in a particular test method or applicable rule. [Rule 62-297.310(3), F.A.C.]
13. Test Procedures: Tests shall be conducted in accordance with all applicable requirements of Chapter 62-297, F.A.C.
- a. Required Sampling Time. Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes. The minimum observation period for a visible emissions compliance test shall be thirty (30) minutes. The observation period shall include the period during which the highest opacity can reasonably be expected to occur.
 - b. Minimum Sample Volume. Unless otherwise specified in the applicable rule or test method, the minimum sample volume per run shall be 25 dry standard cubic feet.
 - c. Calibration of Sampling Equipment. Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1, F.A.C.
- [Rule 62-297.310(4), F.A.C.]
14. Determination of Process Variables:
- a. Required Equipment. The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.
 - b. Accuracy of Equipment. Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.
- [Rule 62-297.310(5), F.A.C.]
15. Sampling Facilities: The permittee shall install permanent stack sampling ports and provide sampling facilities that meet the requirements of Rule 62-297.310(6), F.A.C.
16. Test Notification: The owner or operator shall notify the Department, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator. [Rule 62-297.310(7)(a)9, F.A.C.]
17. Special Compliance Tests: When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it shall require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department. [Rule 62-297.310(7)(b), F.A.C.]
18. Test Reports: The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department on the results of each such test. The required test report shall be filed with the Department as

SECTION 4. APPENDIX SC
STANDARD CONDITIONS

soon as practical but no later than 45 days after the last sampling run of each test is completed. The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the following information:

1. The type, location, and designation of the emissions unit tested.
2. The facility at which the emissions unit is located.
3. The owner or operator of the emissions unit.
4. The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.
5. The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.
6. The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.
7. A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.
8. The date, starting time and duration of each sampling run.
9. The test procedures used, including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.
10. The number of points sampled and configuration and location of the sampling plane.
11. For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.
12. The type, manufacturer and configuration of the sampling equipment used.
13. Data related to the required calibration of the test equipment.
14. Data on the identification, processing and weights of all filters used.
15. Data on the types and amounts of any chemical solutions used.
16. Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.
17. The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.
18. All measured and calculated data required to be determined by each applicable test procedure for each run.
19. The detailed calculations for one run that relate the collected data to the calculated emission rate.
20. The applicable emission standard, and the resulting maximum allowable emission rate for the emissions unit, plus the test result in the same form and unit of measure.
21. A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department or its agent, the person who conducts the test shall provide the certification with respect to the test procedures used. The owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge.

RECORDS AND REPORTS

19. Records Retention: All measurements, records, and other data required by this permit shall be documented in a permanent, legible format and retained for at least five (5) years following the date on which such measurements, records, or data are recorded. Records shall be made available to the Department upon request. [Rules 62-4.160(14) and 62-213.440(1)(b)2, F.A.C.]
20. Annual Operating Report: The permittee shall submit an annual report that summarizes the actual operating rates and emissions from this facility. Annual operating reports shall be submitted to the Compliance Authority by March 1st of each year. [Rule 62-210.370(2), F.A.C.]

Memorandum

Florida Department of Environmental Protection

TO: Clair Fancy, Chief - Bureau of Air Regulation *CHF for eHT*
THROUGH: Al Linero, Administrator - New Source Review Section *AL*
FROM: Jeff Koerner, New Source Review Section *JK*
DATE: March 4, 2002
SUBJECT: Draft Air Construction Permit No. 0571279-001-AC
Florida Gas Transmission Company
Hillsborough Compressor Station No. 27
Phase V Modification Project

Attached for your review are the following items:

- Intent to Issue Permit and Public Notice Package;
- Technical Evaluation and Preliminary Determination;
- Draft Permit; and
- PE Certification

The draft permit authorizes the construction of a new compressor station to be located approximately two miles south of U.S. Highway 301 on County Road 579 near the city of Thonotosassa in Hillsborough County, Florida. The new station will consist of two 7222 bhp gas turbine compressor engines and miscellaneous support equipment including a 585 bhp emergency generator, storage tanks, buildings and ancillary equipment. The Technical Evaluation and Preliminary Determination provides a detailed description of the project, rule applicability, and emission standards. The P.E. certification briefly summarizes proposed project. The facility will be minor with respect to both the PSD and Title V air permitting programs. FGT requested processing of all of the Phase V projects in Tallahassee for consistency.

Day #74 is April 11, 2002. I recommend your approval of the attached Draft Permit for this project.

CHF/AAL/jfk

Attachments

Florida Department of Environmental Protection
Division of Air Resources Management
Bureau of Air Regulation
New Source Review Section
2600 Blair Stone Road, MS #5505
Tallahassee, Florida, 32399-2400

P.E. CERTIFICATION STATEMENT

PERMITTEE

Florida Gas Transmission Company
P.O. Box 1188
Houston, TX 77251

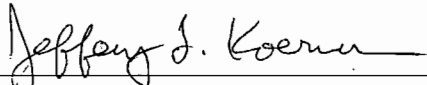
Draft Air Permit No. 0571279-001-AC
Hillsborough Compressor Station No. 27
Phase V Modification Project

PROJECT DESCRIPTION

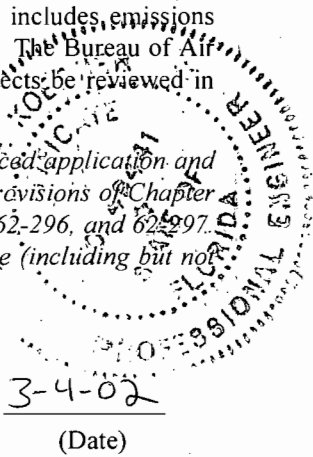
This draft permit authorizes the construction of a new compressor station to be located approximately two miles south of U.S. Highway 301 on County Road 579 near the city of Thonotosassa in Hillsborough County, Florida. The new station will consist of two 7222 bhp gas turbine compressor engines and miscellaneous support equipment including a 585 bhp emergency generator, storage tanks, buildings and ancillary equipment. The new compressor station will have the potential to emit the following pollutants: 61 tons of carbon monoxide per year; 51 tons of nitrogen oxides per year; 4 tons of particulate matter per year; 15 tons of sulfur dioxide per year; and 14 tons of volatile organic compounds per year. Therefore, the facility is classified as a minor source of air pollution with respect to Chapters 62-212 (PSD Major Source Preconstruction Review) and 62-213 (Title V Major Source Air Operation Permit). The facility is not a major source of hazardous air pollutants.

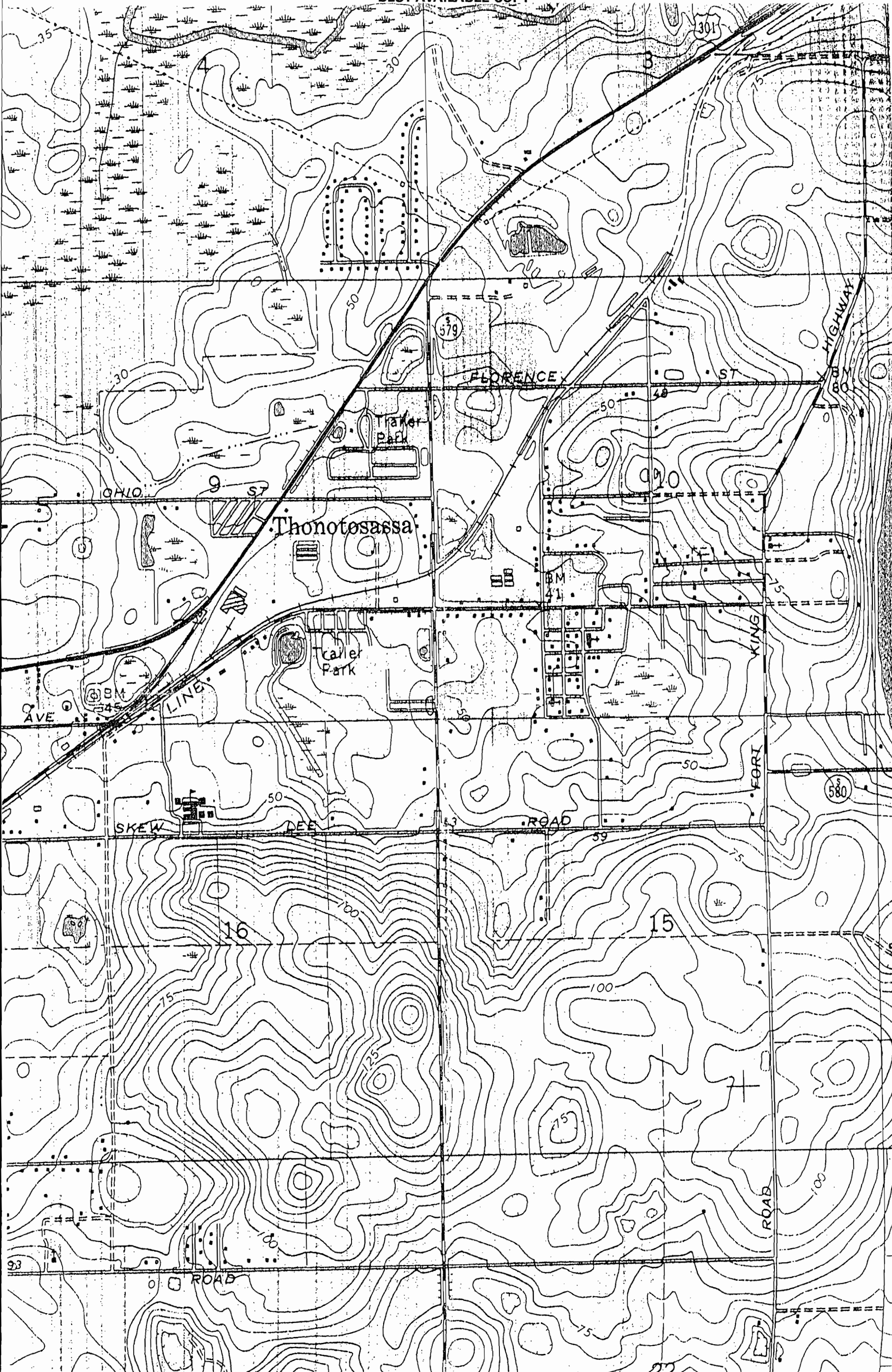
The new gas turbines are subject to the New Source Performance Standards of Subpart GG in 40 CFR 60, adopted by reference in Rule 62-204.800, F.A.C. This regulation establishes standards for emissions of NOx and SO2 as well as testing and monitoring requirements. Based on the manufacturer's estimated performance and the emissions standards established in the permit, the gas turbine will readily comply with the NSPS requirements. In addition, the draft permit includes emissions standards and monitoring requirements to ensure that the facility remains a minor source of air pollution. The Bureau of Air Regulation processed this application because Florida Gas Transmission requested that all Phase V projects be reviewed in Tallahassee for purposes of consistency.

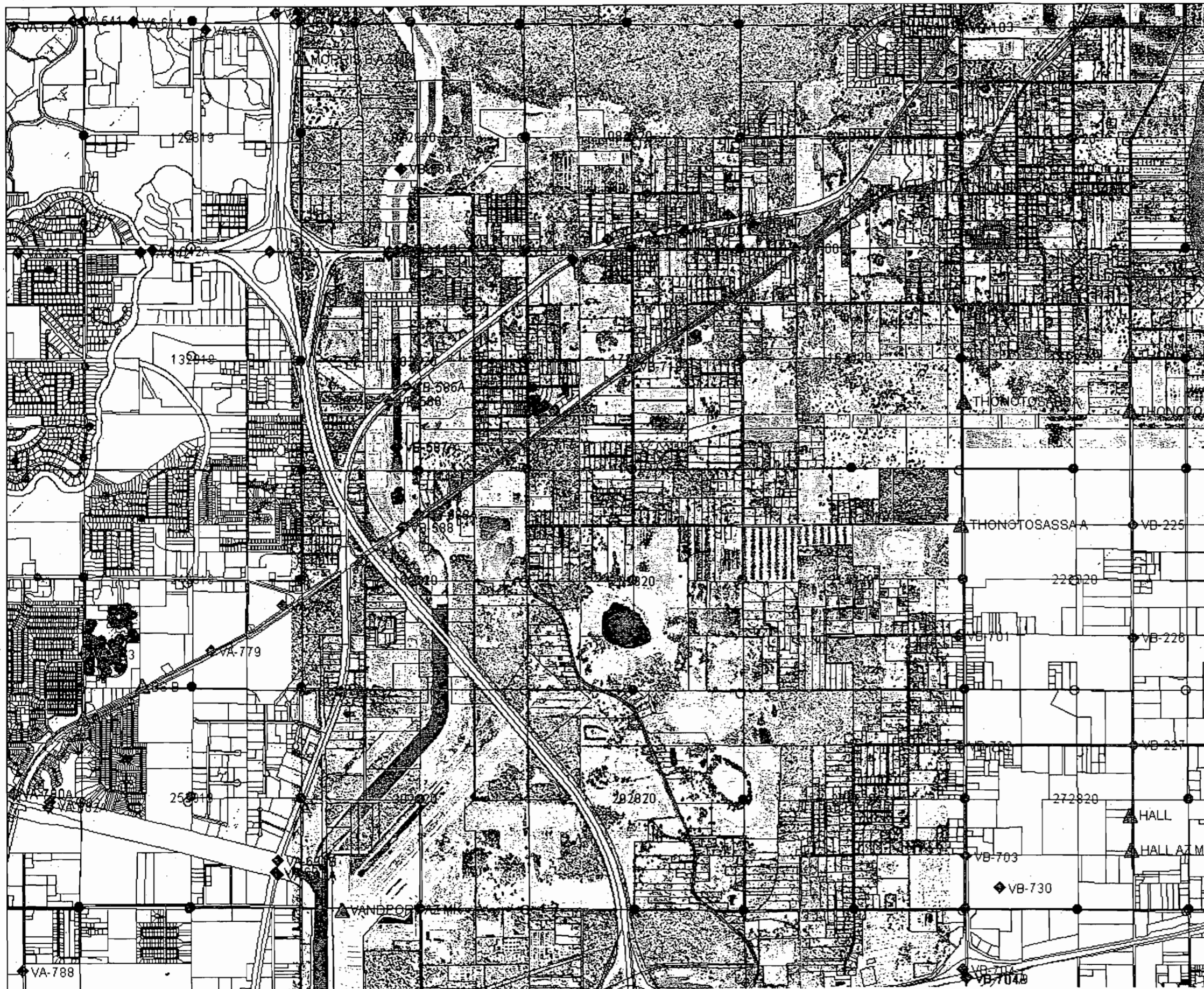
I HEREBY CERTIFY that the air pollution control engineering features described in the above referenced application and subject to the proposed permit conditions provide reasonable assurance of compliance with applicable provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296, and 62-297. However, I have not evaluated and I do not certify aspects of the proposal outside of my area of expertise (including but not limited to the electrical, mechanical, structural, hydrological, and geological features).

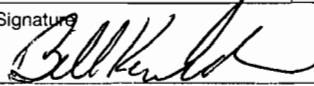


Jeffery F. Koerner, P.E.
Registration Number: 49441


3-4-02
(Date)





SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY	
<ul style="list-style-type: none"> ■ Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired. ■ Print your name and address on the reverse so that we can return the card to you. ■ Attach this card to the back of the mailpiece, or on the front if space permits. 	A. Received by (Please Print Clearly)	B. Date of Delivery
1. Article Addressed to: Mr. Rick Craig V.P. of Southeastern Operations Florida Gas Transmission Company PO Box 1188 Houston, TX 77251	C. Signature X  <input type="checkbox"/> Agent <input type="checkbox"/> Addressed D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No	
2. Article <u>7001 0320 0001 3692 8130</u>	3. Service Type <input checked="" type="checkbox"/> Certified Mail <input type="checkbox"/> Express Mail <input type="checkbox"/> Registered <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D. 4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes	

PS Form 3811, July 1999 Domestic Return Receipt 102595-00-M-0952

U.S. Postal Service
CERTIFIED MAIL RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

7001 0320 0001 3692 8130

OFFICIAL USE

Postage	\$	Postmark Here
Certified Fee		
Return Receipt Fee <small>(Endorsement Required)</small>		
Restricted Delivery Fee <small>(Endorsement Required)</small>		
Total Postage & Fees	\$	

Sent To **Rick Craig**

Street, Apt. No., or PO Box **PO Box 1188**

City, State, ZIP+4 **Houston, TX 77251**

PS Form 3800, January 2001 See Reverse for Instructions

Jeff,

3/19/02

Jim Thompson asked me to send the enclosed information for C.S. 27. (Usq MAP+Plot)

I have also enclosed the proof of publication for C.S. 27. The ~~news~~ ran on March 12th.

RECEIVED

MAR 20 2002

BUREAU OF AIR REGULATION

THANKS,

Heather Kendrick
813-655-7441

Jeff,

RECEIVED

APR 08 2002
BUREAU OF AIR REGULATION

Jim Thompson asked me to forward the attached Aerial Site Plans in to you.

Please call if you have any questions.

Thanks,
Heather Kendrick
813-655-7441



COMPRESSOR STATION NO. 27
FGT PHASE V EXPANSION
AERIAL SITE PLAN

AVAILABLE IN FILE

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Mr. Rick Craig
 V.P. of Southeastern Operations
 Florida Gas Transmission Company
 P.O. Box 1188
 Houston, TX 77251

COMPLETE THIS SECTION ON DELIVERY

A. Received by (Please Print Clearly) B. Date of Delivery

[Signature]

MAR 09 2002

C. Signature

X *[Signature]*

- Agent
- Addressee

D. Is delivery address different from item 1? Yes
 If YES, enter delivery address below: No

3. Service Type

- Certified Mail Express Mail
- Registered Return Receipt for Merchandise
- Insured Mail C.O.D.

4. Restricted Delivery? (Extra Fee) Yes

7001 0320 0001 3692 9267

PS Form 3811, July 1999

Domestic Return Receipt

102595-00-M-00

**U.S. Postal Service
 CERTIFIED MAIL RECEIPT
 (Domestic Mail Only; No Insurance Coverage Provided)**

7001 0320 0001 3692 9267

OFFICIAL USE

Postage	\$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$

Postmark
Here

Sent To
 Rick Craig
 Street, Apt. No.,
 or PO Box No. Box 1188
 City, State, ZIP+4
 Houston, TX 77251

PS Form 3800, January 2001

See Reverse for Instructions

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Mr. Richard Craig
 V.P. of Southeast Operations
 Florida Gas Transmission Company
 Post Office Box 1188
 Houston, TX 77251

COMPLETE THIS SECTION ON DELIVERY

A. Received by (Please Print Clearly) *7 Broadway* B. Date of Delivery *8/11/03*

C. Signature *[Signature]* Agent
 Addressee

D. Is delivery address different from item 1? Yes
 If YES, enter delivery address below: No

3. Service Type
 Certified Mail Express Mail
 Registered Return Receipt for Merchandise
 Insured Mail C.O.D.

4. Restricted Delivery? (Extra Fee) Yes

2. 7001 0320 0001 3692 5436

PS Form 3811, July 1999 Domestic Return Receipt 102595-99-M-1789

0571279-001
 5/5/04

U.S. Postal Service
CERTIFIED MAIL RECEIPT
 (Domestic Mail Only; No Insurance Coverage Provided)

OFFICIAL USE

Postage	\$	Postmark Here
Certified Fee		
Return Receipt Fee (Endorsement Required)		
Restricted Delivery Fee (Endorsement Required)		
Total Postage & Fees	\$	

Sent To Richard Craig
 Street, Apt. No.,
 or P.O. Box 1188
 City, State, ZIP+4
Houston, TX 77251

PS Form 3800, January 2001 See Reverse for Instructions

7001 0320 0001 3692 5436

Florida Department of
Environmental Protection

Memorandum

TO: *Michael Cooke,*
~~Joseph Kahn~~, Division of Air Resources Management

THRU: Trina Vielhauer, Bureau of Air Regulation *TV*
Al Linero, New Source Review Section *AL* 7/30

FROM: Jeff Koerner, New Source Review Section *JK*

DATE: July 30, 2003

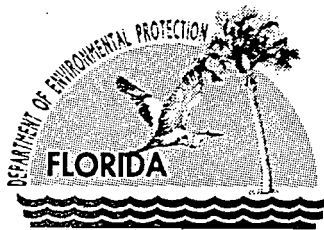
SUBJECT: Extension of Permit Expiration Date
Air Permit No. 0571279-001-AC
Florida Gas Transmission Company
Station No. 27, Hillsborough County, Engine 2701

Attached for your approval and signature is a modification that extends the permit expiration date for the above referenced project. Florida Gas Transmission Company (FGTC) requests an extension of the air construction to provide additional time to repair and test the unit. The engine is a Rolls Royce Model No. 01-KC7-DLE gas turbine. This engine model is experiencing several mechanical and operational problems such as compressor bleed valve failures and automatic control system problems. After less than 300 hours of operation, the original Engine 2701 was replaced. After about 500 hours, the replacement Engine 2701 was found to have cracks in the combustion can liner. The manufacturer has determined that the unit can be repaired in the field. The attached extension will allow FTGC to repair and test the engine as well as submit a complete application for a Title V air operation permit. Day 74 is October 10, 2003. I recommend your approval and signature.

