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 Co.
1400 Smith Street
Houston, TX 77002

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X D. Wyatt ☐ Agent ☐ Addressee

B. Received by (Printed Name) D. WYATT C. Date of Delivery 2-10-03

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. Article Number
(Transfer from service label) 7001 0320 0001 3692 6976

PS Form 3811, August 2001 Domestic Return Receipt 102595-02-M-1540

U.S. Postal Service
CERTIFIED MAIL RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

OFFICIAL USE

Postage	$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$

Postmark Here

Sent To Mr. Richard Craig
Street, Apt. No.; or PO Box No. 1400 Smith St.
City, State, ZIP+4 Houston, TX 77002

7001 0320 0001 3692 6976

PS Form 3800, January 2001 See Reverse for Instructions

SENDER: *COMPLETE THIS SECTION*

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- 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
Vice President of Southeastern Operations
Florida Gas Transmission Company
1400 Smith Street
Houston, TX 77002

COMPLETE THIS SECTION ON DELIVERY

A. Received by *(Please Print Clearly)* D. Wyatt — B. Date of Delivery 1-17-03

C. Signature
X D. Wyatt ☐ 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 7225

PS Form 3811, July 1999 Domestic Return Receipt 102595-00-M-0952

7001 0320 0001 3692 7225

U.S. Postal Service
CERTIFIED MAIL RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

OFFICIAL USE

Postage	$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$

Postmark Here

Sent To
Richard Craig
Street, Apt. No.; or PO Box No.
1400 Smith St.
City, State, ZIP+4
Houston, TX 77002

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
1400 Smith Street
Houston, TX 77002

COMPLETE THIS SECTION ON DELIVERY

A. Received by *(Please Print Clearly)* H.W. Watt — B. Date of Delivery 1-2-03

C. Signature — X H.W. Watt — ☐ 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 7454

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)

OFFICIAL USE

Postage	$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$

Postmark Here

7001 0320 0001 3692 7454

Sent To Richard Craig
Street, Apt. No., or PO Box No. 1400 Smith Street
City, State, ZIP+4 Houston, TX 77002

PS Form 3800, January 2001 See Reverse for Instructions

Florida Department of Environmental Protection

Memorandum

TO: Michael G. Cooke, Division of Air Resources Management

THRU: Trina Vielhauer, Bureau of Air Regulation
Al Linero, New Source Review Section

FROM: Jeff Koerner, New Source Review Section

DATE: October 3, 2003

SUBJECT: Extension of Permit Expiration Date
Air Permit No. 1230034-011-AC
Florida Gas Transmission Company
Station No. 15 in Taylor County, Florida

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 a 6-month extension of the air construction permit that authorizes an up-rate for existing Engine 1507. The new schedule is to begin construction in October of 2003. FGTC requests a 6-month extension to complete construction, perform the required emissions tests, and submit an application to revise the Title V air operation permit accordingly.

Day 74 is December 6, 2003. I recommend your approval and signature.

Attachments

Department of Environmental Protection

Jeb Bush
Governor

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

David B. Struhs
Secretary

October 3, 2003

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Richard Craig, V.P. of Southeast Operations
Florida Gas Transmission Company
1400 Smith Street
Houston, TX 77002

Re: Extension of Air Construction Permit Expiration Date
Taylor Compressor Station No. 15
Air Permit No. 1230034-011-AC

Dear Mr. Craig:

On September 24, 2003, Florida Gas Transmission Company (FGTC) submitted a request for a 6-month extension of air construction Permit No. 1230034-011-AC for existing Station No. 15 located near Perry in Taylor County, Florida. Specifically, the planned up-rate of existing Engine 1507 has been delayed. The new schedule is to begin construction in October of 2003. FGTC requests a 6-month extension to complete construction, perform the required emissions tests, and submit an application to revise the Title V air operation permit accordingly.

The Department approves the request. The permit is hereby extended from **December 31, 2003 to July 1, 2004** to up-rate 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 of the Florida Statutes (F.S.).

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.