Attachments

Mike,
It seems Rolls Royce had a problem --
we issued a similar extension on another
facility for the same reasons.

Trina



Department of Environmental Protection

Jeb Bush
Governor

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

David B. Struhs
Secretary

August 1, 2003

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Richard Craig, V.P. of Southeast Operations
Florida Gas Transmission Company
P.O. Box 1188
Houston, TX 77251

Re: Extension of Air Construction Permit
Hillsborough Compressor Station No. 27 – Engine 2701
Air Permit No. 0571279-001-AC, Extension

Dear Mr. Craig:

Florida Gas Transmission Company (FGTC) is in the process of constructing new compressor Station No. 27, which consists of two 7200 bhp Rolls Royce Model No. 01-KC7-DLE gas turbines. The compressor station is located approximately two miles south of U.S. Highway 301 on County Road 579 near the city of Thonotosassa in Hillsborough County, Florida. Engine 2702 is installed, tested, and in operation. Engine 2701 has experienced mechanical and operation problems. On May 1st, the expiration date of the above air construction permit was extended to November 1, 2003 to provide additional time to complete the installation and testing of Engine 2701. On June 27th, the Department received notification from FGTC that the original Engine 2701 would be permanently replaced with an identical unit due to the continuing problems. The original engine had operated less than 300 hours. On July 29th, FGTC requested a second extension of the above air construction permit to repair cracks in the combustion can liner of the replacement Engine 2701 and provide additional time to test the unit. The replacement engine has operated about 500 hours.

The Department approves the request. The permit is hereby extended from **November 1, 2003 to July 1, 2004** to repair the engine, conduct all required initial tests, and submit a complete application for a Title V air operation permit. A copy of this letter shall be filed with the referenced permit and shall become part of the permit. This permitting decision is issued pursuant to Chapter 403, Florida Statutes.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida, 32399-3000. Petitions filed by the permit applicant or any of the parties listed below must be filed within fourteen (14) days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under section 120.60(3), F.S., must be filed within fourteen (14) days of publication of the public notice or within fourteen (14) days of receipt of this notice of intent, whichever occurs first. Under Section 120.60(3), F.S., however, any person who asked the Department for notice of agency action may file a petition within fourteen (14) days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner, the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the

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proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and (g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts upon which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

Mediation is not available in this proceeding.

In addition to the above, a person subject to regulation has a right to apply for a variance from or waiver of the requirements of particular rules, on certain conditions, under Section 120.542, F.S. The relief provided by this state statute applies only to state rules, not statutes, and not to any federal regulatory requirements. Applying for a variance or waiver does not substitute or extend the time for filing a petition for an administrative hearing or exercising any other right that a person may have in relation to the action proposed in this notice of intent.

The application for a variance or waiver is made by filing a petition with the Office of General Counsel of the Department, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. The petition must specify the following information: (a) The name, address, and telephone number of the petitioner; (b) The name, address, and telephone number of the attorney or qualified representative of the petitioner, if any; (c) Each rule or portion of a rule from which a variance or waiver is requested; (d) The citation to the statute underlying (implemented by) the rule identified in (c) above; (e) The type of action requested; (f) The specific facts that would justify a variance or waiver for the petitioner; (g) The reason why the variance or waiver would serve the purposes of the underlying statute (implemented by the rule); and (h) A statement whether the variance or waiver is permanent or temporary and, if temporary, a statement of the dates showing the duration of the variance or waiver requested.

The Department will grant a variance or waiver when the petition demonstrates both that the application of the rule would create a substantial hardship or violate principles of fairness, as each of those terms is defined in Section 120.542(2), F.S., and that the purpose of the underlying statute will be or has been achieved by other means by the petitioner.

Persons subject to regulation pursuant to any federally delegated or approved air program should be aware that Florida is specifically not authorized to issue variances or waivers from any requirements of any such federally delegated or approved program. The requirements of the program remain fully enforceable by the Administrator of the EPA and by any person under the Clean Air Act unless and until the Administrator separately approves any variance or waiver in accordance with the procedures of the federal program.

This permitting decision is final and effective on the date filed with the clerk of the Department unless a petition is filed in accordance with the above paragraphs or unless a request for extension of time in which to file a petition is filed within the time specified for filing a petition pursuant to Rule 62-110.106, F.A.C., and the petition conforms to the content requirements of Rules 28-106.201 and 28-106.301, F.A.C. Upon timely filing of a petition or a request for extension of time, this action will not be effective until further order of the Department.

Any party to this permitting decision (order) has the right to seek judicial review of it under Section 120.68, F.S., by filing a notice of appeal under Rule 9.110 of the Florida Rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel, Mail Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000, and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The notice must be filed within thirty (30) days after this order is filed with the clerk of the Department.

Executed in Tallahassee, Florida.

Michael G. Cooke

Michael G. Cooke, Director
Division of Air Resources Management

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this order was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on 8/5/03 to the persons listed below.

Mr. Richard Craig, FGTC*
Mr. Jacob Krautsch, FGTC
Mr. Kevin McGlynn, McGlynn Consulting Co.
Mr. V. Duane Pierce, AQMcS
Mr. Jerry Campbell, EPC of HC
Mr. Gerry Kissel, SWD

Clerk Stamp

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

Victoria Gibson August 5, 2003
(Clerk) (Date)



Florida Gas Transmission Company

1967 Commonwealth Lane, Tallahassee, FL 32303, (850) 350-5000, Fax Downstairs (850) 350-5001

July 28, 2003

UPS Overnight – 1Z F62 059 22 1003 308 2

Mr. Jeff Koerner, P.E.
New Source Review Section
Bureau of Air Regulation
Florida Department of Environmental Protection
2600 Blainstone Road MS 5500
Tallahassee, FL 32399-2400

RECEIVED

JUL 29 2003

BUREAU OF AIR REGULATION

Reference: Permit No. 0571279-001-AC
Compressor Station No. 27, Hillsborough County

Dear Mr. Koerner:

Subject: Extension of Construction Permit Expiration

New problems have been discovered with the Rolls Royce Model 501 KC-7 Engine (No. 2701) located at Florida Gas Transmission Company (FGT) Compressor Station No. 27. Cracks have been found in the combustion can liner and repairs need to be made. As a result, it will not be possible for FGT to complete the repairs, perform the required initial emissions compliance test and apply for an operating permit at least 60 days before the expiration date of the above referenced Construction Permit.

FGT requests a 90 day extension for the referenced construction permit in order to complete the repairs, perform the required Subpart GG emissions test and to submit an application for the operating permit.

If you have any questions or need additional information, please call me at (850) 350-5042 or Dr. Duane Pierce at (281) 373-5365.

Sincerely,

Jacob Krautsch
Division Environmental Specialist

CC: Air Compliance Section, Southwest District, Florida Department of Environmental Protection, 3804 Coconut Palm Drive, Tampa, Florida 33619-8218
Environmental Protection Commission of Hillsborough County, Air Management Division, 1410 21st Street, Tampa, Florida 33605
V. Duane Pierce - AQMs, LLC
C/S 27 File



Florida Gas Transmission Company

Capital Projects Field Office, 111 Kelsey Lane, Ste. A., Tampa, FL 33619
813.655.7441 / 800.381.1477

May 29, 2003

Mr. Jeff Koerner, P.E.
New Source Review Section
Bureau of Air Regulation
Florida Department of Environmental Protection
2600 Blairstone Road MS 5500
Tallahassee, FL 32399-2400

RECEIVED

JUN 27 2003

BUREAU OF AIR REGULATION

Reference: Permit No. 0571279-001-AC
Emissions Unit ID No. 001
Compressor Station No. 27, Hillsborough County

Dear Mr. Koerner:

Subject: Replacement of Turbine 2701

Florida Gas Transmission Company must replace Turbine No. 2701 (EPN 001). Turbine No. 2701 was installed at the above referenced facility under the referenced construction permit. The unit that was installed does not operate correctly and Rolls Royce has determined that the turbine must be replaced. The replacement turbine will be the same model as the original and all emissions and other engine parameters will remain the same. The replacement turbine will remain in place as the permanent installation.

The turbine that was initially installed operated for 254 hours. It is no longer being operated and will not be returned to the facility after repair.

If you have any questions or need additional information, please call me at (800) 381-1477 or Dr. Duane Pierce at (281) 373-5365.

Sincerely,

Jim Thompson
Project Manager, Environmental

CC: Air Compliance Section, Southwest District, Florida Department of Environmental Protection, 3804 Coconut Palm Drive, Tampa, Florida 33619-8218
Environmental Protection Commission of Hillsborough County, Air Management Division, 1410 21st Street, Tampa, Florida 33605
Jake Krautsch

V. Duane Pierce - AQMcs, LLC
C/S 27 File

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Mr. Richard Craig
 V.P. of Southeast Operations
 Florida Gas Transmission Company
 Post Office Box 1188
 Houston, TX 77251

COMPLETE THIS SECTION ON DELIVERY

A. Received by (Please Print Clearly) B. Date of Delivery

7 BROOKWAY 8/11/13

C. Signature

X [Signature] Agent Addressee

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 If YES, enter delivery address below:

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 Registered Return Receipt for Merchandise
 Insured Mail C.O.D.

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PS Form 3811, July 1999

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 Richard Craig
 Street, Apt. No.,
 or P.O. Box 1188
 City, State, ZIP+4
 Houston, TX 77251

PS Form 3800, January 2001

See Reverse for Instructions

Kennedy, Pat

xc: Jeff

CLAIR

7/22

From: Kennedy, Pat
Sent: Monday, July 22, 2002 10:13 AM
To: Goletz, Katherine
Cc: Koerner, Jeff; Fancy, Clair
Subject: RE: Michael Bilirakis - request to meet

Good Morning, Katherine - Howard has talked to Jeff Koerner in the Bureau of Air Regulation, and he will attend this meeting.

Pat

-----Original Message-----

From: Goletz, Katherine
Sent: Thursday, July 18, 2002 2:29 PM
To: Rhodes, Howard
Cc: Kennedy, Pat
Subject: FW: Michael Bilirakis - request to meet
Importance: High

Howard- Can you attend this meeting for Allan?

-----Original Message-----

From: Godwin, Kara
Sent: Thursday, July 18, 2002 12:54 PM
To: Getzoff, Deborah
Cc: Mitchell, Merritt; Bedwell, Allan; Goletz, Katherine; Lynch, Sandra
Subject: Michael Bilirakis - request to meet
Importance: High

Deborah:

Please see attached meeting request to Secretary Struhs regarding public meeting on August 6 and provide input as to DEP's participation. Should this be handled by District?

Additional letter sent today requesting the Department's designee to make a presentation at meeting on the proposed Florida Gas Transmission compressor station # 2. This document to be faxed to you and cc: Allan

Thank you,
Kara

Kara L. Godwin
Office of the Secretary
Florida Department of Environmental Protection
3900 Commonwealth Blvd.
Tallahassee, Florida 32399
(850)488-1554 phone
(850)413-0672 fax
kara.godwin@dep.state.fl.us

"More Protection, Less Process"

SCHEDULING FOR SECRETARY DAVID STRUHS

Event: Meeting with Michael Bilirakis - Member of Congress
Location: not yet been determined
Date: August 6, 2002
Time: not yet been determined

Contact: Michael Bilirakis
Phone: 202/225-5755 in Washington or District office 727/441-3721
Fax:
E-mail:

Topic / Re: A Public meeting has been scheduled to discuss Florida Gas Transmission who has applied to DEP for an air permit for the proposed station and that an administrative hearing on the permit application has been scheduled for mid-July.

Format:

Comments: Local residents are concerned that the EIS for the project does not provide adequate information on issues pertaining to the operation of the facility and its impact on air quality on the local community. Letter was assigned to DRAM for handling. Copies forwarded to Allan Bedwell and Mike Joyner.

Audience: Public Meeting / local residents
Press:

Fact Sheets:

Remarks:

Yes
 No

Refer to staff:

Copies to:

MICHAEL BILIRAKIS
9TH DISTRICT, FLORIDA



COMMITTEE ON ENERGY AND COMMERCE
CHAIRMAN, HEALTH SUBCOMMITTEE
MEMBER, TELECOMMUNICATIONS AND THE INTERNET
SUBCOMMITTEE
MEMBER, OVERSIGHT AND INVESTIGATIONS
SUBCOMMITTEE

COMMITTEE ON VETERANS' AFFAIRS
FULL COMMITTEE VICE-CHAIRMAN
MEMBER, OVERSIGHT AND INVESTIGATIONS
SUBCOMMITTEE

WORLDWIDE WEB PAGE:
www.house.gov/bilirakis

Congress of the United States
House of Representatives
Washington, DC 20515-0909

July 16, 2002

PLEASE RESPOND TO:

- WASHINGTON OFFICE:
2289 RAYBURN HOUSE OFFICE BUILDING
WASHINGTON, DC 20515-0908
(202) 225-6766
- DISTRICT OFFICE:
1100 CLEVELAND STREET, SUITE 1000
CLEARWATER, FL 33755
(727) 441-3721
- 4111 LAND O' LAKES BOULEVARD
SUITE 306
LAND O' LAKES, FL 34639
(813) 996-7441

The Honorable David B. Struhs
Secretary
Florida Department of Environmental Protection
3900 Commonwealth Boulevard
MS 10
Tallahassee, Florida 32399-3000

Dear Secretary Struhs:

As you may recall from my previous correspondence, I am planning a public meeting regarding the proposed Florida Gas Transmission compressor station #27. I would like to invite you or your designee to make a presentation at the meeting.

The purpose of the meeting is to allow the Federal Energy Regulatory Commission (FERC) and the Florida Department of Environmental Protection (Florida DEP) to discuss the project approval process. I am particularly interested in having the Florida DEP explain its permitting approval process as well as the administrative hearing process to my constituents. Several local community representatives will also make brief presentations during the meeting.

I am sponsoring a public forum on Tuesday, August 6, 2002, from 5:30 p.m. to 7:30 p.m. at the Sterling Heights Recreation Center, located at 11706 Thonotosassa Road in Thonotosassa.

I look forward to your participation in this important meeting. If you have any questions, please do not hesitate to contact me or my Administrative Assistant, Rebecca Hyder, at 202-225-5755.

Sincerely yours,
Mike Bilirakis
Michael Bilirakis
Member of Congress

MB:rh



***A facsimile transmission from the office of
Congressman Michael Bilirakis***

**2269 Rayburn House Office Building
Washington, D.C. 20515
Telephone #: (202) 225-5755
Fax #: (202) 225-4085**

To: Howard Rhodes

Fax #: 850-922-6977

Date: 7/17/02

From:

- | | |
|---|--|
| <input type="checkbox"/> Cong. Michael Bilirakis | <input type="checkbox"/> Erin Ockunzzi |
| <input type="checkbox"/> Jeremy Allen | <input type="checkbox"/> Sarah Owen |
| <input checked="" type="checkbox"/> Rebecca Hyder | <input type="checkbox"/> Elizabeth Pham |
| <input type="checkbox"/> Robby Kumar | <input type="checkbox"/> Christy Stefadorous |
| <input type="checkbox"/> Carrie Melvin | <input type="checkbox"/> Jackie Troy |
| <input type="checkbox"/> Doug Menorca | <input type="checkbox"/> _____ |

Total number of pages: 2

Comments: _____

The information contained in this facsimile message is legally privileged and confidential information intended only for the use of the individual or entity named above. If the reader of this message is not the intended recipient, you are hereby notified that any dissemination, distribution, or copy of this facsimile is strictly prohibited. If you have received this facsimile in error, please immediately notify us by telephone and return the original message to us at the address via the U.S. Postal Service. Thank you.



Florida Gas Transmission Company

Capital Projects Field Office, 111 Kelsey Lane, Ste. A., Tampa, FL 33619
813.655.7441 / 800.381.1477

January 5, 2002

Mr. Clair H. Fancy, P.E.
Bureau of Air Regulation
Florida Department of Environmental Protection
Twin Towers Office Bldg.
2600 Blirstone
Tallahassee, FL 32399-2400

RECEIVED

JAN 28 2002

BUREAU OF AIR REGULATION

Reference: Facility: New
Compressor Station No. 27, Hillsborough County

Dear Mr. Fancy:

Subject: Application for Air Construction Permit

Florida Gas Transmission Company (FGT) is proposing to construct a new natural gas pipeline compressor station. This facility will be located in Hillsborough County and designated as Compressor Station No. 27. The facility will consist of two 7,200 (ISO) bhp turbine compressor engines and supporting equipment. The new facility will be a minor source under Title V and New Source Review regulations; therefore, only a state construction permit is required.

Enclosed is an Application for an Air Construction Permit for the proposed facility. A check for \$4,500.00 is attached for the application fee.

If you have any questions or need additional information, please call me at (800) 381-1477.

Sincerely,

Jim Thompson
Environmental Project Manager
For Florida Gas Transmission Company Phase V Project

CC: James Alexander, Phase V w/o attachments
Rick Craig, w/o attachments
Frank Diemont
Jake Krautsch, Tallahassee

Florida Gas Transmission Company

Phase V Expansion Project

Compressor Station No. 27

**APPLICATION
For
AIR CONSTRUCTION
PERMIT**

January 2002

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1.0 INTRODUCTION

Florida Gas Transmission Company (FGT), a Delaware Corporation and an ENRON/EL PASO affiliate of Houston, Texas, is proposing to construct a new natural gas pipeline compression facility in Hillsborough County near Thonotosassa, Florida (Compressor Station No. 27). This proposed facility is part of FGT's Phase V Expansion Project, aimed at increasing the supply capacity of FGT's network servicing domestic, commercial, and industrial customers. The scope of work for the Phase V Expansion Project includes expansion through the addition of two state-of-the-art compressor turbine engines at this new compressor station. Compressor Station No. 27 is located in Hillsborough County on County Road 579 approximately 2 miles south of U.S. 301. Figure 1-1 shows the proposed location of the new compressor station.

The proposed expansion consists of the installation of two new 7,200 brake horsepower (bhp) (ISO with site elevation), natural gas-fired, turbine compressor engines. Under current federal and state air quality regulations, the proposed new facility will be a minor source under PSD definitions and Title V Regulations.

This application contains three additional sections. Descriptions of the proposed new engine and supporting facilities are presented in Section 2.0. The applicability of state and federal regulations are discussed in Section 3.0 and references are included in Section 4.0.

FDEP permit application forms are presented in Attachment A. Attachment B contains a plot plan of the new facility, Attachment C contains vendor information and Attachment D contains emission calculations.

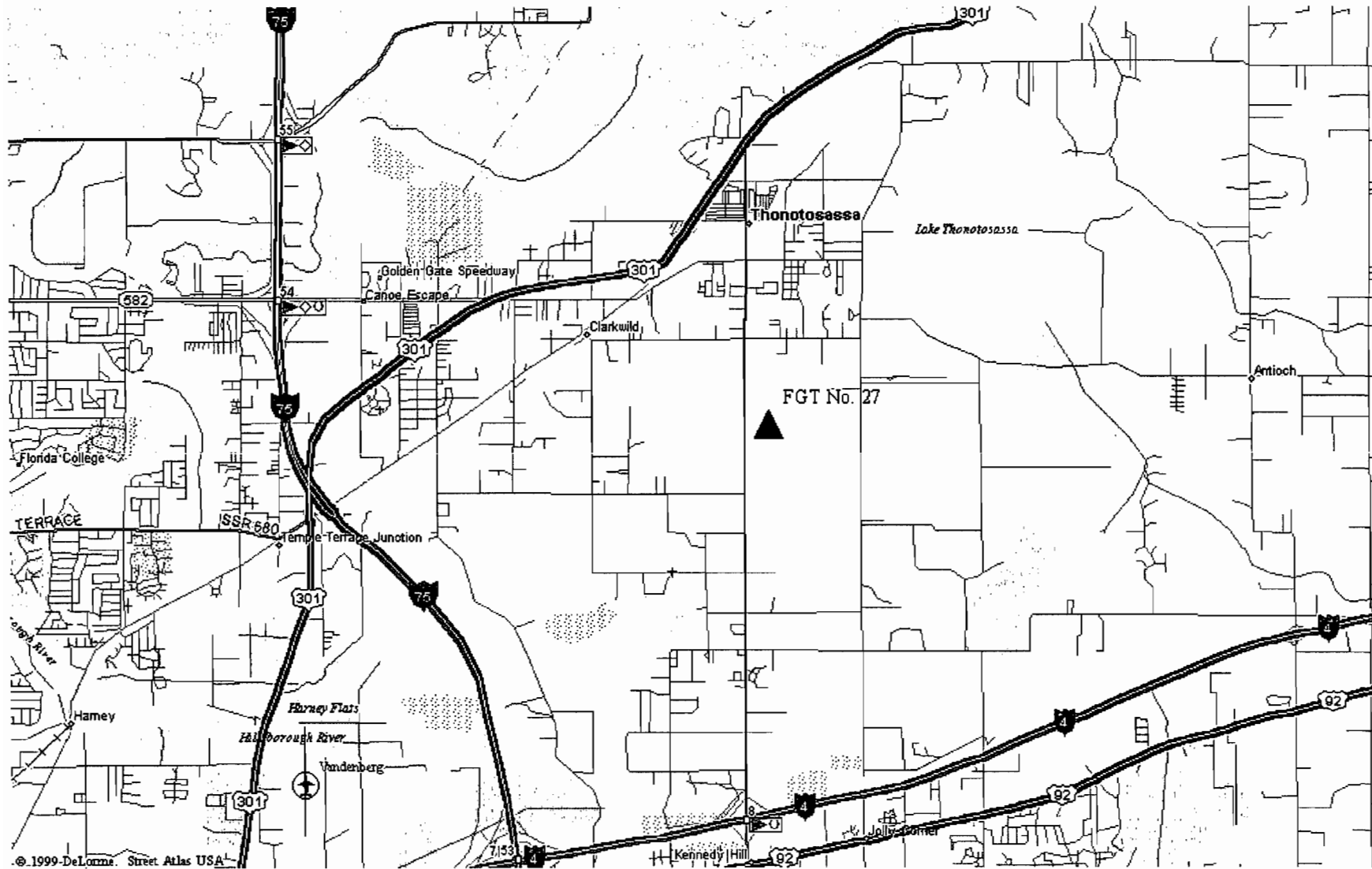


Figure 1.1 Location Map

2.0 PROJECT DESCRIPTION

A plot plan of FGT's Compressor Station No. 27, showing the location of the plant boundaries and the location of the new engines, is presented in Attachment B. The following sections provide a description of the proposed project.

2.1 Proposed New Compressor Station

FGT's proposed Compressor Station No. 27 will consist of two 7,200 bhp natural gas-fired turbine compressor engines and associated support equipment. FGT proposes to construct this compressor station, as part of the Phase V Expansion Project. This facility is necessary to increase the volumetric delivery capacity necessary to meet both short and long-term demands for natural gas.

2.1.1 New Compressor Engines

The new engines will be Cooper-Rolls Royce 501-KC7 DLE compressor turbines rated at 7,200 bhp each at ISO conditions with site elevation. Fuel will be exclusively natural gas from the FGT's natural gas pipeline. Engine specifications and stack parameters for the proposed engine are presented in Table 2-1.

Hourly and annual emissions of regulated pollutants from the proposed engine under normal operating conditions are presented in Table 2-2. Emissions of oxides of nitrogen (NO_x), carbon monoxide (CO) and volatile organic compounds (VOC) are based on the engine manufacturer's supplied data (See Attachment C).

Typically, engine vendors do not provide information on particulate matter (PM) or sulfur dioxide (SO₂) emissions; therefore, particulate matter emissions are based upon USEPA publication AP-42 Table 3.1-2a (USEPA, 2000) and emissions of SO₂ are based on FGT's Federal Energy Regulatory Commission (FERC) certificate limit of 10 grains sulfur per 100 cubic feet of natural gas. Hazardous air pollutant (HAP) emissions are based upon the Gas Research Institute's GRI HapCalc 3.1 software.

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Table 2-1 Proposed Compressor Engine 2701/2702 Specifications and Stack Parameters

Parameter	Design
Compressor Engine	
Type	2701/2702
Manufacturer	Cooper-Rolls Royce
Model	501-KC7 DLE
Unit Size	7,200 bhp (ISO /w site elev.)
Specific Heat Input ^a	8,736 Btu/hp-hr
Maximum Fuel Consumption ^a	0.0605 MMscf/hr
Speed	13,600 rpm
Stack Parameters	
Stack Height	61.17 ft
Stack Diameter	88" X 66"
Exhaust Gas Flow	98,206 acfm
Exhaust Temperature	958 °F
Exhaust Gas Velocity	40.58 ft/sec
<p>NOTE:</p> <p>" = inches</p> <p>acfm = actual cubic feet per minute.</p> <p>bhp = brake horsepower.</p> <p>Btu/bhp-hr = British thermal units per brake horsepower per hour.</p> <p>°F = degrees Fahrenheit.</p> <p>ft = feet.</p> <p>ft/sec = feet per second.</p> <p>MMscf/hr = million standard cubic feet per hour</p> <p>rpm = revolutions per minute.</p> <p>^a Based on vendor provided heat input value plus 10% and a heating value for natural gas of 1040 British thermal units per standard cubic foot (Btu/scf).</p>	

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Table 2-2 Emissions from Each of FGT's Proposed 2701/2702 Compressor Engines

Pollutant	Emission Factor	Reference	lb/hr	TPY
Nitrogen Oxides	5.7 lb/hr	Manufacturer Data	5.7	25.0
Carbon Monoxide	6.96 lb/hr	Manufacturer Data	6.96	30.5
Volatile Organic Compounds (non methane)	1.49 lb/hr	Manufacturer Data	1.49	6.5
Particulate Matter	0.0066 lb/MMBtu	AP-42, Table 3.1-2a	0.42	1.8
Sulfur Dioxide	10 grains/100 scf	FERC Limit	1.73	7.6
HAPs	0.0217 g/bhp-hr See Attachment D	GRI HapCalc 3.0	0.345	1.5

* Emissions based on vendor provided fuel use value plus 10 per cent

2.1.2 Support Equipment

In addition to the compressor engine, some support equipment will be installed at the site. They include:

- Two compressor buildings
- An auxiliary building
- One gas-fired emergency generator
- One 100 bbl hydrocarbon storage tank
- One 100 bbl oily water storage tank

The locations of the structures are shown on the facility plot plan contained in Attachment B. The compressor buildings, housing the two Rolls Royce 501-KC7 DLE turbines, have approximate dimensions of 40 feet wide by 60 feet long by 29.5 feet high. The approximate dimensions of the auxiliary building will be 24 feet wide by 50 feet long by 17 feet high. Emission calculations for support equipment can be found in Attachment D.

2.1.2.1 New Emergency Generator

The new generator will be powered by a natural gas fueled, lean burn Waukesha Model H24GL rated at 440 kW (585 bhp). Engine specifications and stack parameters for the proposed engine are presented in Table 2-3 and emissions are presented in Table 2-4.

2.1.2.2 New Storage Tanks

Two new storage tanks will be installed at Compressor Station No. 27. They are listed in Table 2-5 along with specifications. Emissions were calculated with the U.S EPA's (USEPA) Tank 3.0 program. Details of the calculations can be found in Attachment D.

2.1.2.3 Fugitive Emissions

Potential new emissions from Compressor Station No. 27 also include fugitive emissions from the new valves and flanges that will be in gas service. These fugitive emissions have been estimated using USEPA factors for components in gas service at oil and gas facilities (EPA publication EPA-453/R-95-017, November 1995, "Protocol for Equipment Leak Emission Estimates"). Table 2-6 lists the quantities new components to be added as part of the Phase V

AQMCs

Expansion Project and an estimate of the fugitive emissions from these sources.

Table 2-3 Proposed Emergency Generator Engine Specifications and Stack Parameters

Parameter	Design
Compressor Engine	Gen 01
Type	Natural Gas, Lean Burn Reciprocating
Manufacturer	Waukesha
Model	H24GL
Unit Size	585 bhp
Heat Input	4.11 MM Btu/hr
Fuel Consumption ^a	0.00395 MMscf/h
Speed	1800 rpm
Stack Parameters	
Stack Height	20 ft
Stack Diameter	0.67 ft
Exhaust Gas Flow	5,300 lb/hr
Exhaust Gas Flow	2,911 acfm
Exhaust Temperature	842 °F
Exhaust Gas Velocity	138.85 ft/sec
<p>NOTE:</p> <p>acfm = actual cubic feet per minute. bhp = brake horsepower. Btu/hr = British thermal units per hour. °F = degrees Fahrenheit. ft = feet. ft/sec = feet per second. Lb/hr = pound per hour. rpm = revolutions per minute. scf/h = standard cubic feet per hour</p> <p>^a Based on heating value for natural gas of 1040 British thermal units per standard cubic foot (Btu/scf).</p>	

AQMcs

Table 2-4 Emissions from FGT's Proposed Generator Engine

Pollutant	Emission Factor	Reference	lb/hr	TPY
Nitrogen Oxides	2.1 g/hp-hr	Manufacturer Data	2.71	0.68
Carbon Monoxide	1.4 g/hp-hr	Manufacturer Data	1.81	0.45
Volatile Organic Compounds (non methane)	0.24 g/hp-hr	Manufacturer Data	0.31	0.08
Particulate Matter	0.00999 lb/MMBtu	AP-42, Table 3.2-2	0.04	0.01
Sulfur Dioxide	10 grains/100 scf	FERC Limit	0.11	0.03

* Based on 500 hours of operation per year

Table 2-5 New Storage Tanks for Compressor Station No. 27

Tank Name	Condensate Tank	Oily Water Tank
Type of Tank	Vertical, Cone Roof	Vertical, Cone Roof
Contents	Hydrocarbon Liquids	Drain water from washings; oily water
Dimensions	9'-6" dia x 8'-0" high	9'-6" dia x 8'-0" high
Capacity	4,200 Gallons	4,200 Gallons
Paint Color	White	White
Maximum Annual Throughput	3000 Gallons	3000 Gallons
VOC Emissions (tpy)	0.01	<0.001

Table 2-6 VOC Fugitive Emission Calculations and Summary

Component	Service	Component	Emissions *	NM/NE	Emissions
		Count	Factor (ton/yr)	Fraction	(ton/yr)
Valves	Gas	196	0.0434606	0.05	0.43
Connector	Gas	0	0.0019316	0.05	0.00
Flanges	Gas	228	0.0037666	0.05	0.04
Open-Ended Line	Gas	70	0.0193158	0.05	0.07
Pumps	Gas	2	0.023179	0.05	0.00
Other	Gas	0	0.0849895	0.05	0.00
Valves	Light Oil	22	0.0241448	1.00	0.53
Connector	Light Oil	0	0.0020282	1.00	0.00
Flanges	Light Oil	30	0.0010624	1.00	0.03
Open-Ended Line	Light Oil	1	0.0135211	1.00	0.01
Pumps	Light Oil	0	0.1255527	1.00	0.00
Other	Light Oil	0	0.0724343	1.00	0.00
Valves	Heavy Oil	30	0.0000811	1.00	0.00
Connector	Heavy Oil	0	0.0000724	1.00	0.00
Flanges	Heavy Oil	184	0.0000038	1.00	0.00
Open-Ended Line	Heavy Oil	3	0.0013521	1.00	0.00
Other	Heavy Oil	4	0.0002994	1.00	0.00
				TOTAL:	1.12

*EPA publication EPA-453/R-95-017, November 1995, "Protocol for Equipment Leak Emission Estimates"

2.2 Emissions Summary

The total changes in emissions resulting from the project are listed on Table 2-7. As can be seen from the table, the total new emissions are not significant under PSD regulations. The calculations used to estimate these emissions are presented in Attachment D.

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Table 2-7 Potential Annual Emissions (tpy) Summary

SOURCE ID	DESCRIPTION	NO _x	CO	VOC ^a	SO ₂	PM
NEW EMISSION SOURCES						
2701	7,200 bhp Recip. Engine	25.0	30.5	6.5	7.6	1.8
2702	7,200 bhp Recip. Engine	25.0	30.5	6.5	7.6	1.8
GEN01	585 bhp Recip. Engine	0.7	0.5	0.1	0.0	0.0
	OTHER SOURCES: ^b	0.0	0.0	1.1	0.0	0.0
NEW EMISSIONS TOTALS:		50.7	61.5	14.2	15.2	3.6
<p>(a) VOC = Non-methane HC (b) Other Sources Includes ancillary equipment, storage tanks and equipment leaks</p>						

3.0 REGULATORY ANALYSIS

This section presents a review of federal and Florida State air quality regulations, which govern the operations and proposed construction to be conducted at Compressor Station No. 27.

3.1 Federal Regulations Review

The federal regulatory programs administered by the USEPA have been developed under the authority of the Clean Air Act. The following subsections review the essential elements of the federal regulatory program and the impact they have on the operations and proposed modifications at Compressor Station No. 27.

3.1.1 Classification of Ambient Air Quality

The 1970 Amendments to the CAA gave the USEPA specific authority to establish the minimum level of air quality that all states would be required to achieve. These minimum values or standards were developed in order to protect the public health (primary) and welfare (secondary). The federally promulgated standards and additional state standards are presented on Table 3-1.

Areas of the country that have air quality equal to or better than these standards (i.e., ambient concentrations less than a standard) are designated as "Attainment Areas", while those where monitoring indicates air quality is worse than the standards are known as "Non-attainment Areas." The designation of an area has particular importance for a proposed project as it determines the type of permit review to which the application will be subject.

Major new sources or major modifications to existing major sources located in attainment areas are required to obtain a PSD permit before initiation of construction. Similar sources located in areas designated as non-attainment or that adversely impact such areas undergo more stringent Non-attainment New Source Review (NNSR). In either case, it is necessary, as a first step, to determine the air quality classification of a project site.

All areas of all states are classified as either attainment, non-attainment or unclassifiable for each criteria pollutant. Hillsborough County is designated as unclassifiable or attainment for all criteria pollutants. These designations were obtained from 40 CFR 81.310.

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Table 3-1 National and State Ambient Air Quality Standards ($\mu\text{g}/\text{m}^3$)

POLLUTANT	AVERAGING PERIOD	EPA STANDARDS	
		PRIMARY	SECONDARY
PM ₁₀	24-hour ¹	150	150
	Annual ²	50	50
SO ₂	3-hour ¹	---	1,300
	24-hour ¹	365	---
CO	1-hour ¹	---	40,000
	8-hour ¹	10,000	---
NO ₂	Annual ²	100	100
O ₃	1-hour ³	235	235

1) Not to be exceeded more than once per year.
 2) Never to be exceeded.
 3) Not to be exceeded on more than 3 days over 3 years.

Sources: 40 CFR 50; 36FR22384

The designation of Unclassifiable indicates that there is insufficient monitoring data to prove that the area has attained the federal standards; however, the limited data available indicate that the standard has been achieved. Areas with this classification are treated as attainment areas for permitting purposes.

3.1.2 Prevention of Significant Deterioration (PSD) Applicability

The 1977 CAA Amendments required proposed new major stationary sources or existing sources planning a major modification in an area that has attained the National AAQS, to conduct a preconstruction review that includes a detailed analysis of the impacts from the source's emissions. The Federal air quality permitting regulations for attainment areas are codified in the Code of Federal Regulations (CFR), Title 40- Protection of the Environment, Part 52.21 - Prevention of Significant Deterioration (40 CFR 52.21).

For the PSD regulations to apply to a given project, the proposed location must be in an area that has been classified as attainment or as unclassifiable for a particular pollutant. Hillsborough County is considered an attainment area for all criteria pollutants. Additionally, a project's potential to emit must constitute a major stationary source or major modification to an existing major stationary source.

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A major stationary source is defined as either one of the 28 sources identified in 40 CFR 52.21 that has a potential to emit 100 tons or more per year of any regulated pollutant, or any other stationary source that has the potential to emit 250 tons or more per year of a regulated pollutant. "Potential to emit" is determined on an annual basis after the application of air pollution control equipment, or any other federally enforceable restriction. "Significant" emission rates are defined as amounts equal to or greater than the emission rates given in Table 3-2.

Since Compressor Station No. 27 is not one of the 28 named source categories, and will not emit >250 TPY of any regulated pollutant, it is considered a minor source and therefore a PSD permit is not required.

Table 3-2 Applicability of PSD Significant Emission Rates

Pollutant	Emission Rate Tons/Year
Carbon Monoxide	100
Nitrogen Oxides	40
Sulfur Dioxide	40
Particulate Matter (PM/PM ₁₀)	25/15
Ozone (VOC)	40
Lead	0.6
Fluorides	3
Reduced Sulfur including Hydrogen Sulfide	10
Total Reduced Sulfur including Hydrogen Sulfide	10
Sulfuric Acid Mist	7
Lead	0.6
Mercury	0.1
VOC = Volatile Organic Compounds Sources:40 CFR 52.21(b)(23)	

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3.1.3 Applicability of New Source Performance Standards (NSPS)

The regulation of new sources through the development of standards applicable to a specific category of sources was a significant step taken by the 1970 CAA Amendments. The Administrator was directed to publish a proposed regulation establishing a Standard of Performance for any category of new sources that cause or contribute significantly to air pollution and which may reasonably be anticipated to endanger public health. All Standards apply to all sources within a given category, regardless of geographic location or ambient air quality at the location.

Performance standards are published in 40 CFR 60. The new turbines to be installed at Compressor Station No. 27 are subject to Subpart GG, Standards of Performance for Stationary Gas Turbines, because they will have a maximum heat input at peak load of >10.7 gigajoules/hour (10 MMBtu/hr) based on the lower heating value of the natural gas fuel. This regulation establishes emission limits for NO_x and SO₂ and requires performance testing and daily monitoring of fuel nitrogen and sulfur. The applicable emission standards are provided in Table 3-3.

The NO_x emission limit for Subpart GG is calculated as follows:

$$STD = 0.0150 (14.4/Y) + F$$

$$STD = \text{Allowable NO}_x \text{ emissions}$$

$$Y = \text{Heat rate at peak load not to exceed } 14.4 \text{ Kj/watt-hour}$$

$$F = \text{NO}_x \text{ emission allowance}$$

The fuel bound nitrogen in natural gas is less than 0.015% by weight. Therefore, the value of F as defined in 40 CFR 60.332(3) is equal to zero.

$$Y = \text{Btu/bhp-hr} \times 1.055 \text{ Kj/Btu} \times \text{hp-hr/745.7 watt-hour}$$

$$Y = \text{Btu/bhp-hr} \times 1.055 \text{ Kj/Btu} \times \text{hp-hr/745.7 watt-hour}$$

$$= 8,736 \text{ Btu/bhp-hr} \times 1.055 \text{ Kj/Btu} \times \text{hp-hr/745.7 watt-hour}$$

$$= 12.35 \text{ Kj/watt-hr}$$

$$STD = 0.0150 (14.4/12.35) + 0$$

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= 0.0175 %

= 175 ppm_v

Table 3-3 summarizes the NSPS applicability for the proposed gas engines.

The turbine at this facility will meet the NSPS for NO_x of 175 ppm_v (i.e., manufacturer's estimation of 25 ppm_v), and for SO₂ of 150 ppm_v (estimated for this turbine to be 4 ppm_v).

FGT requests that these turbines also be approved for the custom fuel-monitoring schedule that has been approved for other new and modified turbines in this Phase V Expansion Project.

3.1.4 Good Engineering Practice (GEP) Stack Height analysis

The 1977 CAA Amendments require that the emission limitation required for control of any pollutant not be affected by a stack that exceeds GEP height. Further, no dispersion credit is given during air quality modeling for stacks that exceed GEP. GEP stack height is defined as the highest of:

- 65 meters; or
- a height established by applying the formula

$$HGEP = H + 1.5 L$$

Where:

HGEP = GEP Stack Height,
H = Height of the structure or nearby structure, and
L = Lesser dimension (height or projected width) of the nearby structure; or

- a height demonstrated by fluid modeling or field study.

A structure or terrain feature is considered nearby if a stack is within a distance of five times the structure's height or maximum projected width. Only the smaller value of the height or projected width is used and the distance to the structure cannot be greater than 0.8 kilometers. Although GEP stack height regulations require that the stack height used in modeling for determining compliance with National AAQS and PSD increments not exceed GEP stack height, the actual stack height may be greater.

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Table 3-3 Applicability of New Source Performance Standards for Turbines 2701/02

NSPS Subpart	NSPS Regulations	Equipment	Fuel	Pollutant	Heat Input Applicability	Equipment Design Maximum*	NSPS Emission Limits	Equipment Emissions
GG	60.332(a)(2)	Engine No. 2701/2702 Gas Turbine	Gas	NO ₂	>10 MM Btu/hr	62.95 MMBtu/hr	175 ppm _v	25 ppm _v
GG	60.333(a)	Engine No. 2701/2702 Gas Turbine	Gas	SO ₂	>10 MM Btu/hr	62.95 MMBtu/hr	150 ppm _v	4 ppm _v

Design maximum based on vendor data plus 10%.

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The stack height regulations also increase GEP stack height beyond that resulting from the formula in cases where plume impaction occurs. Plume impaction is defined as concentrations measured or modeled to occur when the plume interacts with elevated terrain. Elevated terrain is defined as terrain that exceeds the height calculated by the GEP stack height formula. Because terrain in the vicinity of the project site is generally flat, plume impaction was not considered in determining the GEP stack height.

The proposed stack at Compressor Station No. 27 will be 61.17 feet (18.64 meters) tall. Based on the proposed building dimensions, the calculated GEP stack height is less than 65 meters; therefore, GEP stack height is 65 meters. Since the stack is less than GEP stack height, it complies with the regulatory requirement.