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, 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 10/15/03 to the persons listed:

Mr. Richard Craig, FGTC*
Mr. Jacob Krautsch, FGTC
Mr. Kevin McGlynn, McGlynn Consulting Co.
Mr. V. Duane Pierce, AQMcs
Mr. Chris Kirts, NED

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 (Clerk) October 15, 2003 (Date)

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. RichardCraig
Vice President, Southeast Operations
Florida Gas Transmission Company
1400 Smith Street
Houston, TX 77002

COMPLETE THIS SECTION ON DELIVERY

A. Received by *(Please Print Clearly)* T Brozoyna
B. Date of Delivery 10/20/?
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

2. Article Number *(Copy from service label)*
7099 3400 0000 1449 4123

PS Form 3811, July 1999 Domestic Return Receipt 102595-99-M-1789

U.S. Postal Service
CERTIFIED MAIL RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

7099 3400 0000 1449 4123

Article Sent To:

Postage	$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$

Postmark Here

Name (Please Print Clearly) (to be completed by mailer)
Richard Craig
Street, Apt. No.; or PO Box No.
1400 Smith Street
City, State, ZIP+4
Houston, TX 77002

PS Form 3800, July 1999 See Reverse for Instructions

Florida Gas Transmission Company

1967 Commonwealth Lane, Tallahassee, FL 32303, (850) 350-5000, Fax Downstairs (850) 350-5001

September 22, 2003

UPS 2nd Day – 1Z F62 059 37 1000 717 2

Mr. Jeff Koerner, P.E.
New Source Review Section
Bureau of Air Regulation
Florida Department of Environmental Protection
Twin Towers Office Bldg.
2600 Blairstone Road
Tallahassee, FL 32399-2400

Reference: Permit No. 1230034-011-AC
Compressor Station No. 15, Taylor County

Dear Mr. Koerner:

Subject: Extension of Construction Permit Expiration

It will not be possible for Florida Gas Transmission Company (FGT) to complete the modifications to this facility, perform the required initial emissions compliance test and apply for a Title V operating permit modification at least 90 days before the expiration date. Construction is currently scheduled to begin in October 2002. FGT hereby requests a 180-day extension for the above referenced construction permit in order to complete the construction, perform the required 40 CFR Subpart GG emissions test and to submit an application for the Title V operating permit.

If you have any questions or need additional information, please call me at (850) 350-5042.

Sincerely,

Jacob Krautsch
Environmental Specialist

CC: Compressor Station No. 12
V. Duane Pierce, AQMcs, LLC
Tallahassee Files
Envision Env. 3.1.20

SENDER: *COMPLETE THIS SECTION*	*COMPLETE THIS SECTION ON DELIVERY*
■ 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)* T Broadyway B. Date of Delivery 10/20/3 C. Signature X [signature] ☑ Agent ☐ Addressee D. Is delivery address different from item 1? ☐ Yes If YES, enter delivery address below: ☐ No
1. Article Addressed to: Mr. RichardCraig Vice President, Southeast Operations Florida Gas Transmission Company 1400 Smith Street Houston, TX 77002	3. Service Type ☒ Certified Mail ☐ Express Mail ☐ Registered ☐ Return Receipt for Merchandise ☐ Insured Mail ☐ C.O.D. 4. Restricted Delivery? *(Extra Fee)* ☐ Yes
2. Article Number *(Copy from service label)* 7099 3400 0000 1449 4123	

PS Form 3811, July 1999 Domestic Return Receipt 102595-99-M-1789

7099 3400 0000 1449 4123

U.S. Postal Service
CERTIFIED MAIL RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

Article Sent To:

Postage	$	Postmark Here
Certified Fee		
Return Receipt Fee (Endorsement Required)		
Restricted Delivery Fee (Endorsement Required)		
Total Postage & Fees	$	

Name (Please Print Clearly) (to be completed by mailer)
Richard Craig
Street, Apt. No.; or PO Box No.
1400 Smith Street
City, State, ZIP+4
Houston, TX 77002

PS Form 3800, July 1999 See Reverse for Instructions

Department of Environmental Protection

Jeb Bush
Governor

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

David B. Struhs
Secretary

February 5, 2003

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Richard Craig, V.P. of Southeast Operations
Florida Gas Transmission Company
1400 Smith Street
Houston, TX 77002

Re: Extension of Air Construction Permit Expiration Date
Taylor Compressor Station No. 15
Air Permit No. 1230034-009-AC

Dear Mr. Craig:

On January 30, 2002, Florida Gas Transmission Company (FGTC) requested an extension of the expiration date for air construction Permit No. 1230034-009-AC for existing Station No. 15 located near Perry in Taylor County, Florida. Unit 1508 is a Rolls Royce Model No. 01-KC7-DLE gas turbine. Due to safety concerns, the manufacturer removed the 14th stage bleed valve from all units. Rolls Royce indicates that CO emissions may increase at low loads due to removal of the bleed valve. FGTC expects a complete solution and repair by the end of this March. Therefore, FGTC requests a 6-month extension of the air construction permit for additional time to operate Unit 1508 and allow sufficient time to correct the bleed valve problem, conduct testing at low loads, and submit a complete Title V application to operate. The Department approves the request to extend the permit in accordance with the following additional requirements.