3.2 Florida State Air Quality Regulations

Rule 62, F.A.C., contains the air quality rules and regulations for the State of Florida. The primary federal regulations that affect Compressor Station No. 27 have been incorporated into or are referenced by these rules. The significant state regulations that are applicable to the new emission units are briefly listed below.

3.2.1 Rule 62-210.300 Permits Required

FGT is required to obtain a construction permit prior to construction of new emission units. This requirement is being met by the submittal of this application.

3.2.2 Rule 62-204.240 Ambient Air Quality Standards

FGT must not violate any of the ambient air quality standards listed under this rule. The proposed new emissions will not violate any air quality standards.

3.2.3 Rule 62-296.320(2) Objectionable Odors

This rule prohibits the discharge of pollutants that will cause or contribute to an objectionable odor. There will be no odors from the proposed changes.

3.2.4 Rule 62-296.320(4)(b)1 General Particulate Emission Limiting Standards.

FGT is prohibited from allowing the new compressor engine to discharge into the atmosphere the emissions of air pollutants, the density of which is equal to or greater than that designated as Number 1 on the Ringelmann Chart (20 percent opacity). The new and modified engines will not violate this standard.

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3.2.5 Rule 62-210.300(3)(a) Exempt Emissions Units and/or Activities.

The emissions from the fugitive leak emissions are insignificant sources and are exempt from the permitting requirements of Chapter 62-210 Stationary Sources - General Requirements, 62-213 Operation Permits For Major Sources Of Air Pollution and 62-4 Permits.

4.0 REFERENCES

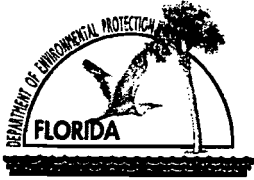
Gas Research institute, 1999. GRI-HAPCalc Software Version 3.0, Radian International, LLC.

U.S. Environmental Protection Agency (USEPA). 1980. PSD Workshop Manual. Research Triangle Park, NC.

U.S. Environmental Protection Agency (USEPA). 2000. Compilation of Air Pollutant Emission Factors, Volume I: Stationary Point and Area Sources (5th Ed.) AP-42. Supplement E, Research Triangle Park, NC.

Attachment A

DEP Forms



Department of Environmental Protection

Division of Air Resources Management

APPLICATION FOR AIR PERMIT - NON-TITLE V SOURCE

See Instructions for Form No. 62-210.900(3)

I. APPLICATION INFORMATION

Identification of Facility

1. Facility Owner/Company Name: Florida Gas Transmission Company	
2. Site Name: Compressor Station No. 27	
3. Facility Identification Number: <input checked="" type="checkbox"/> Unknown	
4. Facility Location: Street Address or Other Locator: On CR 579 approximately 2 miles south of U.S. 301	
5. Relocatable Facility? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6. Existing Permitted Facility? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Application Contact

1. Name and Title of Application Contact: Jim Thompson, Environmental Project Manager for Florida Gas Transmission Co. – Phase V Expansion Project	
2. Application Contact Mailing Address: Organization/Firm: Florida Gas Transmission Company Street Address: 111 Kelsey Lane, Ste. A City: Tampa State: FL Zip Code: 33619	
3. Application Contact Telephone Numbers: Telephone: (800) 381-1477 Fax: (813) 655-3951	

Application Processing Information (DEP Use)

1. Date of Receipt of Application:	1-28-02
2. Permit Number:	0571279-001-AC

Purpose of Application

Air Operation Permit Application

This Application for Air Permit is submitted to obtain: (Check one)

- Initial non-Title V air operation permit for one or more existing, but previously unpermitted, emissions units.
- Initial non-Title V air operation permit for one or more newly constructed or modified emissions units.

Current construction permit number: _____

- Non-Title V air operation permit revision to address one or more newly constructed or modified emissions units.

Current construction permit number: _____

Operation permit number to be revised: _____

- Initial non-Title V air operation permit under Rule 62-210.300(2)(b), F.A.C., for an existing facility seeking classification as a synthetic non-Title V source.

Current operation/construction permit number(s):

- Non-Title V air operation permit revision for a synthetic non-Title V source. Give reason for revision; e.g., to address one or more newly constructed or modified emissions units.

Operation permit number to be revised: _____

Reason for revision: _____

Air Construction Permit Application

This Application for Air Permit is submitted to obtain: (Check one)

- Air construction permit to construct or modify one or more emissions units.
- Air construction permit to make federally enforceable an assumed restriction on the potential emissions of one or more existing, permitted emissions units.
- Air construction permit for one or more existing, but unpermitted, emissions units.

Owner/Authorized Representative

1. Name and Title of Owner/Authorized Representative or Responsible Official: Rick Craig, Vice President, Southeastern Operations
2. Owner/Authorized Representative or Responsible Official Mailing Address: Organization/Firm: Florida Gas Transmission Company Street Address: P.O. Box 1188 City: Houston State: TX Zip Code: 77251
3. Owner/Authorized Representative or Responsible Official Telephone Numbers: Telephone: (713) 646-7227 - Fax: (713) 646-6128
4. Owner/Authorized Representative Statement: <i>I, the undersigned, am the owner or authorized representative* of the facility addressed in this application. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof. I understand that a permit, if granted by the Department, cannot be transferred without authorization from the Department, and I will promptly notify the Department upon sale or legal transfer of any permitted emissions unit.</i> Signature: <u><i>Rick Craig</i></u> Date: <u>1-11-02</u>

* Attach letter of authorization if not currently on file.

Professional Engineer Certification

1. Professional Engineer Name: Kevin McGlynn Registration Number: 50908
2. Professional Engineer Mailing Address: Organization/Firm: McGlynn Consulting Company Street Address: 1967 Commonwealth Lane City: Tallahassee State: FL Zip Code: 32303
3. Professional Engineer Telephone Numbers: Telephone: (850)380-5035 Fax: (850) 350-5002

4. Professional Engineer Statement:

I, the undersigned, hereby certify, except as particularly noted herein, that:*

(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this Application for Air Permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and

(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.

If the purpose of this application is to obtain an air construction permit for one or more proposed new or modified emissions units (check here [X], if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.

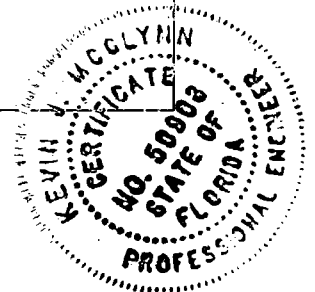
If the purpose of this application is to obtain an initial air operation permit or operation permit revision for one or more newly constructed or modified emissions units (check here [], if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions unit has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.

Kevin J. McClynn, P.E.
Signature _____
50908

January 8, 2002
Date _____

(seal)

* Attach any exception to certification statement.



Scope of Application

Emissions Unit ID	Description of Emissions Unit	Permit Type	Processing Fee
	Cooper-Rolls 501-KC7 DLE Turbine rated at 7,200 bhp, Engine 2701	AC1C	\$4,500.00
	Cooper-Rolls 501-KC7 DLE Turbine rated at 7,200 bhp, Engine 2702		
	New Emergency generator, 585 bhp Waukesha H24GL Reciprocating engine, engine GEN01		
	New fugitive emissions from equipment leaks		
	4200 gallon Oily Water Tank		
	4200 gallon Pipeline Condensate Tank		

Application Processing Fee

Check one: Attached - Amount: \$ 4,500.00 Not Applicable

Construction/Modification Information

1. Description of Proposed Project or Alterations:

Construction of a new gas pipeline compressor station.

Installation of two new gas-fired Rolls Royce model 501-KC7 DLE turbine compressor engines rated at 7,200 horsepower each.

Installation of a natural gas-fired Waukesha Model model H24GL emergency generator rated at 440 kW (585 hp) Waukesha Model H24GL.

Installation of a 4200 gallon tank for oily water storage and a 4200 gallon pipeline condensate storage tank.

2. Projected or Actual Date of Commencement of Construction: 06/01/02

3. Projected Date of Completion of Construction: 09/01/02

Application Comment

This proposed new facility is part of FGT's Phase V expansion project, aimed at increasing the supply capacity of FGT's network servicing domestic, commercial, and industrial customers in Florida.

II. FACILITY INFORMATION

A. GENERAL FACILITY INFORMATION

Facility Location and Type

1. Facility UTM Coordinates: Zone: 17 East (km): 372.157 North (km): 3102.414			
2. Facility Latitude/Longitude: Latitude (DD/MM/SS): 28/02/34 Longitude (DD/MM/SS): 82/18/02			
3. Governmental Facility Code: 0	4. Facility Status Code: C	5. Facility Major Group SIC Code: 49	6. Facility SIC(s): 4922
7. Facility Comment (limit to 500 characters): Compressor Station No. 27 will be a natural gas pipeline compressor station with two turbine compressor engines. It will be classified as a minor source under New Source Review and Title V definitions.			

Facility Contact

1. Name and Title of Application Contact: Jim Thompson, Environmental Project Manager for Florida Gas Transmission Co. – Phase V Expansion Project			
2. Application Contact Mailing Address: Organization/Firm: Florida Gas Transmission Company Street Address: 111 Kelsey Lane, Ste. A City: Tampa State: FL Zip Code: 33619			
3. Application Contact Telephone Numbers: Telephone: (800) 381-1477 Fax: (813) 655-3951			

Facility Regulatory Classifications

Check all that apply:

1. <input type="checkbox"/> Small Business Stationary Source?	<input type="checkbox"/> Unknown
2. <input type="checkbox"/> Synthetic Non-Title V Source?	
3. <input type="checkbox"/> Synthetic Minor Source of Pollutants Other than HAPs?	
4. <input type="checkbox"/> Synthetic Minor Source of HAPs?	
5. <input checked="" type="checkbox"/> One or More Emissions Units Subject to NSPS?	
6. <input type="checkbox"/> One or More Emission Units Subject to NESHAP Recordkeeping or Reporting?	
7. Facility Regulatory Classifications Comment (limit to 200 characters): Facility is a minor source for PSD and Title V purposes. The project is not subject to PSD since the emissions are less than the levels for a major source.	

Rule Applicability Analysis

FDEP Title V Core List 62-296.320(4)(b)1 General Visible Emissions Standards 40 CFR 60, Subpart GG Standards of Performance for Stationary Gas-fired Turbines

B. FACILITY POLLUTANTS

List of Pollutants Emitted

1. Pollutant Emitted	2. Pollutant Classif.	3. Requested Emissions Cap		4. Basis for Emissions Cap	5. Pollutant Comment
		lb/hour	tons/year		
NO _x	B				
CO	B				
VOC	B				
SO ₂	B				
PM	B				

C. FACILITY SUPPLEMENTAL INFORMATION

Supplemental Requirements

1. Area Map Showing Facility Location: [X] Attached, Document ID: <i>Narrative Fig 1-1</i> [] Not Applicable [] Waiver Requested
2. Facility Plot Plan: [X] Attached, Document ID: <i>_Att. B</i> [] Not Applicable [] Waiver Requested
3. Process Flow Diagram(s): [] Attached, Document ID: _____ [X] Not Applicable [X] Waiver Requested
4. Precautions to Prevent Emissions of Unconfined Particulate Matter: [] Attached, Document ID: _____ [X] Not Applicable [] Waiver Requested
5. Supplemental Information for Construction Permit Application: [X] Attached, Document ID: <i>Attach. C</i> [] Not Applicable
6. Supplemental Requirements Comment:

III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through G as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application.

A. GENERAL EMISSIONS UNIT INFORMATION

Emissions Unit Description and Status

<p>1. Type of Emissions Unit Addressed in This Section: (Check one)</p> <p><input checked="" type="checkbox"/> This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).</p> <p><input type="checkbox"/> This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.</p> <p><input type="checkbox"/> This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.</p>		
<p>2. Description of Emissions Unit Addressed in This Section (limit to 60 characters):</p> <p>7,200 bhp natural gas fired turbine compressor unit, Engine 2701</p>		
<p>3. Emissions Unit Identification Number: ID:</p>		<p><input checked="" type="checkbox"/> No ID <input type="checkbox"/> ID Unknown</p>
<p>4. Emissions Unit Status Code: C</p>	<p>5. Initial Startup Date: 09/01/02</p>	<p>6. Emissions Unit Major Group SIC Code: 49</p>
<p>7. Emissions Unit Comment: (Limit to 500 Characters)</p> <p>The proposed turbine engines will be Cooper-Rolls Royce 501-KC7 DLE engine compressor units ISO rated at 7,200 bhp and site rated at 7,200 bhp. Fuel will be exclusively natural gas from the FGT's gas pipeline. The proposed engines will incorporate dry, low NO_x combustion technology.</p>		

Emissions Unit Control Equipment

1. Control Equipment/Method Description (limit to 200 characters per device or method):	
NA	
2. Control Device or Method Code(s):	NA

Emissions Unit Details

1. Package Unit:	
Manufacturer: Cooper-Rolls Royce	Model Number: 501-KC7 DLE
2. Generator Nameplate Rating:	MW
3. Incinerator Information:	
Dwell Temperature:	°F
Dwell Time:	seconds
Incinerator Afterburner Temperature:	°F

Emissions Unit Operating Capacity and Schedule

1. Maximum Heat Input Rate:	62.95 mmBtu/hr
2. Maximum Incineration Rate:	lb/hr tons/day
3. Maximum Process or Throughput Rate:	
4. Maximum Production Rate:	
5. Requested Maximum Operating Schedule:	
24 hours/day	7 days/week
52 weeks/year	8760 hours/year
6. Operating Capacity/Schedule Comment (limit to 200 characters):	
Heat input is 62.95 MM Btu/hr based on vendor specifications of 7,942 Btu/Bhp-hr plus 10% and 7,200 bhp.	

B. EMISSION POINT (STACK/VENT) INFORMATION

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram? 2701		2. Emission Point Type Code: 1	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point): NA			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: NA			
5. Discharge Type Code: V	6. Stack Height: 61.17 feet	7. Exit Diameter: 88" x 66"	
8. Exit Temperature: 958 °F	9. Actual Volumetric Flow Rate: 98,206 acfm	10. Water Vapor: %	
11. Maximum Dry Standard Flow Rate: dscfm		12. Nonstack Emission Point Height: feet	
13. Emission Point UTM Coordinates: Zone: 17 East (km): 372.157 North (km): 3102.414			
14. Emission Point Comment (limit to 200 characters): 40 CFR 60 Appendix A Method 1: Equivalent diameter (D_e) = $2WL / W + L$ = $(2 \times 7.333' \times 5.5') / (7.333' + 5.5')$ = $80.663 / 12.833 = 6.28'$			

C. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment of

1. Segment Description (Process/Fuel Type) (limit to 500 characters): Natural gas fired reciprocating engine driving a natural gas compressor, operating full time.		
2. Source Classification Code (SCC): 2-02-002-01		3. SCC Units: million cubic feet burned
4. Maximum Hourly Rate: 0.0605	5. Maximum Annual Rate: 530	6. Estimated Annual Activity Factor: NA
7. Maximum % Sulfur: 0.03	8. Maximum % Ash: NA	9. Million Btu per SCC Unit: 1040
10. Segment Comment (limit to 200 characters): Based on heat input of 62.95 MMBtu/hr and fuel heat value of 1040 Btu/scf. Percent sulfur is base on maximum Federal Energy Regulatory Commission (FERC) limit of 10 gr S/100 scf and gas density of 0.0455 lb/scf.		

Segment Description and Rate: Segment NA of

1. Segment Description (Process/Fuel Type) (limit to 500 characters): 		
2. Source Classification Code (SCC):		3. SCC Units:
4. Maximum Hourly Rate:	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment (limit to 200 characters): 		

D. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION

Potential Emissions

1. Pollutant Emitted: NOX		2. Pollutant Regulatory Code: EL	
3. Primary Control Device Code:	4. Secondary Control Device Code: NA	5. Total Percent Efficiency of Control:	
6. Potential Emissions: 5.7 lb/hour 25.0 tons/year		7. Synthetically Limited? []	
8. Emission Factor: 5.7 lb/hr Reference: Vendor's data		9. Emissions Method Code: 5	
10. Calculation of Emissions (limit to 600 characters): (5.7 lb/hr)(1 ton/2000 lb)(8760 hr/1 yr) = 24.97 tons/year			
11. Pollutant Potential Emissions Comment (limit to 200 characters): Based on vendor's data. See Attachment C.			

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions: NA
3. Requested Allowable Emissions and Units: 25 ppmv	4. Equivalent Allowable Emissions: 5.7 lb/hour 25.0 tons/year
5. Method of Compliance (limit to 60 characters): Initial performance test.	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): 40 CFR 60.332(a)(2) limits NOX emissions to 175 ppmv.	

D. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION**Potential Emissions**

1. Pollutant Emitted: SO ₂		2. Pollutant Regulatory Code: EL	
3. Primary Control Device Code: NA	4. Secondary Control Device Code: NA	5. Total Percent Efficiency of Control:	
6. Potential Emissions: 1.73 lb/hour 7.6 tons/year		7. Synthetically Limited? []	
8. Emission Factor: 10 gr/100scf Reference: Vendor's fuel use data		9. Emissions Method Code: 2	
10. Calculation of Emissions (limit to 600 characters): $(10 \text{ gr S}/100 \text{ scf})(0.0605 \text{ MMscf/hr})(1 \text{ lb}/7000 \text{ gr}) = 0.86 \text{ lb S/hr}$ $(0.86 \text{ lb S/hr})(2 \text{ lb SO}_2/\text{lb S}) = 1.73 \text{ lb SO}_2/\text{hr}$ $(1.73 \text{ lb SO}_2/\text{hr})(8760 \text{ hr/yr})(1 \text{ ton}/2000 \text{ lb}) = 7.58 \text{ ton/yr}$			
11. Pollutant Potential Emissions Comment (limit to 200 characters): SO ₂ emission factor is based on maximum Federal Energy Regulatory Commission (FERC) limit of 10 gr S/100 scf and gas density of 0.0455 lb/scf.			

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: RULE	2. Future Effective Date of Allowable Emissions: NA
3. Requested Allowable Emissions and Units: 10 gr/100 cf	4. Equivalent Allowable Emissions: 1.73 lb/hour 7.6 tons/year
5. Method of Compliance (limit to 60 characters): Initial performance test and fuel monitoring.	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): 40 CFR 60.333 limits SO ₂ emissions to 150 ppmv.	

D. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION

Potential Emissions

1. Pollutant Emitted: CO		2. Pollutant Regulatory Code: NS	
3. Primary Control Device Code: NA	4. Secondary Control Device Code: NA	5. Total Percent Efficiency of Control:	
6. Potential Emissions: 6.96 lb/hour 30.5 tons/year		7. Synthetically Limited? []	
8. Emission Factor: 6.96 lb/hr Reference: Vendor's data		9. Emissions Method Code: 5	
10. Calculation of Emissions (limit to 600 characters): (6.96 lb/hr)(1 ton/2000 lb)(8760 hr/1 yr) = 30.48 tons/year			
11. Pollutant Potential Emissions Comment (limit to 200 characters): Based on vendor's data. See Attachment C.			

Allowable Emissions Allowable Emissions NA of

1. Basis for Allowable Emissions Code: NA	2. Future Effective Date of Allowable Emissions: NA
3. Requested Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance (limit to 60 characters):	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):	

D. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION

Potential Emissions

1. Pollutant Emitted: VOC		2. Pollutant Regulatory Code: NS	
3. Primary Control Device Code: NA	4. Secondary Control Device Code: NA	5. Total Percent Efficiency of Control:	
6. Potential Emissions: 1.49 lb/hour 6.5 tons/year		7. Synthetically Limited? []	
8. Emission Factor: 1.49 lb/hr Reference: Vendor's data		9. Emissions Method Code: 5	
10. Calculation of Emissions (limit to 600 characters): (1.49 lb/hr)(1 ton/2000 lb)(8760 hr/1 yr) = 6.53 tons/year			
11. Pollutant Potential Emissions Comment (limit to 200 characters): Based on vendor's data. See Attachment C.			

Allowable Emissions Allowable Emissions NA of

1. Basis for Allowable Emissions Code: NA	2. Future Effective Date of Allowable Emissions: NA
3. Requested Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance (limit to 60 characters):	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):	

D. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION

Potential Emissions

1. Pollutant Emitted: SO2		2. Pollutant Regulatory Code: EL	
3. Primary Control Device Code: NA	4. Secondary Control Device Code: NA	5. Total Percent Efficiency of Control:	
6. Potential Emissions: 1.73 lb/hour 7.6 tons/year		7. Synthetically Limited? []	
8. Emission Factor: 10 gr/100scf Reference: Vendor's fuel use data		9. Emissions Method Code: 2	
10. Calculation of Emissions (limit to 600 characters): $(10 \text{ gr S}/100 \text{ scf})(0.0605 \text{ MMscf/hr})(1 \text{ lb}/7000 \text{ gr}) = 0.86 \text{ lb S/hr}$ $(0.86 \text{ lb S/hr})(2 \text{ lb SO}_2/\text{lb S}) = 1.73 \text{ lb SO}_2/\text{hr}$ $(1.73 \text{ lb SO}_2/\text{hr})(8760 \text{ hr/yr})(1 \text{ ton}/2000 \text{ lb}) = 7.58 \text{ ton/yr}$			
11. Pollutant Potential Emissions Comment (limit to 200 characters): SO2 emission factor is based on maximum Federal Energy Regulatory Commission (FERC) limit of 10 gr S/100 scf and gas density of 0.0455 lb/scf.			

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: RULE	2. Future Effective Date of Allowable Emissions: NA
3. Requested Allowable Emissions and Units: 10 gr/100 cf	4. Equivalent Allowable Emissions: 1.73 lb/hour 7.6 tons/year
5. Method of Compliance (limit to 60 characters): Initial performance test and fuel monitoring.	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): 40 CFR 60.333(a) limits SO2 emissions to 150 ppmv.	

D. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION

Potential Emissions

1. Pollutant Emitted: PM		2. Pollutant Regulatory Code: NS	
3. Primary Control Device Code: NA	4. Secondary Control Device Code: NA	5. Total Percent Efficiency of Control:	
6. Potential Emissions: 0.42 lb/hour 1.8 tons/year		7. Synthetically Limited? []	
8. Emission Factor: 0.0066 lb/MMBtu Reference: AP-42 Table 3.1-2a, 4/00		9. Emissions Method Code: 4	
10. Calculation of Emissions (limit to 600 characters): (0.0066 lb/MM Btu)(62.95 MM Btu/hr) = 0.42 lb/hr (0.42 lb/hr)(8760 hr/yr)(1 ton/2000 lb) = 1.82 ton/yr			
11. Pollutant Potential Emissions Comment (limit to 200 characters): Based on vendor's fuel use data plus 10%.			

Allowable Emissions Allowable Emissions NA of

1. Basis for Allowable Emissions Code: NA	2. Future Effective Date of Allowable Emissions: NA
3. Requested Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance (limit to 60 characters):	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):	

D. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION

Potential Emissions

1. Pollutant Emitted: HAPs		2. Pollutant Regulatory Code: NS	
3. Primary Control Device Code: NA	4. Secondary Control Device Code: NA	5. Total Percent Efficiency of Control:	
6. Potential Emissions: 0.345 lb/hour 1.5 tons/year		7. Synthetically Limited? []	
8. Emission Factor: 0.0217 g/bhp-hr Reference: GRI-HAPCalc 3.1		9. Emissions Method Code: 4	
10. Calculation of Emissions (limit to 600 characters): $(0.0217\text{g/hp-hr})(7,200\text{ hp})(1\text{ lb}/453.6\text{ g}) = 0.345\text{ lb/hr}$ $(0.345\text{lb/hr})(8760\text{ hr/yr})(1\text{ ton}/2000\text{ lb}) = 1.51\text{ ton/yr}$			
11. Pollutant Potential Emissions Comment (limit to 200 characters): Detailed calculations provided in Attachment D. HAP emissions are also included in VOC emissions.			

Allowable Emissions Allowable Emissions NA of

1. Basis for Allowable Emissions Code: NA	2. Future Effective Date of Allowable Emissions: NA
3. Requested Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance (limit to 60 characters):	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):	

G. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

Supplemental Requirements

1. Process Flow Diagram <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable <input checked="" type="checkbox"/> Waiver Requested
2. Fuel Analysis or Specification <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable <input checked="" type="checkbox"/> Waiver Requested
3. Detailed Description of Control Equipment <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
4. Description of Stack Sampling Facilities <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable <input checked="" type="checkbox"/> Waiver Requested
5. Compliance Test Report <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously submitted, Date: _____ <input checked="" type="checkbox"/> Not Applicable
6. Procedures for Startup and Shutdown <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
7. Operation and Maintenance Plan <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
8. Supplemental Information for Construction Permit Application <input checked="" type="checkbox"/> Attached, Document ID: <u>Narrative</u> _____ <input type="checkbox"/> Not Applicable
9. Other Information Required by Rule or Statute <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
10. Supplemental Requirements Comment: Supplemental information is provided in the narrative description accompanying these forms.

III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through G as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application.

A. GENERAL EMISSIONS UNIT INFORMATION

Emissions Unit Description and Status

<p>1. Type of Emissions Unit Addressed in This Section: (Check one)</p> <p><input checked="" type="checkbox"/> This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).</p> <p><input type="checkbox"/> This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.</p> <p><input type="checkbox"/> This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.</p>		
<p>2. Description of Emissions Unit Addressed in This Section (limit to 60 characters):</p> <p>7,200 bhp natural gas fired turbine compressor unit, Engine 2702</p>		
<p>3. Emissions Unit Identification Number: ID:</p>		<p><input checked="" type="checkbox"/> No ID <input type="checkbox"/> ID Unknown</p>
<p>4. Emissions Unit Status Code: C</p>	<p>5. Initial Startup Date: 09/01/02</p>	<p>6. Emissions Unit Major Group SIC Code: 49</p>
<p>7. Emissions Unit Comment: (Limit to 500 Characters)</p> <p>The proposed turbine engines will be Cooper-Rolls Royce 501-KC7 DLE engine compressor units ISO rated at 7,200 bhp and site rated at 7,200 bhp. Fuel will be exclusively natural gas from the FGT's gas pipeline. The proposed engines will incorporate dry, low NO_x combustion technology.</p>		

Emissions Unit Control Equipment

1. Control Equipment/Method Description (limit to 200 characters per device or method):	
NA	
2. Control Device or Method Code(s):	NA

Emissions Unit Details

1. Package Unit:	
Manufacturer: Cooper-Rolls Royce	Model Number: 501-KC7 DLE
2. Generator Nameplate Rating:	MW
3. Incinerator Information:	
Dwell Temperature:	°F
Dwell Time:	seconds
Incinerator Afterburner Temperature:	°F

Emissions Unit Operating Capacity and Schedule

1. Maximum Heat Input Rate:	62.95 mmBtu/hr
2. Maximum Incineration Rate:	lb/hr tons/day
3. Maximum Process or Throughput Rate:	
4. Maximum Production Rate:	
5. Requested Maximum Operating Schedule:	
24 hours/day	7 days/week
52 weeks/year	8760 hours/year
6. Operating Capacity/Schedule Comment (limit to 200 characters):	
Heat input is 62.95 MM Btu/hr based on vendor specifications of 7,942 Btu/Bhp-hr plus 10% and 7,200 bhp.	

B. EMISSION POINT (STACK/VENT) INFORMATION

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram? 2702		2. Emission Point Type Code: 1	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point): NA			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: NA			
5. Discharge Type Code: V	6. Stack Height: 61.17 feet	7. Exit Diameter: 88" x 66"	
8. Exit Temperature: 958 °F	9. Actual Volumetric Flow Rate: 98,206 acfm	10. Water Vapor: %	
11. Maximum Dry Standard Flow Rate: dscfm		12. Nonstack Emission Point Height: feet	
13. Emission Point UTM Coordinates: Zone: 17 East (km): 372.157 North (km): 3102.414			
14. Emission Point Comment (limit to 200 characters): 40 CFR 60 Appendix A Method 1: Equivalent diameter (D_e) = $2WL / W + L$ = $(2 \times 7.333' \times 5.5') / (7.333' + 5.5')$ = $80.663 / 12.833 = 6.28'$			

C. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment _____ of _____

1. Segment Description (Process/Fuel Type) (limit to 500 characters): Natural gas fired turbine engine driving a natural gas compressor, operating full time.		
2. Source Classification Code (SCC): 2-02-002-01	3. SCC Units: million cubic feet burned	
4. Maximum Hourly Rate: 0.0605	5. Maximum Annual Rate: 530	6. Estimated Annual Activity Factor: NA
7. Maximum % Sulfur: 0.03	8. Maximum % Ash: NA	9. Million Btu per SCC Unit: 1040
10. Segment Comment (limit to 200 characters): Based on heat rate of 62.95 MMBtu/hr. Percent sulfur is base on maximum Federal Energy Regulatory Commission (FERC) limit of 10 gr S/100 scf and gas density of 0.0455 lb/scf.		

Segment Description and Rate: Segment NA of _____

1. Segment Description (Process/Fuel Type) (limit to 500 characters):		
2. Source Classification Code (SCC):	3. SCC Units:	
4. Maximum Hourly Rate:	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment (limit to 200 characters):		

D. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION

Potential Emissions

1. Pollutant Emitted: NOX		2. Pollutant Regulatory Code: EL	
3. Primary Control Device Code:	4. Secondary Control Device Code: NA	5. Total Percent Efficiency of Control:	
6. Potential Emissions: 5.7 lb/hour 25.0 tons/year		7. Synthetically Limited? []	
8. Emission Factor: 5.7 lb/hr Reference: Vendor's data		9. Emissions Method Code: 5	
10. Calculation of Emissions (limit to 600 characters): (5.7 lb/hr)(1 ton/2000 lb)(8760 hr/1 yr) = 24.97 tons/year			
11. Pollutant Potential Emissions Comment (limit to 200 characters): Based on vendor's data. See Attachment C.			

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions: NA
3. Requested Allowable Emissions and Units: 25 ppmv	4. Equivalent Allowable Emissions: 5.7 lb/hour 25.0 tons/year
5. Method of Compliance (limit to 60 characters): Initial performance test.	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): 40 CFR 60.332(a)(2) limits NOX emissions to 175 ppmv.	

D. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION

Potential Emissions

1. Pollutant Emitted: CO		2. Pollutant Regulatory Code: NS	
3. Primary Control Device Code: NA	4. Secondary Control Device Code: NA	5. Total Percent Efficiency of Control:	
6. Potential Emissions: 6.96 lb/hour 30.5 tons/year		7. Synthetically Limited? []	
8. Emission Factor: 6.96 lb/hr Reference: Vendor's data		9. Emissions Method Code: 5	
10. Calculation of Emissions (limit to 600 characters): (6.96 lb/hr)(1 ton/2000 lb)(8760 hr/1 yr) = 30.48 tons/year			
11. Pollutant Potential Emissions Comment (limit to 200 characters): Based on vendor's data. See Attachment C.			

Allowable Emissions Allowable Emissions NA of

1. Basis for Allowable Emissions Code: NA	2. Future Effective Date of Allowable Emissions: NA
3. Requested Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance (limit to 60 characters):	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):	

D. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION

Potential Emissions

1. Pollutant Emitted: VOC		2. Pollutant Regulatory Code: NS	
3. Primary Control Device Code: NA	4. Secondary Control Device Code: NA	5. Total Percent Efficiency of Control:	
6. Potential Emissions: 1.49 lb/hour 6.5 tons/year		7. Synthetically Limited? []	
8. Emission Factor: 1.49 lb/hr Reference: Vendor's data		9. Emissions Method Code: 5	
10. Calculation of Emissions (limit to 600 characters): (1.49 lb/hr)(1 ton/2000 lb)(8760 hr/1 yr) = 6.53 tons/year			
11. Pollutant Potential Emissions Comment (limit to 200 characters): Based on vendor's data. See Attachment C.			

Allowable Emissions Allowable Emissions NA of

1. Basis for Allowable Emissions Code: NA	2. Future Effective Date of Allowable Emissions: NA
3. Requested Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance (limit to 60 characters):	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):	

D. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION

Potential Emissions

1. Pollutant Emitted: SO2		2. Pollutant Regulatory Code: EL	
3. Primary Control Device Code: NA	4. Secondary Control Device Code: NA	5. Total Percent Efficiency of Control:	
6. Potential Emissions: 1.73 lb/hour 7.6 tons/year		7. Synthetically Limited? []	
8. Emission Factor: 10 gr/100scf Reference: Vendor's fuel use data		9. Emissions Method Code: 2	
10. Calculation of Emissions (limit to 600 characters): $(10 \text{ gr S}/100 \text{ scf})(0.0605 \text{ MMscf/hr})(1 \text{ lb}/7000 \text{ gr}) = 0.86 \text{ lb S/hr}$ $(0.86 \text{ lb S/hr})(2 \text{ lb SO}_2/\text{lb S}) = 1.73 \text{ lb SO}_2/\text{hr}$ $(1.73 \text{ lb SO}_2/\text{hr})(8760 \text{ hr/yr})(1 \text{ ton}/2000 \text{ lb}) = 7.58 \text{ ton/yr}$			
11. Pollutant Potential Emissions Comment (limit to 200 characters): SO2 emission factor is based on maximum Federal Energy Regulatory Commission (FERC) limit of 10 gr S/100 scf and gas density of 0.0455 lb/scf.			

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: RULE	2. Future Effective Date of Allowable Emissions: NA
3. Requested Allowable Emissions and Units: 10 gr/100 cf	4. Equivalent Allowable Emissions: 1.73 lb/hour 7.6 tons/year
5. Method of Compliance (limit to 60 characters): Initial performance test and fuel monitoring.	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): 40 CFR 60.333 limits SO2 emissions to 150 ppmv.	

D. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION

Potential Emissions

1. Pollutant Emitted: SO2		2. Pollutant Regulatory Code: EL	
3. Primary Control Device Code: NA	4. Secondary Control Device Code: NA	5. Total Percent Efficiency of Control:	
6. Potential Emissions: 1.73 lb/hour 7.6 tons/year		7. Synthetically Limited? []	
8. Emission Factor: 10 gr/100scf Reference: Vendor's fuel use data		9. Emissions Method Code: 2	
10. Calculation of Emissions (limit to 600 characters): $(10 \text{ gr S}/100 \text{ scf})(0.0605 \text{ MMscf/hr})(1 \text{ lb}/7000 \text{ gr}) = 0.86 \text{ lb S/hr}$ $(0.86 \text{ lb S/hr})(2 \text{ lb SO}_2/\text{lb S}) = 1.73 \text{ lb SO}_2/\text{hr}$ $(1.73 \text{ lb SO}_2/\text{hr})(8760 \text{ hr/yr})(1 \text{ ton}/2000 \text{ lb}) = 7.58 \text{ ton/yr}$			
11. Pollutant Potential Emissions Comment (limit to 200 characters): SO2 emission factor is based on maximum Federal Energy Regulatory Commission (FERC) limit of 10 gr S/100 scf and gas density of 0.0455 lb/scf.			

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: RULE	2. Future Effective Date of Allowable Emissions: NA
3. Requested Allowable Emissions and Units: 10 gr/100 cf	4. Equivalent Allowable Emissions: 1.73 lb/hour 7.6 tons/year
5. Method of Compliance (limit to 60 characters): Initial performance test and fuel monitoring.	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): 40 CFR 60.333(a) limits SO2 emissions to 150 ppmv.	

D. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION

Potential Emissions

1. Pollutant Emitted: PM		2. Pollutant Regulatory Code: NS	
3. Primary Control Device Code: NA	4. Secondary Control Device Code: NA	5. Total Percent Efficiency of Control:	
6. Potential Emissions: 0.42 lb/hour 1.8 tons/year		7. Synthetically Limited? []	
8. Emission Factor: 0.0066 lb/MMBtu Reference: AP-42 Table 3.1-2a, 4/00		9. Emissions Method Code: 4	
10. Calculation of Emissions (limit to 600 characters): (0.0066 lb/MM Btu)(62.95 MM Btu/hr) = 0.42 lb/hr (0.42 lb/hr)(8760 hr/yr)(1 ton/2000 lb) = 1.82 ton/yr			
11. Pollutant Potential Emissions Comment (limit to 200 characters): Based on vendor's fuel use data plus 10%.			

Allowable Emissions Allowable Emissions NA of

1. Basis for Allowable Emissions Code: NA	2. Future Effective Date of Allowable Emissions: NA
3. Requested Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance (limit to 60 characters):	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):	

D. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION

Potential Emissions

1. Pollutant Emitted: HAPs		2. Pollutant Regulatory Code: NS	
3. Primary Control Device Code: NA	4. Secondary Control Device Code: NA	5. Total Percent Efficiency of Control:	
6. Potential Emissions: 0.345 lb/hour 1.5 tons/year		7. Synthetically Limited? []	
8. Emission Factor: 0.0217 g/bhp-hr Reference: GRI-HAPCalc 3.1		9. Emissions Method Code: 4	
10. Calculation of Emissions (limit to 600 characters): (0.0217g/hp-hr)(7,200 hp)(1 lb/453.6 g) = 0.345 lb/hr (0.345/lb/hr)(8760 hr/yr)(1 ton/2000 lb) = 1.51 ton/yr			
11. Pollutant Potential Emissions Comment (limit to 200 characters): Detailed calculations provided in Attachment D. HAP emissions are also included in VOC emissions.			

Allowable Emissions Allowable Emissions NA of

1. Basis for Allowable Emissions Code: NA	2. Future Effective Date of Allowable Emissions: NA
3. Requested Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance (limit to 60 characters):	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):	

G. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

Supplemental Requirements

1. Process Flow Diagram <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable <input checked="" type="checkbox"/> Waiver Requested
2. Fuel Analysis or Specification <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable <input checked="" type="checkbox"/> Waiver Requested
3. Detailed Description of Control Equipment <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
4. Description of Stack Sampling Facilities <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable <input checked="" type="checkbox"/> Waiver Requested
5. Compliance Test Report <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously submitted, Date: _____ <input checked="" type="checkbox"/> Not Applicable
6. Procedures for Startup and Shutdown <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
7. Operation and Maintenance Plan <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
8. Supplemental Information for Construction Permit Application <input checked="" type="checkbox"/> Attached, Document ID: <u>Narrative</u> _____ <input type="checkbox"/> Not Applicable
9. Other Information Required by Rule or Statute <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
10. Supplemental Requirements Comment: Supplemental information is provided in the narrative description accompanying these forms.

III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through G as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application.

A. GENERAL EMISSIONS UNIT INFORMATION

Emissions Unit Description and Status

<p>1. Type of Emissions Unit Addressed in This Section: (Check one)</p> <p><input checked="" type="checkbox"/> This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).</p> <p><input type="checkbox"/> This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.</p> <p><input type="checkbox"/> This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.</p>		
<p>2. Description of Emissions Unit Addressed in This Section (limit to 60 characters):</p> <p>Emergency generator Waukesha Model H24GL rated at 585 bhp, 440 kW</p>		
<p>3. Emissions Unit Identification Number: ID:</p>		<p><input checked="" type="checkbox"/> No ID <input type="checkbox"/> ID Unknown</p>
<p>4. Emissions Unit Status Code: C</p>	<p>5. Initial Startup Date: 09/01/02</p>	<p>6. Emissions Unit Major Group SIC Code: 49</p>
<p>7. Emissions Unit Comment: (Limit to 500 Characters)</p> <p>The proposed generator engine will be a Waukesha Model H24GL reciprocating engine rated at 440 kW (585 bhp). Fuel will be exclusively natural gas from the FGT's gas pipeline. The unit will be operated no more than 500 hours per year.</p>		

Emissions Unit Control Equipment

1. Control Equipment/Method Description (limit to 200 characters per device or method):	
NA	
2. Control Device or Method Code(s):	NA

Emissions Unit Details

1. Package Unit:	
Manufacturer: Waukesha	Model Number: H24GL
2. Generator Nameplate Rating:	0.440 MW
3. Incinerator Information:	
Dwell Temperature:	°F
Dwell Time:	seconds
Incinerator Afterburner Temperature:	°F

Emissions Unit Operating Capacity and Schedule

1. Maximum Heat Input Rate:	4.11	mmBtu/hr
2. Maximum Incineration Rate:	lb/hr	tons/day
3. Maximum Process or Throughput Rate:		
4. Maximum Production Rate:		
5. Requested Maximum Operating Schedule:		
	hours/day	days/week
	weeks/year	500 hours/year
6. Operating Capacity/Schedule Comment (limit to 200 characters):		
Heat input is 4.11 MM Btu/hr based on vendor specifications.		
Schedule will be limited to 500 hours per year.		

B. EMISSION POINT (STACK/VENT) INFORMATION

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram? Emergency Generator		2. Emission Point Type Code: 1	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point): NA			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: NA			
5. Discharge Type Code: V	6. Stack Height: 20 feet	7. Exit Diameter: 0.67 feet	
8. Exit Temperature: 842 °F	9. Actual Volumetric Flow Rate: 2911 acfm	10. Water Vapor: %	
11. Maximum Dry Standard Flow Rate: dscfm		12. Nonstack Emission Point Height: feet	
13. Emission Point UTM Coordinates: Zone: 17 East (km): 372.157 North (km): 3102.414			
14. Emission Point Comment (limit to 200 characters):			

C. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment _____ of _____

1. Segment Description (Process/Fuel Type) (limit to 500 characters): Natural gas fired reciprocating engine driving a 440 Kw generator, operating no more than 500 hours per year.		
2. Source Classification Code (SCC): 2-02-002-54		3. SCC Units: million cubic feet burned
4. Maximum Hourly Rate: 0.00395	5. Maximum Annual Rate: 1.98	6. Estimated Annual Activity Factor: NA
7. Maximum % Sulfur: 0.03	8. Maximum % Ash: NA	9. Million Btu per SCC Unit: 1040
10. Segment Comment (limit to 200 characters): Based on vendor supplied heat rate of 4.11 MM Btu/hr and a fuel heat value of 1040 Btu/scf. Percent sulfur is base on maximum Federal Energy Regulatory Commission (FERC) limit of 10 gr S/100 scf and gas density of 0.0455 lb/scf.		