- The expiration date of Permit No. 1230034-009-AC is extended from **April 1, 2003** to **December 31, 2003** to operate the unit and allow sufficient time to correct the bleed valve problem, conduct testing at low loads, and submit a complete Title V application to operate.
- Until required tests conducted at full load demonstrate compliance, Unit 1508 shall operate no less than 80% of the maximum operating rate specified in the permit except for startup and shutdown.
- By February 21, 2003, the permittee shall submit a final report of the tests conducted at full load operation on January 7, 2003.
- Within 30 days of repairing the bleed valve, but no later than May 21, 2003, the permittee shall conduct tests at low loads as required by the permit.

This permitting action does not authorize any new construction. 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 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.

Howard L. Rhodes, 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 2/6/03 to the persons listed:

Mr. Richard Craig, FGTC*
Mr. Jim Thompson, FGTC
Mr. Jim Burrow, FGTC
Mr. Kevin McGlynn, McGlynn Consulting Co.
Mr. V. Duane Pierce, AQMcs
Mr. Chris Kirts, NED

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.

Barbara J. Friday 2/6/03
(Clerk) (Date)

Facility

Florida Gas Transmission Company
Compressor Station No. 15
Taylor County, Florida

Project: Permit Extension for Unit No. 1508

Background

The Florida Gas Transmission Company (FGTC) operates Station No. 15, an existing natural gas compressor station that is located on Pisgah Road approximately 1 mile east of U.S. Highway 19 near Perry in Taylor County, Florida. The station consists of the following emissions units:

EU-001: Five 2000 bhp reciprocating internal combustion engines, Units 1 through 5

EU-002: One 4000 bhp reciprocating internal combustion engine, Unit 6

EU-003: Permanently shutdown

EU-004: One new 7200 bhp gas turbine, Unit 8 (Cooper-Rolls Model 01-KC7-DLE)

EU-005: Miscellaneous small unregulated emissions units and activities

EU-006: One new 13,000 bhp gas turbine, Unit 1507 (Solar Model No. Mars 100 T-15000S)

Recent permitting actions for this station include the following:

- In October of 2001, Permit No. 1230034-007-AC authorized the construction of Unit 1508 and the up-rating of existing Unit 1507 to 13,000 bhp.
- In April of 2002, Permit No. 1230034-007-AC was extended from October 1, 2002 to April 1, 2003.
- In July of 2002, Permit No. 1230034-009-AC was issued to modify and supersede Permit No. 1230034-007-AC. It allowed the complete replacement of Unit 1507 rather than an up-rating for the existing equipment. An evaluation showed that PSD preconstruction review did not apply. The permit expiration date remained at April 1, 2003.
- In January of 2003, Permit No. 1230034-011-AC was issued to up-rate Unit 1507 to 15,000 bhp and revise the PM standard for existing Unit 1506. Again, an evaluation showed that PSD preconstruction review did not apply to the combination of recent projects.

Project Request

On January 30, 2003, FGTC requested an extension of Permit No. 1230034-009-AC to provide additional time to repair Unit 1508, conduct all required testing, and submit a complete Title V application to operate. The 14th stage bleed valve on an identical Cooper-Rolls Model 01-KC7-DLE gas turbine failed catastrophically and sprayed oil over the entire building enclosure. Due to safety concerns, the manufacturer (Rolls Royce) removed this bleed valve from all units. Rolls Royce indicates that CO emissions may increase at low loads due to removal of the bleed valve. FGTC expects a complete solution and repair by the end of this March. Therefore, FGTC requests a 6-month extension of the air construction permit.

Review

Unit 1508 began operation on November 22, 2002. Permit No. 1230034-009-AC requires initial testing for CO and NOx emissions at full load and additional NOx testing at low loads to satisfy NSPS testing provisions. Tests were conducted on January 7, 2003 for CO, NOx, and visible emissions under full load conditions (98% of permitted capacity). However, low load tests were postponed due to the problems with the bleed valve. The full load tests indicate the following preliminary results:

CO Emissions:

4.9 ppmvd @ 15% O_2 (Permit limit is 50 ppmvd @ 15% O_2.)
0.9 lb/hour (Permit identifies maximum rate as 7.0 lb/hour.)

NOx Emissions:

14.8 ppmvd @ 15% O_2 (Permit limit is 25.0 ppmvd @ 15% O_2.)
4.3 lb/hour (Permit identifies maximum rate as 5.7 lb/hour.)

Visible Emissions:

0% opacity (Permit limit is 10% opacity.)