Segment Description and Rate: Segment NA of _____

1. Segment Description (Process/Fuel Type) (limit to 500 characters): 		
2. Source Classification Code (SCC):		3. SCC Units:
4. Maximum Hourly Rate:	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment (limit to 200 characters): 		

D. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION

Potential Emissions

1. Pollutant Emitted: NOX		2. Pollutant Regulatory Code: EL	
3. Primary Control Device Code:	4. Secondary Control Device Code: NA	5. Total Percent Efficiency of Control:	
6. Potential Emissions: 2.7 lb/hour 11.9 tons/year		7. Synthetically Limited? []	
8. Emission Factor: 2.1 g/bhp-hr Reference: Vendor's data		9. Emissions Method Code: 5	
10. Calculation of Emissions (limit to 600 characters): $(2.1 \text{ g/hp-hr})(585 \text{ hp})/453.6 \text{ g/lb} = 2.70 \text{ lb/hr}$ $(2.70 \text{ lb/hr})(8760 \text{ hr/yr})(1 \text{ ton}/2000 \text{ lb}) = 11.86 \text{ tpy}$ $(2.70 \text{ lb/hr})(500 \text{ hr/yr})(1 \text{ ton}/2000 \text{ lb}) = 0.68 \text{ tpy}$			
11. Pollutant Potential Emissions Comment (limit to 200 characters): Based on vendor's data. See Attachment C. Operation limited to 500 hours per year.			

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions: NA
3. Requested Allowable Emissions and Units: NA	4. Equivalent Allowable Emissions: lb/hour 0.68 tons/year
5. Method of Compliance (limit to 60 characters): Maintain record of hours of operation.	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): Limitation on hours to 500 hrs/yr meets US EPA's definition of an emergency generator as insignificant source for Title V purposes.	

D. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION

Potential Emissions

1. Pollutant Emitted: CO		2. Pollutant Regulatory Code: NS	
3. Primary Control Device Code: NA	4. Secondary Control Device Code: NA	5. Total Percent Efficiency of Control:	
6. Potential Emissions: 1.81 lb/hour 7.9 tons/year		7. Synthetically Limited? []	
8. Emission Factor: 1.4 g/bhp-hr Reference: Vendor's data		9. Emissions Method Code: 5	
10. Calculation of Emissions (limit to 600 characters): $(1.4 \text{ g/hp-hr})(585 \text{ hp})/453.6 \text{ g/lb} = 1.81 \text{ lb/hr}$ $(1.81 \text{ lb/hr})(8760 \text{ hr/yr})(1 \text{ ton}/2000 \text{ lb}) = 7.93 \text{ tpy}$ $(1.81 \text{ lb/hr})(500 \text{ hr/yr})(1 \text{ ton}/2000 \text{ lb}) = 0.45 \text{ tpy}$			
11. Pollutant Potential Emissions Comment (limit to 200 characters): Based on vendor's data. See Attachment C. Operation limited to 500 hours per year.			

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions: NA
3. Requested Allowable Emissions and Units: NA	4. Equivalent Allowable Emissions: lb/hour 0.45 tons/year
5. Method of Compliance (limit to 60 characters): Maintain record of hours of operation.	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): Limitation on hours to 500 hrs/yr meets US EPA's definition of an emergency generator as insignificant source for Title V purposes.	

D. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION**Potential Emissions**

1. Pollutant Emitted: VOC		2. Pollutant Regulatory Code: NS	
3. Primary Control Device Code: NA	4. Secondary Control Device Code: NA	5. Total Percent Efficiency of Control:	
6. Potential Emissions: 0.31 lb/hour 1.4 tons/year		7. Synthetically Limited? []	
8. Emission Factor: 0.24 g/bhp-hr Reference: Vendor's data		9. Emissions Method Code: 5	
10. Calculation of Emissions (limit to 600 characters): Vendor factor for non-methane hydrocarbons (NMHC) = 0.24 g/hp-hr. Assume all is VOC. $(0.24 \text{ g/hp-hr})(585 \text{ hp})/453.6 \text{ g/lb} = 0.31 \text{ lb/hr}$ $(0.31 \text{ lb/hr})(8760 \text{ hr/yr})(1 \text{ ton}/2000 \text{ lb}) = 1.36 \text{ tpy}$ $(0.31 \text{ lb/hr})(500 \text{ hr/yr})(1 \text{ ton}/2000 \text{ lb}) = 0.08 \text{ tpy}$			
11. Pollutant Potential Emissions Comment (limit to 200 characters): Based on vendor's data. See Attachment C. Operation limited to 500 hours per year.			

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions: NA
3. Requested Allowable Emissions and Units: NA	4. Equivalent Allowable Emissions: lb/hour 0.1 tons/year
5. Method of Compliance (limit to 60 characters):	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): Limitation on hours to 500 hrs/yr meets US EPA's definition of an emergency generator as insignificant source for Title V purposes.	

D. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION

Potential Emissions

1. Pollutant Emitted: SO2		2. Pollutant Regulatory Code: EL	
3. Primary Control Device Code: NA	4. Secondary Control Device Code: NA	5. Total Percent Efficiency of Control:	
6. Potential Emissions: 0.11 lb/hour 0.5 tons/year		7. Synthetically Limited? []	
8. Emission Factor: 10 gr/100scf Reference: Vendor's fuel use data		9. Emissions Method Code: 2	
10. Calculation of Emissions (limit to 600 characters): $(10 \text{ gr S}/100 \text{ scf})(0.00395 \text{ MMscf/hr})(1 \text{ lb}/7000 \text{ gr}) = 0.056 \text{ lb S/hr}$ $(0.056 \text{ lb S/hr})(2 \text{ lb SO}_2/\text{lb S}) = 0.11 \text{ lb SO}_2/\text{hr}$ $(0.11 \text{ lb SO}_2/\text{hr})(8760 \text{ hr/yr})(1 \text{ ton}/2000 \text{ lb}) = 0.49 \text{ ton/yr}$ $(0.11 \text{ lb SO}_2/\text{hr})(500 \text{ hr/yr})(1 \text{ ton}/2000 \text{ lb}) = 0.03 \text{ ton/yr}$			
11. Pollutant Potential Emissions Comment (limit to 200 characters): Operation limited to 500 hours per year. SO2 emission factor is based on maximum Federal Energy Regulatory Commission (FERC) limit of 10 gr S/100 scf and gas density of 0.0455 lb/scf.			

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions: NA
3. Requested Allowable Emissions and Units: NA	4. Equivalent Allowable Emissions: lb/hour 0.03 tons/year
5. Method of Compliance (limit to 60 characters): Initial performance test and fuel monitoring.	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): Limitation on hours to 500 hrs/yr meets US EPA's definition of an emergency generator as insignificant source for Title V purposes.	

D. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION**Potential Emissions**

1. Pollutant Emitted: PM		2. Pollutant Regulatory Code: NS	
3. Primary Control Device Code: NA	4. Secondary Control Device Code: NA	5. Total Percent Efficiency of Control:	
6. Potential Emissions: 0.04 lb/hour 0.2 tons/year		7. Synthetically Limited? []	
8. Emission Factor: 0.00999 lb/MMBtu Reference: AP-42 Table 3.2-2, 4/00		9. Emissions Method Code: 4	
10. Calculation of Emissions (limit to 600 characters): (0.00999 lb/MM Btu)(4.11 MM Btu/hr) = 0.04 lb/hr (0.04 lb/hr)(8760 hr/yr)(1 ton/2000 lb) = 0.18 ton/y (0.04 lb/hr)(500 hr/yr)(1 ton/2000 lb) = 0.01 ton/y			
11. Pollutant Potential Emissions Comment (limit to 200 characters): Operation limited to 500 hours per year. Based on vendor's fuel use data.			

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions: NA
3. Requested Allowable Emissions and Units: NA	4. Equivalent Allowable Emissions: lb/hour 0.01 tons/year
5. Method of Compliance (limit to 60 characters): Maintain record of hours of operation.	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): Limitation on hours to 500 hrs/yr meets US EPA's definition of an emergency generator as insignificant source for Title V purposes.	

G. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

Supplemental Requirements

1. Process Flow Diagram <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable <input checked="" type="checkbox"/> Waiver Requested
2. Fuel Analysis or Specification <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable <input checked="" type="checkbox"/> Waiver Requested
3. Detailed Description of Control Equipment <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
4. Description of Stack Sampling Facilities <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable <input checked="" type="checkbox"/> Waiver Requested
5. Compliance Test Report <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously submitted, Date: _____ <input checked="" type="checkbox"/> Not Applicable
6. Procedures for Startup and Shutdown <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
7. Operation and Maintenance Plan <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
8. Supplemental Information for Construction Permit Application <input checked="" type="checkbox"/> Attached, Document ID: <u>Narrative</u> _____ <input type="checkbox"/> Not Applicable
9. Other Information Required by Rule or Statute <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
10. Supplemental Requirements Comment: Supplemental information is provided in the narrative description accompanying these forms.

III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through G as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application.

A. GENERAL EMISSIONS UNIT INFORMATION

Emissions Unit Description and Status

<p>1. Type of Emissions Unit Addressed in This Section: (Check one)</p> <p><input type="checkbox"/> This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).</p> <p><input type="checkbox"/> This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.</p> <p><input checked="" type="checkbox"/> This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.</p>		
<p>2. Description of Emissions Unit Addressed in This Section (limit to 60 characters):</p> <p>Fugitive emissions from component leaks</p>		
<p>3. Emissions Unit Identification Number: ID:</p>		<p><input checked="" type="checkbox"/> No ID <input type="checkbox"/> ID Unknown</p>
<p>4. Emissions Unit Status Code: C</p>	<p>5. Initial Startup Date: 09/01/02</p>	<p>6. Emissions Unit Major Group SIC Code: 49</p>
<p>7. Emissions Unit Comment: (Limit to 500 Characters)</p> <p>These are new fugitive leak emissions from new components (valves, flanges, etc.).</p>		

Emissions Unit Information Section 4 of 6

Emissions Unit Control Equipment

1. Control Equipment/Method Description (limit to 200 characters per device or method):	
NA	
2. Control Device or Method Code(s):	NA

Emissions Unit Details

1. Package Unit:	
Manufacturer:	Model Number:
2. Generator Nameplate Rating:	MW
3. Incinerator Information:	
Dwell Temperature:	°F
Dwell Time:	seconds
Incinerator Afterburner Temperature:	°F

Emissions Unit Operating Capacity and Schedule

1. Maximum Heat Input Rate:	mmBtu/hr
2. Maximum Incineration Rate:	lb/hr tons/day
3. Maximum Process or Throughput Rate:	
4. Maximum Production Rate:	
5. Requested Maximum Operating Schedule:	
24 hours/day	7 days/week
52 weeks/year	8760 hours/year
6. Operating Capacity/Schedule Comment (limit to 200 characters):	

B. EMISSION POINT (STACK/VENT) INFORMATION

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram? FUGITIVE		2. Emission Point Type Code: 4	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point): NA			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: NA			
5. Discharge Type Code: F	6. Stack Height: NA	feet	7. Exit Diameter: NA
		feet	
8. Exit Temperature: 77 °F	9. Actual Volumetric Flow Rate: NA	acfm	10. Water Vapor: %
11. Maximum Dry Standard Flow Rate: NA		dscfm	12. Nonstack Emission Point Height: 0
			feet
13. Emission Point UTM Coordinates: Zone: 17 East (km): 372.157 North (km): 3102.414			
14. Emission Point Comment (limit to 200 characters):			

C. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment _____ of _____

1. Segment Description (Process/Fuel Type) (limit to 500 characters): Fugitive emissions from component leaks.		
2. Source Classification Code (SCC): 3-10-888-11	3. SCC Units: MM cubic feet produced	
4. Maximum Hourly Rate: 0	5. Maximum Annual Rate: 0	6. Estimated Annual Activity Factor: component count
7. Maximum % Sulfur: NA	8. Maximum % Ash: NA	9. Million Btu per SCC Unit: NA
10. Segment Comment (limit to 200 characters): Based on count of new components and USEPA emission factors provided in EPA publication EPA-453/R-95-017, November 1995, "Protocol for Equipment Leak Emission Estimates"		

Segment Description and Rate: Segment NA of _____

1. Segment Description (Process/Fuel Type) (limit to 500 characters): NA		
2. Source Classification Code (SCC):	3. SCC Units:	
4. Maximum Hourly Rate:	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment (limit to 200 characters):		

D. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION

Potential Emissions

1. Pollutant Emitted: VOC		2. Pollutant Regulatory Code: NS	
3. Primary Control Device Code: NA	4. Secondary Control Device Code: NA	5. Total Percent Efficiency of Control:	
6. Potential Emissions: 0.2566 lb/hour 1.12 tons/year		7. Synthetically Limited? []	
8. Emission Factor: lb/hr/component Reference: EPA-453/R-95-017, Protocol for Equipment Leak EmissionEstimates"		9. Emissions Method Code: 5	
10. Calculation of Emissions (limit to 600 characters): (EPA factor for specific component type) (number of components of specific type) = tpy. Assume non-methane/non-ethane fraction is 5%. (tons/year)(2000 lb/ton)(1 yr/8760 hr) = lb/hr			
11. Pollutant Potential Emissions Comment (limit to 200 characters): Factors vary by component type. See Attachment D for specific factors and calculations.			

Allowable Emissions Allowable Emissions NA of

1. Basis for Allowable Emissions Code: NA	2. Future Effective Date of Allowable Emissions: NA
3. Requested Allowable Emissions and Units:	4. Equivalent Allowable Emissions: NA lb/hour NA tons/year
5. Method of Compliance (limit to 60 characters):	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):	

G. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

Supplemental Requirements

1. Process Flow Diagram <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable <input checked="" type="checkbox"/> Waiver Requested
2. Fuel Analysis or Specification <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable <input checked="" type="checkbox"/> Waiver Requested
3. Detailed Description of Control Equipment <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
4. Description of Stack Sampling Facilities <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable <input checked="" type="checkbox"/> Waiver Requested
5. Compliance Test Report <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously submitted, Date: _____ <input checked="" type="checkbox"/> Not Applicable
6. Procedures for Startup and Shutdown <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
7. Operation and Maintenance Plan <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
8. Supplemental Information for Construction Permit Application <input checked="" type="checkbox"/> Attached, Document ID: <u>Narrative</u> _____ <input type="checkbox"/> Not Applicable
9. Other Information Required by Rule or Statute <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
10. Supplemental Requirements Comment: Supplemental information is provided in the narrative description accompanying these forms.

III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through G as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application.

A. GENERAL EMISSIONS UNIT INFORMATION

Emissions Unit Description and Status

<p>1. Type of Emissions Unit Addressed in This Section: (Check one)</p> <p><input type="checkbox"/> This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).</p> <p><input type="checkbox"/> This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.</p> <p><input checked="" type="checkbox"/> This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.</p>		
<p>2. Description of Emissions Unit Addressed in This Section (limit to 60 characters):</p> <p>4,200-gallon vertical fixed roof pipeline condensate storage tank.</p>		
<p>3. Emissions Unit Identification Number:</p> <p>ID:</p>		<p><input checked="" type="checkbox"/> No ID</p> <p><input type="checkbox"/> ID Unknown</p>
<p>4. Emissions Unit Status Code:</p> <p>C</p>	<p>5. Initial Startup Date:</p> <p>09/01/02</p>	<p>6. Emissions Unit Major Group SIC Code:</p> <p>49</p>
<p>7. Emissions Unit Comment: (Limit to 500 Characters)</p> <p>Tank is vertical and measures approximately 8 feet high by 9.5-foot diameter.</p>		

Emissions Unit Control Equipment

1. Control Equipment/Method Description (limit to 200 characters per device or method):	
NA	
2. Control Device or Method Code(s):	NA

Emissions Unit Details

1. Package Unit:	
Manufacturer:	Model Number:
2. Generator Nameplate Rating:	MW
3. Incinerator Information:	
Dwell Temperature:	°F
Dwell Time:	seconds
Incinerator Afterburner Temperature:	°F

Emissions Unit Operating Capacity and Schedule

1. Maximum Heat Input Rate:	mmBtu/hr
2. Maximum Incineration Rate:	lb/hr tons/day
3. Maximum Process or Throughput Rate:	3000 gallons per year
4. Maximum Production Rate:	
5. Requested Maximum Operating Schedule:	
24 hours/day	7 days/week
52 weeks/year	8760 hours/year
6. Operating Capacity/Schedule Comment (limit to 200 characters):	
.	

B. EMISSION POINT (STACK/VENT) INFORMATION

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram? Condensate		2. Emission Point Type Code: 1	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point): NA			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: NA			
5. Discharge Type Code: F	6. Stack Height: NA	feet	7. Exit Diameter: NA
		feet	
8. Exit Temperature: 77 °F	9. Actual Volumetric Flow Rate: NA	acfm	10. Water Vapor: %
11. Maximum Dry Standard Flow Rate: NA		dscfm	12. Nonstack Emission Point Height: 8
			feet
13. Emission Point UTM Coordinates: Zone: 17 East (km): 372.157 North (km): 3102.414			
14. Emission Point Comment (limit to 200 characters): 4200 gallon vertical tank			

C. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 2

1. Segment Description (Process/Fuel Type) (limit to 500 characters): Breathing loss.		
2. Source Classification Code (SCC): 4-07-146-97		3. SCC Units: 1000 gallons capacity
4. Maximum Hourly Rate: NA	5. Maximum Annual Rate: NA	6. Estimated Annual Activity Factor: 4.2
7. Maximum % Sulfur: NA	8. Maximum % Ash: NA	9. Million Btu per SCC Unit: NA
10. Segment Comment (limit to 200 characters):		

Segment Description and Rate: Segment 2 of 2

1. Segment Description (Process/Fuel Type) (limit to 500 characters): Working loss.		
2. Source Classification Code (SCC): 4-07-146-98		3. SCC Units: 1000 gallons throughput
4. Maximum Hourly Rate: NA	5. Maximum Annual Rate: NA	6. Estimated Annual Activity Factor: 3.0
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment (limit to 200 characters):		

D. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION

Potential Emissions

1. Pollutant Emitted: VOC		2. Pollutant Regulatory Code: NS	
3. Primary Control Device Code: NA	4. Secondary Control Device Code: NA	5. Total Percent Efficiency of Control:	
6. Potential Emissions: 0.003 lb/hour 0.014 tons/year		7. Synthetically Limited? []	
8. Emission Factor: Reference: USEPA AP-42 Tanks3.1 Program		9. Emissions Method Code: 3	
10. Calculation of Emissions (limit to 600 characters): Calculated using USEPA Tanks program, version 3.1. See Attachment D for output.			
11. Pollutant Potential Emissions Comment (limit to 200 characters):			

Allowable Emissions Allowable Emissions NA of _____

1. Basis for Allowable Emissions Code: NA	2. Future Effective Date of Allowable Emissions: NA
3. Requested Allowable Emissions and Units:	4. Equivalent Allowable Emissions: NA lb/hour NA tons/year
5. Method of Compliance (limit to 60 characters):	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): None	

G. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

Supplemental Requirements

1. Process Flow Diagram <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable <input checked="" type="checkbox"/> Waiver Requested
2. Fuel Analysis or Specification <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable <input checked="" type="checkbox"/> Waiver Requested
3. Detailed Description of Control Equipment <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
4. Description of Stack Sampling Facilities <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable <input checked="" type="checkbox"/> Waiver Requested
5. Compliance Test Report <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously submitted, Date: _____ <input checked="" type="checkbox"/> Not Applicable
6. Procedures for Startup and Shutdown <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
7. Operation and Maintenance Plan <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
8. Supplemental Information for Construction Permit Application <input checked="" type="checkbox"/> Attached, Document ID: <u>Narrative</u> _____ <input type="checkbox"/> Not Applicable
9. Other Information Required by Rule or Statute <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
10. Supplemental Requirements Comment: Supplemental information is provided in the narrative description accompanying these forms.

III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through G as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application.