Although the values in the final report may change slightly, it is not expected to affect the compliance status at full load operation. FGTC currently operates Unit 1508 at full load except for startups and shutdowns.

Conclusion

The preliminary results of the tests conducted at full load easily demonstrate compliance with the permit standards. The preliminary test results show that emissions are less than 10% of the NSPS Subpart GG standard for NOx emissions (190 ppmvd @ 15% O_2). Therefore, the Department will extend the air construction permit subject to the following additional requirements:

- The expiration date of Permit No. 1230034-009-AC is extended from **April 1, 2003** to **December 31, 2003** to operate the unit and allow sufficient time to correct the bleed valve problem, conduct testing at low loads, and submit a complete Title V application to operate.
- Until required tests conducted at full load demonstrate compliance, Unit 1508 shall operate no less than 80% of the maximum operating rate specified in the permit except for startup and shutdown.
- By February 21, 2003, the permittee shall submit a final report of the tests conducted at full load operation on January 7, 2003. *{Note: By rule, test reports must be submitted within 45 days of the date conducted.}*
- Within 30 days of repairing the bleed valve, but no later than May 21, 2003, the permittee shall conduct tests at low loads as required by the permit. *{By permit condition and rule, required tests must be conducted within 180 days of initial startup.)*

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.
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1. Article Addressed to:

Mr. Richard Craig
V.P. of Southeast Operations
Florida Gas Transmission Co.
1400 Smith Street
Houston, TX 77002

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X J. Wyatt ☐ Agent ☐ Addressee

B. Received by (Printed Name) J. WYATT C. Date of Delivery 2-10-03

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. Article Number
(Transfer from service label) 7001 0320 0001 3692 6976

PS Form 3811, August 2001 Domestic Return Receipt 102595-02-M-1540

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Sent To
Mr. Richard Craig
Street, Apt. No.; or PO Box No. 1400 Smith St.
City, State, ZIP+4 Houston, TX 77002

PS Form 3800, January 2001 See Reverse for Instructions

7001 0320 0001 3692 6976

Preliminary Results
Unit 1508
Full Load Testing

Company: Florida Gas Transmission Company
Facility: Compressor Station No. 15
Location: Perry, Taylor County, Florida
Source: Cooper-Rolls Model 501-KC7-DLE
Technicians: LJB, JTH