A. GENERAL EMISSIONS UNIT INFORMATION

Emissions Unit Description and Status

<p>1. Type of Emissions Unit Addressed in This Section: (Check one)</p> <p><input type="checkbox"/> This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).</p> <p><input type="checkbox"/> This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.</p> <p><input checked="" type="checkbox"/> This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.</p>		
<p>2. Description of Emissions Unit Addressed in This Section (limit to 60 characters):</p> <p>4,200-gallon vertical oily water storage tank.</p>		
<p>3. Emissions Unit Identification Number: ID:</p>		<p><input checked="" type="checkbox"/> No ID <input type="checkbox"/> ID Unknown</p>
<p>4. Emissions Unit Status Code: C</p>	<p>5. Initial Startup Date: 09/01/02</p>	<p>6. Emissions Unit Major Group SIC Code: 49</p>
<p>7. Emissions Unit Comment: (Limit to 500 Characters)</p> <p>Tank is vertical and measures approximately 8 feet high by 9.5-foot diameter.</p>		

Emissions Unit Control Equipment

1. Control Equipment/Method Description (limit to 200 characters per device or method):	
NA	
2. Control Device or Method Code(s):	NA

Emissions Unit Details

1. Package Unit:		
Manufacturer:		Model Number:
2. Generator Nameplate Rating:		MW
3. Incinerator Information:		
	Dwell Temperature:	°F
	Dwell Time:	seconds
	Incinerator Afterburner Temperature:	°F

Emissions Unit Operating Capacity and Schedule

1. Maximum Heat Input Rate:		mmBtu/hr
2. Maximum Incineration Rate:	lb/hr	tons/day
3. Maximum Process or Throughput Rate:	3000 gallons per year	
4. Maximum Production Rate:		
5. Requested Maximum Operating Schedule:		
	24 hours/day	7 days/week
	52 weeks/year	8760 hours/year
6. Operating Capacity/Schedule Comment (limit to 200 characters):		

B. EMISSION POINT (STACK/VENT) INFORMATION

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram? Oily Water		2. Emission Point Type Code: 1	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point): NA			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: NA			
5. Discharge Type Code: F	6. Stack Height: NA	feet	7. Exit Diameter: NA
			feet
8. Exit Temperature: 77 °F	9. Actual Volumetric Flow Rate: NA	acfm	10. Water Vapor: %
11. Maximum Dry Standard Flow Rate: NA	dscfm	12. Nonstack Emission Point Height: 8	feet
13. Emission Point UTM Coordinates: Zone: 17 East (km): 372.157 North (km): 3102.414			
14. Emission Point Comment (limit to 200 characters): 4200 gallon vertical tank			

C. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 2

1. Segment Description (Process/Fuel Type) (limit to 500 characters): Breathing loss.		
2. Source Classification Code (SCC): 4-07-146-97		3. SCC Units: 1000 gallons capacity
4. Maximum Hourly Rate: NA	5. Maximum Annual Rate: NA	6. Estimated Annual Activity Factor: 4.2
7. Maximum % Sulfur: NA	8. Maximum % Ash: NA	9. Million Btu per SCC Unit: NA
10. Segment Comment (limit to 200 characters): None		

Segment Description and Rate: Segment 2 of 2

1. Segment Description (Process/Fuel Type) (limit to 500 characters): Working Loss.		
2. Source Classification Code (SCC): 4-07-146-98		3. SCC Units: 1000 gallon throughput
4. Maximum Hourly Rate: NA	5. Maximum Annual Rate: NA	6. Estimated Annual Activity Factor: 3.0
7. Maximum % Sulfur: NA	8. Maximum % Ash: NA	9. Million Btu per SCC Unit: NA
10. Segment Comment (limit to 200 characters): None		

**E. VISIBLE EMISSIONS INFORMATION
(Only Emissions Units Subject to a VE Limitation)**

Visible Emissions Limitation: Visible Emissions Limitation NA of

1. Visible Emissions Subtype:	2. Basis for Allowable Opacity: <input type="checkbox"/> Rule <input type="checkbox"/> Other
3. Requested Allowable Opacity: Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment (limit to 200 characters):	

**F. CONTINUOUS MONITOR INFORMATION
(Only Emissions Units Subject to Continuous Monitoring)**

Continuous Monitoring System: Continuous Monitor NA of

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement: <input type="checkbox"/> Rule <input type="checkbox"/> Other	
4. Monitor Information: Manufacturer: Serial Number: Model Number: Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment (limit to 200 characters):	

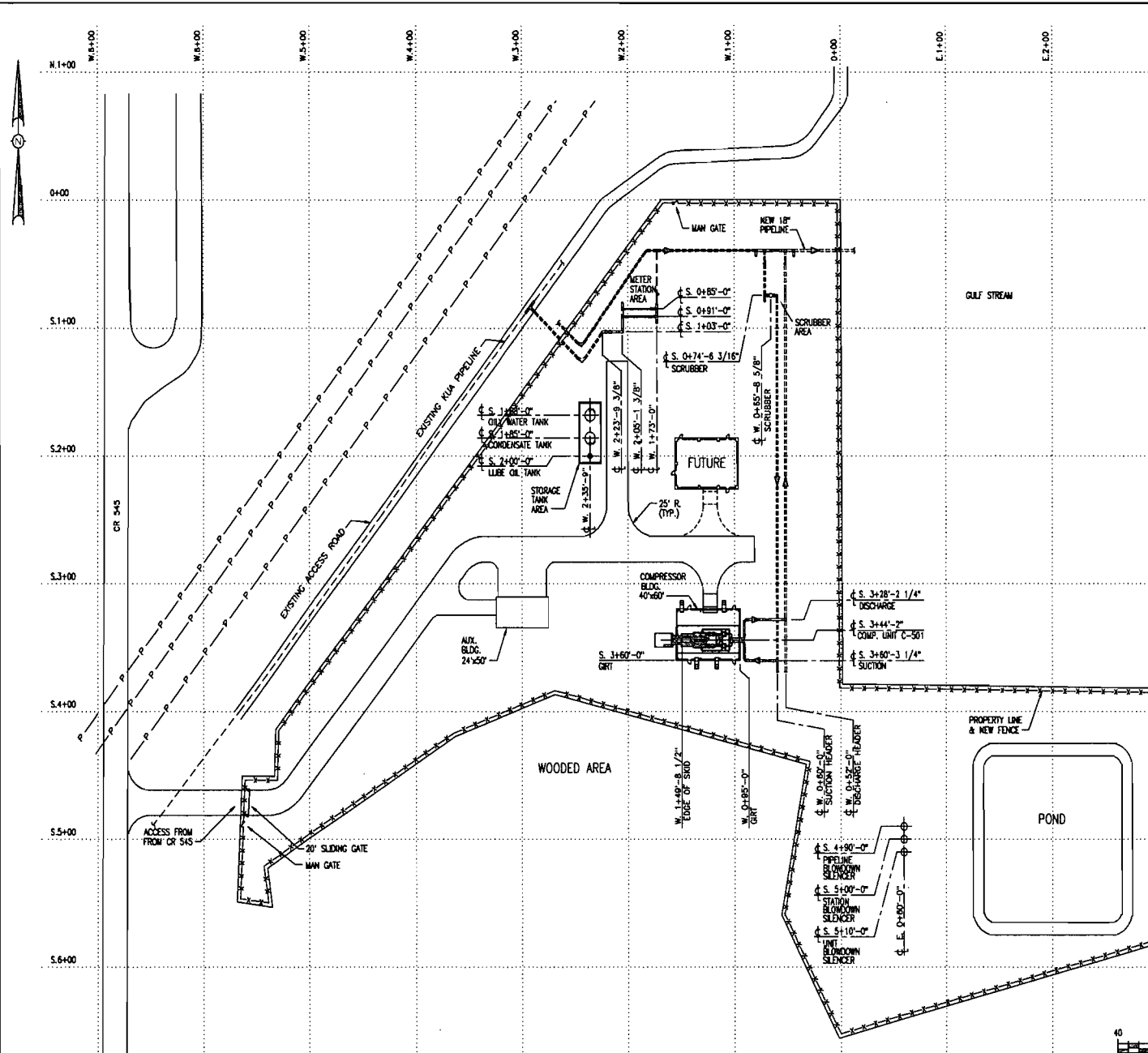
G. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

Supplemental Requirements

1. Process Flow Diagram <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable <input checked="" type="checkbox"/> Waiver Requested
2. Fuel Analysis or Specification <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable <input checked="" type="checkbox"/> Waiver Requested
3. Detailed Description of Control Equipment <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
4. Description of Stack Sampling Facilities <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable <input checked="" type="checkbox"/> Waiver Requested
5. Compliance Test Report <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously submitted, Date: _____ <input checked="" type="checkbox"/> Not Applicable
6. Procedures for Startup and Shutdown <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
7. Operation and Maintenance Plan <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
8. Supplemental Information for Construction Permit Application <input checked="" type="checkbox"/> Attached, Document ID: <u>Narrative</u> _____ <input type="checkbox"/> Not Applicable
9. Other Information Required by Rule or Statute <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
10. Supplemental Requirements Comment: Supplemental information is provided in the narrative description accompanying these forms.

Attachment B

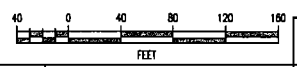
Plot Plan



HOLD LOG

- EXIST. KVA PIPELINE LOCATION
- NEW PIPELINE LOCATION AND TE-IN

- NOTES:**
- FOR MECH/TYPING GENERAL NOTES SEE DWG. M3-06
 - CONTRACTOR TO FIELD VERIFY ALL DIMENSIONS PRIOR TO FABRICATION AND INSTALLATION.
 - STATION CONTRACTOR TO FIELD VERIFY ALL TE-IN LOCATIONS AND ELEVATIONS.
 - STATION CONTRACTOR TO FIELD VERIFY ALL (±) DIMENSIONS, COORDINATES & ELEVATIONS.



GULF INTERSTATE ENGINEERING
HOUSTON, TEXAS

DWG. NO.	ISSUED FOR BID	NO.	REVISION - DESCRIPTION	MAA BY	DATE	CHKD BY	APPT	CHECKS	PLANT NO.	CONSTRUCTION YEAR	2001	BY	DATE	DESIGN	CAM	7/18/01	DATE	CONSTR.	BRT	7/18/01	DATE	FILE NO.	SCALE	1"=40'-0"							
																									FILE NAME	482031.dwg					
<table border="1"> <tr> <th colspan="2">CHECKED</th> <th colspan="2">APPROVED</th> </tr> <tr> <td>BY</td> <td>DATE</td> <td>BY</td> <td>DATE</td> </tr> </table>																								CHECKED		APPROVED		BY	DATE	BY	DATE
CHECKED		APPROVED																													
BY	DATE	BY	DATE																												

Enron Engineering & Construction Co.
Florida Gas Transmission Co.
Houston, Texas

COMPRESSOR STATION NO. 31
FGT PHASE V EXPANSION
GENERAL STATION LAYOUT
OSCEOLA COUNTY, FLORIDA

PROJECT NO.
C.005063.41
SHEET NO.
M3-1A
SHEET 1 OF 1

Attachment C

Vendor Information

Cooper-Rolls Royce 501 KC-7 Turbine

Waukesha Model H24GL Reciprocating Engine

Cooper-Rolls Royce 501 KC-7 Turbine

Date: June 4, 2001

Project: Florida Gas Site Analyses

Parameter	Data Pt. No.	C/S 27 #1	C/S 27 #2	C/S 27 #3
Altitude (feet)		110	110	110
Ambient Press. (psia)		14.638	14.638	14.638
Relative Humidity		60	60	60
Specific Humidity		0.00638	0.00638	0.00638
Inlet Loss ("H2O)		0	0	0
Exhaust Loss ("H2O)		0	0	0
Inlet Pressure (CIP, psia)		14.638	14.638	14.638
Inlet Temperature (CIT, °F)		59	59	59
Inlet Flow (lb/sec)		45.139	42.061	39.286
MGT t/c (°F)		1375	1292	1235
Control Temp. (°F)		1935	1836	1772
Fuel Flow (MMBTU/hr)		57.2282	48.2534	41.9147
Fuel Flow (lb/hr)		2802.56	2363.05	2052.63
Output Shaft Speed (rpm)		13600	13600	13600
Gas Generator Speed (rpm)		14676	14001	13499
Shaft Power (hp)		7205.6	5406.1	3603.9
% of Full Load		100	75	50
SFC [lb/(hp*hr)]		0.3889	0.4371	0.5696
HeatRate[Shaft] BTU/(shp*hr)		7942	8926	11630
Exhaust Flow (lb/sec)		45.605	40.403	33.97
Exhaust Temp. (f/a, °F)		958	941	959
Exhaust P-static (psia)		14.638	14.638	14.638
Fuel		Ref Gas	Ref Gas	Ref Gas
Fuel LHV (BTU/lb)		20420	20420	20420
H/C (wt ratio)		0.3261	0.3261	0.3261
Fuel Molecular Weight		16.6303	16.6303	16.6303
Fuel Specific Gravity		0.5902	0.5902	0.5902
NOx ppm		25	25	25
CO ppm		50	50	50
UHC ppm		20	20	20
VOC ppm		10	10	10
Expected Emissions (lb/eng-hr)				
NOx		5.7	4.7	3.9
CO		6.96	5.76	4.70
UHC		1.59	1.32	1.07
VOC		1.49	1.23	1.01
Exhaust Gas (vol %)				
CO2		2.94	2.75	2.67
H2O		6.64	6.27	6.12
O2		14.42	14.83	15
N2		75.1	75.24	75.3
Ar		0.9	0.9	0.9

Waukesha Model H24GL Reciprocating Engine

03/21/01 WED 10:13 FAX 713 877 4165

GULF INTERSTATE ENGR.

013

03/18/01 MON 14:50 FAX 713 383 1334
03/18/01 MON 09:11 FAX 1 743 881 0672

THE HANOVER CO.
P.O. BOX 10000 HOUSTON TEXAS 77255

010

MAR 15 '01 06:25PM WILKESH ENGINE SLS

P.10/12



SAA No. 2001 - 89

CERTIFICATION OF ENGINEERING APPROVAL

Are Special Codes or Equipment Required for this Approval? Y

List code 1100: Power of 176 ps1 continuous duty.

Engineering Approval:

Ignition Timing 13 *BTDC Carb Setting (Lambda or MAFR) 1.8% O2

When operating per the site conditions listed and per the attached fuel analysis, WED approves a maximum continuous rating of 585 BHP @1800 RPM with no overload allowed.

For the site conditions listed and per the attached fuel analysis with the engine operating at the stated loads @1800 RPM, the following exhaust emissions are guaranteed not to exceed:

	- Guaranteed -	- Estimated -
BHP:	585	439
*NOx: (g/bhp-hr)	2.1	2.0
CO: (g/bhp-hr)	1.4	1.5
NMHC: (g/bhp-hr)	0.24	0.28

* NOx emission at absolute humidity of 75 grains H2O/lb dry air.

Fuel must conform to WED "Gaseous Fuel Specification" 37864-7.

Mark J. Helgren
Signed: Mark J. Helgren

3/15/01
Date: 03/15/2001

Joe Lange
Signed: Joe Lange

3/15/2001
Date: 03/15/2001

HEAT REJECTION

3

HEAT REJECTION AND OPERATING DATA MODEL H24GL/GLD 130° F (54° C) AUX. WATER TEMPERATURE 180° F (82° C) JACKET WATER TEMP.						
	BMEP (PSI)	ENGINE SPEED - RPM				
		1400	1500	1600	1700	1800
POWER (BHP)	185	-	515	545	580	615
	176	455	490	520	555	585
	160	415	445	475	505	530
	150	388	415	443	471	498
	125	323	346	369	392	415
	100	258	277	295	314	332
	75	194	208	222	235	249
	50	129	138	148	157	166
BRAKE SPEC FUEL CONS. (BTU/BHP-HR)	185	-	6786	6882	6933	6978
	176	6814	6831	6928	6980	7026
	160	6902	6923	7021	7076	7126
	150	6967	6991	7089	7147	7199
	125	7174	7208	7308	7374	7433
	100	7484	7533	7636	7714	7784
	75	8002	8076	8182	8281	8369
	50	9037	9161	9275	9414	9539
FUEL CONSUMPTION (BTU/HR) x 1000	185	-	3475	3760	4025	4290
	176	3100	3330	3600	3855	4110
	160	2855	3065	3320	3555	3790
	150	2700	2905	3140	3365	3590
	125	2315	2495	2700	2895	3085
	100	1935	2085	2255	2420	2585
	75	1550	1675	1810	1950	2085
	50	1168	1268	1370	1477	1585
HEAT TO JACKET WATER (BTU/HR) x 1000	185	-	912	972	1024	1077
	176	832	882	939	991	1042
	160	781	830	881	931	981
	150	749	798	845	893	942
	125	669	716	754	800	846
	100	590	634	663	707	750
	75	510	553	573	613	654
	50	430	471	482	520	557
HEAT TO LUBE OIL (BTU/HR) x 1000	185	-	94	110	121	131
	176	82	93	108	119	129
	160	79.5	90.5	106	116	126
	150	78	89	104	114	124
	125	74.5	85	100	110	120
	100	71	81.5	95.5	105	115
	75	67.5	77.5	91.5	101	110
	50	64	73.5	87	96	105
HEAT TO INTERCOOLER (BTU/HR) x 1000	185	-	185	213	243	273
	176	151	173	199	228	256
	160	132	152	175	201	227
	150	120	138	160	184	208
	125	89.5	104	123	142	162
	100	58.5	70	86	101	115
	75	28	36	49	59	68.5
	50	-2	2	12	17	22

HEAT REJECTION

3

HEAT REJECTION AND OPERATING DATA MODEL H24GL/GLD 130° F (54° C) AUX. WATER TEMPERATURE 180° F (82° C) JACKET WATER TEMP.						
	BMEP (PSI)	ENGINE SPEED - RPM				
		1400	1500	1600	1700	1800
HEAT TO RADIATION (BTU/HR) x 1000	185	-	73	79.5	83.5	87.5
	176	72	73	79	83	87.5
	160	71	72.5	78.5	82.5	87
	150	71	72.5	78	82.5	86.5
	125	70	72	77.5	81.5	86
	100	69	71.5	76.5	81	85
	75	68	70.5	76	80	84
	50	67.5	69.5	75	79	83
TOTAL ENERGY IN EXHAUST (BTU/HR) x 1000	185	-	942	1030	1112	1196
	176	831	897	983	1061	1142
	160	756	818	898	970	1045
	150	709	769	844	913	984
	125	594	647	712	772	833
	100	483	527	581	632	684
	75	376	412	454	495	538
	50	275	302	332	364	397
EXHAUST TEMP AFTER TURBINE (+/- 50 °F)	185	-	810	823	834	844
	176	799	808	821	831	842
	160	794	804	816	827	838
	150	791	801	814	824	835
	125	783	795	807	818	829
	100	775	789	800	812	823
	75	768	782	793	805	817
	50	760	776	786	798	811
INDUCTION AIR FLOW (SCFM)	185	-	990	1065	1140	1215
	176	880	945	1020	1090	1160
	160	805	865	935	1000	1065
	150	760	815	885	945	1005
	125	640	690	750	800	855
	100	525	565	615	660	705
	75	410	445	485	520	555
	50	300	325	355	385	410
EXHAUST GAS FLOW (LBS/HR)	185	-	4520	4875	5205	5540
	176	4015	4315	4660	4980	5300
	160	3675	3955	4275	4575	4870
	150	3465	3725	4035	4315	4600
	125	2930	3155	3420	3670	3915
	100	2400	2585	2810	3020	3230
	75	1885	2030	2210	2380	2550
	50	1380	1495	1625	1755	1890

HEAT REJECTION

3

HEAT REJECTION AND OPERATING DATA MODEL H24GL/GLD 130° F (54° C) AUX. WATER TEMPERATURE 180° F (82° C) JACKET WATER TEMP.						
	BMEP (PSI)	Engine Speed - RPM				
		1400	1500	1600	1700	1800
NO _x Emissions (g/bhp-hr)	185	-	2.66	2.66	2.54	2.42
	176	2.53	2.48	2.38	2.22	2.06
	160	2.50	2.42	2.35	2.18	2.00
	150	2.47	2.39	2.32	2.17	2.01
	125	2.40	2.33	2.26	2.12	1.99
	100	2.34	2.26	2.17	2.08	1.98
	75	2.26	2.19	2.12	2.03	1.94
	50	2.10	2.02	1.94	1.90	1.86
CO Emissions (g/bhp-hr)	185	-	1.25	1.24	1.25	1.27
	176	1.34	1.28	1.29	1.31	1.34
	160	1.32	1.40	1.35	1.34	1.32
	150	1.38	1.42	1.39	1.31	1.23
	125	1.43	1.45	1.42	1.42	1.43
	100	1.52	1.51	1.51	1.51	1.52
	75	1.66	1.62	1.61	1.63	1.66
	50	1.85	1.88	1.87	1.86	1.85
NMHC Emissions (g/bhp-hr)	185	-	0.30	0.28	0.26	0.24
	176	0.36	0.30	0.28	0.26	0.24
	160	0.33	0.31	0.30	0.28	0.25
	150	0.35	0.32	0.31	0.29	0.27
	125	0.36	0.32	0.32	0.30	0.29
	100	0.38	0.35	0.35	0.32	0.30
	75	0.44	0.39	0.38	0.36	0.35
	50	0.51	0.47	0.45	0.44	0.44
THC Emissions (g/bhp-hr)	185	-	1.99	1.84	1.60	1.53
	176	2.38	1.99	1.84	1.73	1.61
	160	2.22	2.07	1.99	1.84	1.69
	150	2.30	2.11	2.07	1.94	1.80
	125	2.38	2.15	2.15	2.03	1.92
	100	2.53	2.30	2.30	2.15	1.99
	75	2.91	2.61	2.53	2.42	2.30
	50	3.37	3.14	2.99	2.95	2.91