Test Number	**1508-100%-1**	**1508-100%-2**	**1508-100%-3**		
Date	1/7/03	1/7/03	1/7/03		
Start Time	10:50	12:05	13:15		**FDEP**
Stop Time	11:50	13:05	14:15		**Permit**
Turbine/Compressor Operation		**Full Load**		*Averages*	**Limits**
Gas Generator Speed (N1, rpm)	14577	14578	14564	*14573*	
Power Turbine Speed (N3, rpm)	13699	13778	13781	*13752*	
Turbine Load (Compressor Shaft Horsepower, bhp)	7,568	7,416	7,275	*7,420*	
Turbine Capacity (from manufacturer's curve data)	7,676	7,554	7,479	*7,570*	
Percent Load (% of maximum BHP output)	98.6%	98.2%	97.3%	*98.0%*	
Gas Generator Discharge Pressure (PCD, psig)	183.7	180.8	178.7	*181.1*	
Turbine Air Inlet Temperature (°F)	47.9	52.4	55.1	*51.8*	
Gas Generator Exhaust Temperature (°F)	1390.8	1394.3	1395.3	*1393.5*	
Gas Compressor Suction Pressure (psig)	815	800	794	*803*	
Gas Compressor Suction Temperature (°F)	58.4	58.6	58.8	*58.6*	
Gas Compressor Discharge Pressure (psig)	1148	1148	1142	*1146*	
Gas Compressor Discharge Temperature (°F)	109.6	112.3	113.0	*111.6*	
Compressor Flow (MMSCFD)	457	426	415	*433*	
Turbine Fuel Data (Natural Gas)					
Fuel Heating Value (Btu/lb, HHV)	23054	23054	23054	*23054*	
Fuel Specific Gravity	0.5880	0.5880	0.5880	*0.5880*	
O_2 "F-factor" (DSCFex/MMBtu @ 0% excess air)	8644	8644	8644	*8644*	
CO_2 "F-factor" (DSCFex/MMBtu @ 0% excess air)	1028	1028	1028	*1028*	
Total Sulfur in Fuel (grains S per 100 SCF of NG)	0.089	0.089	0.089	*0.089*	**10**
Fuel Flow (lbs/hr)	2928.8	2898.8	2880.0	*2902.5*	
Heat Input (MMBtu/hr, Higher Heat Value)	67.52	66.83	66.40	*66.92*	
Ambient Conditions					
Atmospheric Pressure ("Hg)	30.29	30.23	30.20	*30.24*	
Temperature (°F): Dry bulb	48.8	53.0	55.0	*52.3*	
(°F): Wet bulb	41.5	42.8	44.0	*42.8*	
Humidity (lbs moisture/lb of air)	0.0037	0.0033	0.0034	*0.0035*	
Measured Emissions					
NO_X (ppmv, dry basis)	14.10	13.94	13.89	*13.98*	
NO_X (ppmv, dry @ 15% O_2)	**14.9**	**14.8**	**14.7**	*14.8*	**25.0**
NO_X (ppmv @ 15% O_2, ISO Day)	14.5	14.2	14.0	*14.3*	
CO (ppmv, dry basis)	7.41	3.45	2.94	*4.60*	
CO (ppmv, dry @ 15% O_2)	**7.82**	**3.68**	**3.12**	*4.87*	**50.0**
O_2 (% volume, dry basis)	15.31	15.36	15.34	*15.33*	
CO_2 (% volume, dry basis)	3.27	3.27	3.27	*3.27*	
Visible Emissions (%Opacity)	0	-	-	*0*	**10**
F_O (fuel factor, range = 1.600-1.836 for NG)	1.71	1.69	1.70	*1.70*	
Stack Volumetric Flow Rates					
via EPA Methods 1-4 (SCFH, pitot tube flow)	2.62E+06	2.62E+06	2.51E+06	*2.58E+06*	
via O_2 "F_d-factor" (SCFH, dry basis)	2.18E+06	2.18E+06	2.16E+06	*2.17E+06*	
via CO_2 "F_c-factor" (SCFH, dry basis)	2.12E+06	2.10E+06	2.09E+06	*2.10E+06*	
Calculated Emission Rates (via EPA Method 19)					
NO_X (lbs/hr)	**4.41**	**4.37**	**4.16**	*4.31*	**5.7**
CO (lbs/hr)	**1.41**	**0.659**	**0.536**	*0.868*	**7.0**
SO_2 (lbs/hr, based on fuel flow and fuel sulfur)	0.0079	0.0078	0.0078	*0.0078*	**1.70**
NO_X (tons/yr)	19.3	19.1	18.2	*18.9*	**24.97**
CO (tons/yr)	6.18	2.89	2.35	*3.80*	**30.66**
SO_2 (tons/yr, based on fuel flow and fuel sulfur)	0.035	0.034	0.034	*0.034*	**7.45**

Testing by Cubix Corporation - Austin, Texas - Gainesville, Florida

Memorandum

Florida Department of
Environmental Protection

TO: Howard Rhodes, Division of Air Resources Management

THRU: Trina Vielhauer, Bureau of Air Regulation
Al Linero, New Source Review Section

FROM: Jeff Koerner, New Source Review Section

DATE: February 5, 2003

SUBJECT: Extension of Permit Expiration Date
Air Permit No. 1230034-009-AC
Florida Gas Transmission Company
Station No. 15, Taylor County

Attached for your approval and signature is a modification that extends the permit expiration date for the above referenced project. The extension will allow Florida Gas Transmission to continue to operate Unit 1508 gas turbine and provide sufficient time to correct a problem with the 14th stage bleed valve, conduct additional required tests at low loads, and submit a complete Title V application to operate. Preliminary tests at full load operation easily show compliance with the permit standards.

Day 74 is April 13, 2003. I recommend your approval and signature.

Attachments

Florida Gas Transmission Company

Capital Projects Field Office, 111 Kelsey Lane, Ste. A., Tampa, FL 33619
813.655.7441 / 800.381.1477

January 31, 2003

Mr. Jeff Koerner, P.E.
New Source Review Section
Bureau of Air Regulation
Florida Department of Environmental Protection
Twin Towers Office Bldg.
2600 Blairstone
Tallahassee, FL 32399-2400

Reference: Email Request for Additional Information, 31 January 2003
Project No. 1230034-009-AC
Compressor Station No. 15 (Taylor County), Phase V Modification

Dear Mr. Koerner:

Subject: Response to Request for Additional Information

This is being sent in response to your email request for information concerning the above referenced permit and a request from Florida Gas Transmission Company (FGT) to extend the expiration date.

FGT has not performed the initial performance test on Unit 1508 since it cannot be run at low loads. This is due to the removal of the 14th Stage Bleed Valve. Rolls Royce has removed these from all of the 501 KC-7 turbines for safety reasons. The bleed valve on Unit 1607 had a catastrophic failure and sprayed oil over the entire engine building interior. The FDEP District Offices have been informed of this problem.

FGT has been working with Rolls Royce to fix the problem. The Project Team expects the valve to be repaired by the end of March. FGT will test the turbine as soon as possible after it is fixed.

Work for the actual Phase VI upgrade for Unit 1507 will not start before March. The work on the unit should take little time.

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: Jake Krautsch, FGT
V. Duane Pierce, Ph.D., AQMcs, LLC

Adams, Patty

From: Koerner, Jeff
Sent: Friday, January 31, 2003 8:41 AM
To: Jim Thompson (E-mail)
Cc: Jacob Krautsch (E-mail); V. Duane Pierce (E-mail)
Subject: Station 15 - Request for Extension of Permit No. 1230034-009-AC (Engine 1508)

Jim,

I received your request for an extension of Permit No. 1230034-007-AC. My records show that Permit No. 1230034-**009**-AC is the current valid air construction permit for this unit based on the following history:

- Original AC Permit: Permit No. 1230034-007-AC was issued in October of 2002 for Engines 1507 and 1508.
- First Extension: The expiration date of Permit No. 1230034-007-AC was extended from October 1, 2002 to April 1, 2003.
- Modification: Permit No. 1230034-009-AC was issued in July of 2002 and supersedes Permit No. 1230034-007-AC. (Nevertheless, it has the same expiration date of April 1, 2003.)
- Permit No. 1230034-011-AC was issued in January of 2003 and is now the current valid air construction permit for Engine 1507 (and revises the PM standard for Enginer 1506).

It's my understanding that Engine 1508 is up and running at full load and that initial emissions performance tests have been conducted. Please provide the following:

- Summary of each CO and NOx test that has been performed on Engine 1508.
- Scope of work yet to be performed on Engine 1508.
- Estimated schedule to perform remaining work.

Thanks!

Jeff Koerner
New Source Review Section
850/921-9536

Florida Gas Transmission Company

Capital Projects Field Office, 111 Kelsey Lane, Ste. A., Tampa, FL 33619
813.655.7441 / 800.381.1477

January 27, 2003

Mr. Jeff Koerner, P.E.
New Source Review Section
Bureau of Air Regulation
Florida Department of Environmental Protection
Twin Towers Office Bldg.
2600 Blairstone Road
Tallahassee, FL 32399-2400

Reference: Permit No. 1230034-007-AC
Compressor Station No. 15, Taylor County

Dear Mr. Koerner:

Subject: Extension of Construction Permit Expiration

The above referenced construction permits has an expiration date of April 1, 2003. Due to problems with the Rolls Royce Model 501 KC-7 (Engine 1508), it will not be possible for Florida Gas Transmission Company (FGT) to complete the modifications to this facility, perform the required initial emissions compliance test and apply for a Title V operating permit at least 120 days before the expiration date.

The problems are associated with the 14th Stage Bleed Valve. These have been removed from all FGT Rolls Royce Model 501 KC-7 engines due to a safety issue. This valve is required for the turbine to be able to operate properly at lower loads. The units are currently being operated at full load only. FGT is currently working with Rolls Royce to resolve this problem as quickly as possible.

FGT requests a 180-day extension to the referenced construction permit in order to complete construction, perform the required initial emissions performance test and to submit an application for the Title V operating permits.

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: Jake Krautsch
Duane Pierce

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

NOTICE OF FINAL PERMIT

In the Matter of an
Application for Permit by:

Florida Gas Transmission Company
1400 Smith Street
Houston, TX 77002

Air Permit No. 1230034-011-AC
Compressor Station No. 15
Taylor County, Florida

Authorized Representative:
Mr. Richard Craig, V.P. of Southeastern Operations

Enclosed is Final Air Permit No. 1230034-011-AC, which authorizes up-rating of new gas turbine Compressor Engine No. 1507 from 13,000 bhp to 15,000 bhp and revises the particulate matter requirements for Compressor Engine No. 1506. The equipment is installed at existing Compressor Station No. 15, which is located on Pisgah Road approximately 1 mile east of U.S. Highway 19 near Perry in Taylor County, Florida. As noted in the Final Determination (attached), only minor changes were made to correct typographical errors. 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.