HEAT REJECTION

3

NOTES:

1. All data are based on ISO standard conditions of 29.54 inches Hg. (100 kPa) barometric pressure, 77° F (25° C) ambient and induction air temperature, 30% relative humidity (0.3 inches Hg. /1 kPa water vapor pressure), 180° F (82° C) engine jacket water outlet temperature, and standard ignition timing per Note 5 for 11:1 compression ratio.
2. All data are average values at the standard conditions and will vary for individual engines and with operating and ambient conditions and with changes to ignition timing or air/fuel ratio. An adequate reserve should be used for cooling system or heat recovery calculations. See also Cooling System Guidelines, S-6699-7, latest version.
3. ISO Standard (continuous) power ratings conform to ISO 3046/1, latest version, with a mechanical efficiency of 90% and auxiliary water temperature, T_{cra}, of 130° F (54.5° C) limited to ± 10° F (± 5.5° C). ISO Standard power rating of 176 BMEP requires Price Book Option Code 1100.
4. Fuel standard: dry natural gas, 900 BTU/scf (35.38 MJ/m³ [25, V (0; 101.325)]) saturated lower heating value (SLHV) with a minimum Waukesha Knock Index™ of 91. Refer to S-7884-6, latest version, for the full fuel specification.
5. Standard ignition timing is 13° BTDC with J-type 60999T or 60999W spark plugs and 15° BTDC with 4-ground 60999S spark plugs.
6. For heat rejection changes due to engine jacket water outlet temperature higher than standard (Note 1), refer to S-7613-3, latest version.
7. Total Exhaust Energy includes both recoverable and non-recoverable heat. For a procedure to calculate recoverable heat refer to S-8117-1, latest version.
8. Exhaust oxygen concentration set to 7.8% at rated speed and load at standard timing to provide 2 g/bhp-hr or less NO_x. This oxygen level is measured at the port located in the exhaust manifold upstream of the turbocharger.
9. Low pressure (draw thru) fuel system on the GLD model.
10. Reference Engine Ratings and Fuel Consumption curve sheets C-1104-15 and C-1104-17.
11. Exhaust flow at nominal 29.54 inches Hg. (100 kPa) atmospheric pressure:

$$\text{Flow rate (English): } \text{ACFM} = \frac{(\text{Exh. Flow, lb/hr}) \times (\text{Exh. Temp. } ^\circ\text{F} + 460)}{2275}$$

	<p align="center">HEAT REJECTION AND OPERATING DATA MODEL H24GL/GLD 130° F (54° C) AUX. WATER TEMPERATURE</p>	<p>EN: DATE:</p>	<p align="center">Ref: S 7770_A3</p>
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Attachment D

Emission Calculations

Engine Emissions

Engine HAP Emissions

Fugitive Leak Emissions

Tank Emissions

Engine Emissions

Engine No. 2701/02

NOx Emissions: (Based on Vendor Data)

$$\text{lb NOx/hr} = 5.70$$

$$\begin{aligned} \text{tons NOx/yr} &= (\text{lb NOx/hr})(\text{hr/yr})(1 \text{ ton}/2000 \text{ lb}) \\ &= (5.7 \text{ lb NOx/hr})(8760 \text{ hr/yr})(1 \text{ ton}/2000 \text{ lb}) \\ &= 24.97 \end{aligned}$$

CO Emissions: (Based on Vendor Data)

$$\text{lb CO/hr} = 6.96$$

$$\begin{aligned} \text{tons CO/yr} &= (\text{lb CO/hr})(\text{hr/yr})(1 \text{ ton}/2000 \text{ lb}) \\ &= (7.0 \text{ lb CO/hr})(8760 \text{ hr/yr})(1 \text{ ton}/2000 \text{ lb}) \\ &= 30.48 \end{aligned}$$

VOC Emissions: (Based on Vendor Data)

$$\text{lb VOC/hr} = 1.49$$

$$\begin{aligned} \text{tons VOC/yr} &= (\text{lb VOC/hr})(\text{hr/yr})(1 \text{ ton}/2000 \text{ lb}) \\ &= (1.49 \text{ lb VOC/hr})(8760 \text{ hr/yr})(1 \text{ ton}/2000 \text{ lb}) \\ &= 6.53 \end{aligned}$$

SO2 Emissions: (Based on FERC Limits)

$$\begin{aligned} \text{lb S/hr} &= (\text{gr S}/100 \text{ scf})(\text{MMscf/hr})(1 \text{ lb}/7000 \text{ gr}) \\ &= (10 \text{ gr S}/100 \text{ scf})(0.0605 \text{ MMscf/hr})(1 \text{ lb}/7000 \text{ gr}) \\ &= 0.86 \end{aligned}$$

$$\begin{aligned} \text{lb SO2/hr} &= (\text{lb S/hr})(2 \text{ lb SO2}/\text{lb S}) \\ &= (0.86 \text{ lb S/hr})(2 \text{ lb SO2}/\text{lb S}) \\ &= 1.73 \end{aligned}$$

$$\begin{aligned} \text{tons SO2/yr} &= (\text{lb SO2/hr})(\text{hr/yr})(1 \text{ ton}/2000 \text{ lb}) \\ &= (1.78 \text{ lb SO2/hr})(8760 \text{ hr/yr})(1 \text{ ton}/2000 \text{ lb}) \\ &= 7.58 \end{aligned}$$

PM 10/2.5 Emissions: (Based on AP-42 Table 3.1-2a, 4/00)

$$\begin{aligned} \text{lb PM/hr} &= (\text{lb PM}/\text{MMscf})(\text{MMBtu/hr}) \\ &= (0.0066 \text{ lb}/\text{Btu})(62.95 \text{ MMBtu/hr}) \\ &= 0.4155 \end{aligned}$$

$$\begin{aligned} \text{tons PM/yr} &= (\text{lb PM/hr})(\text{hr/yr})(1 \text{ ton}/2000 \text{ lb}) \\ &= (0.42 \text{ lb PM/hr})(8760 \text{ hr/yr})(1 \text{ ton}/2000 \text{ lb}) \\ &= 1.82 \end{aligned}$$

Engine No. Gen 1 EPN:

NOx Emissions: (Based on Vendor Data)

$$\begin{aligned}\text{lb NOx/hr} &= (\text{g/bhp-hr})(\text{bhp})(1 \text{ lb}/453.59 \text{ g}) = \text{lb/hr} \\ &= (2.1 \text{ g/bhp-hr})(585 \text{ bhp})(1 \text{ lb}/453.59 \text{ g}) \\ &= 2.71\end{aligned}$$

$$\begin{aligned}\text{tons NOx/yr} &= (\text{lb NOx/hr})(\text{hr/yr})(1 \text{ ton}/2000 \text{ lb}) \\ &= (2.7 \text{ lb NOx/hr})(500 \text{ hr/yr})(1 \text{ ton}/2000 \text{ lb}) \\ &= 0.677\end{aligned}$$

CO Emissions: (Based on Vendor Data)

$$\begin{aligned}\text{lb CO/hr} &= (\text{g/bhp-hr})(\text{bhp})(1 \text{ lb}/453.59 \text{ g}) = \text{lb/hr} \\ &= (1.4 \text{ g/bhp-hr})(585 \text{ bhp})(1 \text{ lb}/453.59 \text{ g}) \\ &= 1.81\end{aligned}$$

$$\begin{aligned}\text{tons CO/yr} &= (\text{lb CO/hr})(\text{hr/yr})(1 \text{ ton}/2000 \text{ lb}) \\ &= (1.8 \text{ lb CO/hr})(500 \text{ hr/yr})(1 \text{ ton}/2000 \text{ lb}) \\ &= 0.451\end{aligned}$$

VOC Emissions: (Based on Vendor Data)

$$\begin{aligned}\text{lb VOC/hr} &= (\text{g/bhp-hr})(\text{bhp})(1 \text{ lb}/453.59 \text{ g}) = \text{lb/hr} \\ &= (0.24 \text{ g/bhp-hr})(585 \text{ bhp})(1 \text{ lb}/453.59 \text{ g}) \\ &= 0.31\end{aligned}$$

$$\begin{aligned}\text{tons VOC/yr} &= (\text{lb VOC/hr})(\text{hr/yr})(1 \text{ ton}/2000 \text{ lb}) \\ &= (0.31 \text{ lb VOC/hr})(500 \text{ hr/yr})(1 \text{ ton}/2000 \text{ lb}) \\ &= 0.08\end{aligned}$$

SO2 Emissions: (Based on FERC Limits)

$$\begin{aligned}\text{lb S/hr} &= (\text{gr S}/100 \text{ scf})(\text{MMscf/hr})(1 \text{ lb}/7000 \text{ gr}) \\ &= (10 \text{ gr S}/100 \text{ scf})(0.0040 \text{ MMscf/hr})(1 \text{ lb}/7000 \text{ gr}) \\ &= 0.056\end{aligned}$$

$$\begin{aligned}\text{lb SO2/hr} &= (\text{lb S/hr})(2 \text{ lb SO2}/\text{lb S}) \\ &= (0.056 \text{ lb S/hr})(2 \text{ lb SO2}/\text{lb S}) \\ &= 0.11\end{aligned}$$

$$\begin{aligned}\text{tons SO2/yr} &= (\text{lb SO2/hr})(\text{hr/yr})(1 \text{ ton}/2000 \text{ lb}) \\ &= (0.11 \text{ lb SO2/hr})(500 \text{ hr/yr})(1 \text{ ton}/2000 \text{ lb}) \\ &= 0.03\end{aligned}$$

PM Emissions: (Based on AP-42 Table 3.2-2, 4/00)

$$\begin{aligned}\text{lb PM/hr} &= (\text{lb PM}/\text{MMBtu})(\text{MMBtu/hr}) \\ &= (0.00999 \text{ MMBtu/hr})(4.1 \text{ MMBtu/hr}) \\ &= 0.0411\end{aligned}$$

$$\begin{aligned}\text{tons PM/yr} &= (\text{lb PM/hr})(\text{hr/yr})(1 \text{ ton}/2000 \text{ lb}) \\ &= (0.041 \text{ lb PM/hr})(500 \text{ hr/yr})(1 \text{ ton}/2000 \text{ lb}) \\ &= 0.01\end{aligned}$$

Engine HAP Emissions

GRI-HAPCalc Version 3.1 is a personal computer-based database program that estimates emissions of hazardous air pollutants (HAPs) and criteria pollutants from natural gas industry operations. HAPCalc 3.1 estimates emissions from the following point sources: amine sweetening units, sulfur recovery units, reciprocating engines, combustion turbines, small external combustion devices, flares, liquid hydrocarbon storage tanks, truck loading, miscellaneous process vents, and fugitives.

Emissions are estimated with factors derived from data collected during various GRI Environment and Safety research programs or by the U.S. Environmental Protection Agency (EPA). The GRI Literature database, developed during Phase I of the Air Toxics Program (1990 to 1992), compiled available emission test results from 40 reciprocating engines, 2 gas turbines, and 1 steam generator. The GRI Field Test database, developed from 1994 to 1997, contains GRI test data from 26 engines, 9 gas turbines, and 8 external combustion devices operating at several natural gas transmission, storage, and processing facilities. EPA emission factors are obtained from AP-42, 5th Edition [U.S. Environmental Protection Agency].

Since data are not available for all pollutants for some of the emission factor sets, a hierarchical combination of EPA > GRI Field > GRI Literature was used. Emission factors are prioritized in the listed order.

Engine 2701/2702 HAP Emission Factors and Emissions

Chemical	EF g/bhp-hr	tpy	lbs/hour	Factor Set
Formaldehyde	0.0146323	1.02	0.23224748	EPA
Acetaldehyde	0.0003443	0.02	0.00546481	EPA
1,3-Butadiene	0.0000019	0.00	0.00003016	EPA
Acrolein	0.000034	0.00	0.00053966	EPA
Propional	0.000865	0.06	0.01372949	GRI Field
Propylene Oxide	0.0001248	0.01	0.00198086	EPA
n-Nitrosodimethylamine	0.000001	0.00	0.00001587	EPA
Benzene	0.0006025	0.04	0.00956303	EPA
Toluene	0.0005595	0.04	0.00888052	EPA
Ethylbenzene	0.0001033	0.01	0.0016396	EPA
Xylenes(m,p,o)	0.0001162	0.01	0.00184436	EPA
2,2,4-Trimethylpentane	0.0016053	0.11	0.02547972	GRI Field
n-Hexane	0.0015058	0.10	0.02390043	GRI Field
Phenol	0.0001101	0.01	0.00174753	GRI Field
n-Nitrosomorpholine	0.000001	0.00	0.00001587	EPA
Naphthalene	0.0006025	0.04	0.00956303	EPA
2-Methylnaphthalene	0.0000013	0.00	0.00002063	GRI Field
Biphenyl	0.0003305	0.02	0.00524578	GRI Field
Phenanthrene	0.0000005	0.00	0.00000794	GRI Field
Chrysene	0.000001	0.00	0.00001587	GRI Field
Beryllium	0.0000001	0.00	0.00000159	GRI Field
Phosphorous	0.0000652	0.00	0.00103487	GRI Field
Chromium	0.0000056	0.00	0.00008888	EPA
Chromium	0.0000082	0.00	0.00013015	GRI Field
Manganese	0.0000069	0.00	0.00010952	EPA
Nickel	0.0000061	0.00	0.00009682	GRI Field
Cobalt	0.0000016	0.00	0.0000254	GRI Field
Arsenic	0.0000002	0.00	0.00000317	EPA
Selenium	0.0000003	0.00	0.00000476	GRI Field
Cadmium	0.0000036	0.00	0.00005714	EPA
Mercury	0.0000019	0.00	0.00003016	EPA
Lead	0.0000689	0.00	0.0010936	EPA
TOTALS:	0.0217114	1.51	0.3446087	

Fugitive Leak Emissions

Component	Service	Component	Emissions *	NM/NE	Emissions
		Count	Factor (ton/yr)	Fraction	(ton/yr)
Valves	Gas	196	0.0434606	0.05	0.43
Connector	Gas	0	0.0019316	0.05	0.00
Flanges	Gas	228	0.0037666	0.05	0.04
Open-Ended Line	Gas	70	0.0193158	0.05	0.07
Pumps	Gas	2	0.023179	0.05	0.00
Other	Gas	0	0.0849895	0.05	0.00
Valves	Light Oil	22	0.0241448	1.00	0.53
Connector	Light Oil	0	0.0020282	1.00	0.00
Flanges	Light Oil	30	0.0010624	1.00	0.03
Open-Ended Line	Light Oil	1	0.0135211	1.00	0.01
Pumps	Light Oil	0	0.1255527	1.00	0.00
Other	Light Oil	0	0.0724343	1.00	0.00
Valves	Heavy Oil	30	0.0000811	1.00	0.00
Connector	Heavy Oil	0	0.0000724	1.00	0.00
Flanges	Heavy Oil	184	0.0000038	1.00	0.00
Open-Ended Line	Heavy Oil	3	0.0013521	1.00	0.00
Other	Heavy Oil	4	0.0002994	1.00	0.00
				TOTAL:	1.12

*EPA publication EPA-453/R-95-017, November 1995, "Protocol for Equipment Leak Emission Estimates"

Tank Emission Calculations

TANKS PROGRAM 3.1
EMISSIONS REPORT - SUMMARY FORMAT
TANK IDENTIFICATION AND PHYSICAL CHARACTERISTICS

07/05/01
PAGE 1

Identification

Identification No.: 27/cond01
City: Thonotosassa
State: FL
Company: FGT
Type of Tank: Vertical Fixed Roof
Description: Condensate Tank

Tank Dimensions

Shell Height (ft): 8.0
Diameter (ft): 9.5
Liquid Height (ft): 8.0
Avg. Liquid Height (ft): 4.5
Volume (gallons): 4242
Turnovers: 0.7
Net Throughput (gal/yr): 3000

Paint Characteristics

Shell Color/Shade: White/White
Shell Condition: Good
Roof Color/Shade: White/White
Roof Condition: Good

Roof Characteristics

Type: Cone
Height (ft): 0.00
Radius (ft) (Dome Roof): 0.00
Slope (ft/ft) (Cone Roof): 0.0625

Breather Vent Settings

Vacuum Setting (psig): -0.03
Pressure Setting (psig): 0.03

Meteorological Data Used in Emission Calculations: Tampa, Florida

(Avg Atmospheric Pressure = 14.7 psia)

TANKS PROGRAM 3.1
 EMISSIONS REPORT - SUMMARY FORMAT
 LIQUID CONTENTS OF STORAGE TANK

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 PAGE 2

Mixture/Component	Month	Daily Liquid Surf. Temperatures (deg F)			Liquid Bulk Temp. (deg F)	Vapor Pressures (psia)			Vapor Mol. Weight	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
		Avg.	Min.	Max.		Avg.	Min.	Max.					
Pipeline Condensate	All	74.01	68.83	79.19	72.02	0.7084	0.6246	0.8014	53.074			53.00	Option 4: RVP=1.40
Benzene						1.7012	1.4846	1.9432		0.0008	0.0019	78.11	Option 2: A=6.9050,
B=1211.033, C=220.790													
Ethylbenzene						0.1739	0.1467	0.2055		0.0006	0.0001	106.17	Option 2: A=6.9750,
B=1424.255, C=213.210													
Pipeline Condensate						0.7087	0.6249	0.8018		0.9950	0.9963	53.00	Option 4: RVP=1.40
Toluene						0.5036	0.4322	0.5847		0.0016	0.0011	92.13	Option 2: A=6.9540,
B=1344.800, C=219.480													
Xylene (-m)						0.2060	0.1741	0.2428		0.0010	0.0003	106.17	Option 2: A=7.0090,
B=1426.266, C=215.110													
Xylene (-o)						0.1156	0.0969	0.1372		0.0010	0.0002	106.17	Option 2: A=6.9980,
B=1474.679, C=213.690													

TANKS PROGRAM 3.1
 EMISSIONS REPORT - SUMMARY FORMAT
 INDIVIDUAL TANK EMISSION TOTALS

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 PAGE 3

Annual Emissions Report

Liquid Contents	Losses (lbs.):			Total
	Standing	Working		
Pipeline Condensate	25.39	2.01		27.41
Benzene	0.05	0.00		0.05
Ethylbenzene	0.00	0.00		0.00
Pipeline Condensate	25.30	2.01		27.30
Toluene	0.03	0.00		0.03
Xylene (-m)	0.01	0.00		0.01
Xylene (-o)	0.00	0.00		0.00
Total:	25.39	2.01		27.41

□

TANKS PROGRAM 3.1
EMISSIONS REPORT - SUMMARY FORMAT
TANK IDENTIFICATION AND PHYSICAL CHARACTERISTICS

07/05/01

PAGE 1

Identification

Identification No.: 27/oily01
City: Thonotosassa
State: FL
Company: FGT
Type of Tank: Vertical Fixed Roof
Description: Oily Water Tank

Tank Dimensions

Shell Height (ft): 8.0
Diameter (ft): 9.5
Liquid Height (ft): 8.0
Avg. Liquid Height (ft): 4.5
Volume (gallons): 4242
Turnovers: 0.7
Net Throughput (gal/yr): 3000

Paint Characteristics

Shell Color/Shade: White/White
Shell Condition: Good
Roof Color/Shade: White/White
Roof Condition: Good

Roof Characteristics

Type: Cone
Height (ft): 0.00
Radius (ft) (Dome Roof): 0.00
Slope (ft/ft) (Cone Roof): 0.0625

Breather Vent Settings

Vacuum Setting (psig): -0.03
Pressure Setting (psig): 0.03

Meteorological Data Used in Emission Calculations: Tampa, Florida

(Avg Atmospheric Pressure = 14.7 psia)

TANKS PROGRAM 3.1
 EMISSIONS REPORT - SUMMARY FORMAT
 LIQUID CONTENTS OF STORAGE TANK

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 PAGE 2

Mixture/Component	Month	Daily Liquid Surf. Temperatures (deg F)			Liquid Bulk Temp. (deg F)	Vapor Pressures (psia)			Vapor Mol. Weight	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
		Avg.	Min.	Max.		Avg.	Min.	Max.					
Lube Oil	All	74.01	68.83	79.19	72.02	0.0032	0.0026	0.0039	190.000			190.00	Option 1

TANKS PROGRAM 3.1
 EMISSIONS REPORT - SUMMARY FORMAT
 INDIVIDUAL TANK EMISSION TOTALS

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 PAGE 3

Annual Emissions Report

Liquid Contents	Losses (lbs.):			Total
	Standing	Working		
8Lube Oil	0.35	0.04		0.39
Total:	0.35	0.04		0.39