Trina L Vielhauer

Trina Vielhauer, 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 1/13/03 to the persons listed:

Mr. Richard Craig, FGTC*
Mr. Jim Thompson, FGTC
Mr. Jim Burrow, FGTC
Mr. Kevin McGlynn, McGlynn Consulting Co.
Mr. V. Duane Pierce, AQMcs
Mr. Chris Kirts, NED

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 / January 13, 2003
(Clerk) (Date)

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
Vice President of Southeastern Operations
Florida Gas Transmission Company
1400 Smith Street
Houston, TX 77002

COMPLETE THIS SECTION ON DELIVERY

A. Received by *(Please Print Clearly)* J. Watt — B. Date of Delivery 1-17-03

C. Signature
X J. Watt ☐ 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
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☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? *(Extra Fee)* ☐ Yes

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PS Form 3811, July 1999 — Domestic Return Receipt — 102595-00-M-0952

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Sent To
Richard Craig
Street, Apt. No.; or PO Box No. 1400 Smith St.
City, State, ZIP+4
Houston, TX 77002

PS Form 3800, January 2001 — See Reverse for Instructions

7001 0320 0001 3692 7225

PERMITTEE

Florida Gas Transmission Company
1400 Smith Street
Houston, TX 77002

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. 1230034-011-AC
Taylor Compressor Station No. 15

This permit authorizes the up-rating of new gas turbine Compressor Engine No. 1507 from 13,000 bhp to 15,000 bhp and revises the particulate matter requirements for Compressor Engine No. 1506. The equipment is installed at existing Compressor Station No. 15, which is located on Pisgah Road approximately 1 mile east of U.S. Highway 19 near Perry in Taylor County, Florida.

NOTICE, PUBLICATION, AND ADMINISTRATIVE PROCEDURES

The Department distributed an "Intent to Issue Permit" package on December 10, 2002. The applicant published the "Public Notice of Intent to Issue" in the Tallahassee Democrat on December 15, 2002. The Department received the proof of publication on December 19, 2002. No requests for administrative hearings were filed.

COMMENTS

No comments on the Draft Permit were received.

CONCLUSION

The final action of the Department is to issue the permit with only minor revisions to correct typographical errors.

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
1400 Smith Street
Houston, TX 77002

Authorized Representative:
Mr. Richard Craig, V.P. of Southeast Operations

Taylor Compressor Station No. 15
Air Permit No. 1230034-011-AC
Facility ID No. 1230034
SIC No. 4922
Permit Expires: December 31, 2003

PROJECT AND LOCATION

This permit authorizes the up-rating of new gas turbine Compressor Engine No. 1507 from 13,000 bhp to 15,000 bhp and revises the particulate matter requirements for Compressor Engine No. 1506. The equipment is installed at existing Compressor Station No. 15, which is located on Pisgah Road approximately 1 mile east of U.S. Highway 19 near Perry in Taylor County, Florida. The UTM coordinates are Zone 17, 249.02 km East, and 3339.60 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

Howard L. Rhodes 1/10/03

Howard L. Rhodes, Director (Date)
Division of Air Resources Management

FACILITY AND PROJECT DESCRIPTION

The existing facility operates as a compressor station in Taylor County for Florida Gas Transmission Company's natural gas pipeline. It consists of five 2000 bhp reciprocating internal combustion engines, one 4000 bhp reciprocating internal combustion engine, a 15,000 gas turbine compressor engine, a 7200 bhp gas turbine compressor engine, and miscellaneous support equipment. This project affects only the following emissions units.

ID	Emission Unit Description
002	**Compressor Engine No. 1506** – Existing 4000 bhp gas-fired reciprocating internal combustion engine (Cooper Bessemer Model No. 8W-330-C2) operating as a compressor engine.
003	**INACTIVE** - Formerly identified as Compressor Engine 1507, this Solar Model No. Mars 90 T-13000S gas turbine has been removed.
006	**Compressor Engine No. 1507** - New 15,000 bhp gas turbine (Solar Model No. Mars 100 T-13000S) installed as a compressor engine subject to the conditions of this permit.

REGULATORY CLASSIFICATION

Title III: The facility is 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 a Title V major source of air pollution (Chapter 213, F.A.C.).

PSD: The facility is a PSD-major source of air pollution (Rule 62-212.400, F.A.C.).

NSPS: The facility operates units subject to the New Source Performance Standards (40 CFR 60).

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.

- Request to revise particulate emission rates for Engine 1506 (EU-002) received on 11/21/02;
- Permit application received on 11/06/02;
- Permit No. 1230034-009-AC previously issued on 07/03/02; and
- Permit No. 1230034-007-AC previously issued on 10/26/01.

SECTION 2. ADMINISTRATIVE REQUIREMENTS

1. Permitting Authority: All documents related to PSD preconstruction review shall be submitted to the Department's Bureau of Air Regulation at 2600 Blair Stone Road (MS #5505), Tallahassee, Florida 32399-2400. All other applications for permits to construct, modify, or operate emissions units shall be submitted to the Department's Northeast District Office at 7825 Baymeadows Way, Suite 200B, Jacksonville, Florida 32256-7590 and phone number 904/807-3300.

2. Compliance Authority: All documents related to compliance activities such as reports, tests, and notifications shall be submitted to the Department's Northeast District Office at the above address.

3. Appendices: The following Appendices are attached as part of this permit: 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); and Appendix SC (Standard Conditions).

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. Source Obligation: This project is subject to Rule 62-212.400(2)(g), F.A.C., which states, "If a previously permitted facility or modification becomes a facility or modification which would be subject to the preconstruction review requirements of this rule if it were a proposed new facility or modification solely by virtue of a relaxation in any federally enforceable limitation on the capacity of the facility or modification to emit a pollutant (such as a restriction on hours of operation), which limitation was established after August 7,1980, then at the time of such relaxation the preconstruction review requirements of this rule shall apply to the facility or modification as though construction had not yet commenced on it." This includes, but is not limited to, increases in the heat input rates or pollutant emission rates. [Rule 62-212.400(2)(g), F.A.C.]

8. Title V Permit: This permit authorizes construction of the permitted emissions units and initial operation to determine compliance with Department rules. A Title V operation permit is required for regular operation of the permitted emissions unit. The permittee shall apply for a Title V operation permit at least 90 days prior to expiration of this permit, but no later than 180 days after commencing operation. To apply for a Title V operation permit, the applicant shall submit the appropriate application form, compliance test results, and such additional information as the Department may require by law. The application shall be submitted to the appropriate Permitting Authority with copies to the Compliance Authority. [Rules 62-4.030, 62-4.050, 62-4.220, and Chapter 62-213, F.A.C.]

A. EU 002 - 4000 bhp Reciprocating Compressor Engine No. 1507

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

Emissions Unit No. 005 - Compressor Engine No. 1506
The existing compressor engine is a 4000 bhp reciprocating internal combustion engine fired exclusively with pipeline natural gas.

APPLICABLE REQUIREMENT

1. Previous Permits: This permit supplements all previously issued air construction and operation permits for this emissions unit. Except for the change noted below, the unit remains subject to the conditions of all other valid air construction and operations permits. [Rule 62-4.070, F.A.C.]

2. Particulate Matter: For Compressor Engine No. 1506 (EU 002), particulate matter emissions are minimized by good combustion design with the firing of natural gas as the exclusive fuel. This requirement supersedes the particulate matter standards (TSP and PM_{10}) in Condition No. 1 of Air Permit No. PSD-FL-160, as amended. *{Permitting Note: This change does not result in any increases in actual emissions of particulate matter. All other standards of Air Permit No. PSD-FL-160 remain unaffected.}*

B. EU 006 - 15,000 bhp Gas Turbine Compressor Engine No. 1507

This section of the permit addresses the following emissions unit.

Emissions Unit No. 006 - Compressor Engine No. 1507
Description: The new gas turbine is a Solar Mars 100 T-15000S that will be used as a compressor engine for the natural gas pipeline.
Fuel: The gas turbine fires only natural gas (SCC No 2-02-002-01). The maximum natural gas firing rate is approximately 118,200 cubic feet per hour based on a heating value of 1040 BTU per SCF of gas.
Capacity: At 123 MMBtu per hour of heat input, the gas turbine produces approximately 15,000 bhp (ISO). The gas turbine typically operates near capacity.
Controls: Lean premix combustion technology reduces NOx emissions. The efficient combustion of natural gas at high temperatures minimizes emissions of CO, PM/PM_{10}, SO_2, and VOC.
Stack Parameters: When operating at capacity, exhaust gases exit a rectangular stack (7.55 feet by 7.55 feet) that is 60 feet tall with a flow rate of approximately 191,800 acfm at 910° F.

APPLICABLE STANDARDS AND REGULATIONS

1. NSPS Requirements: The 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 determines 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. Emissions Unit 003: The existing Solar Mars 90 T-13000S gas turbine shall be permanently shutdown and removed from the site. The shutdown unit will be replaced by Emissions Unit 006, which will be identified as Compressor Engine No. 1507. [Applicant Request; Rule 62-212.400(PSD), F.A.C.]

3. New Compressor Engine No. 1507: The permittee is authorized to install a new Solar Mars 100 T-15000S gas turbine that is rated at 15,000 bhp (ISO). The permittee shall tune, operate and maintain the gas turbine's lean premix combustion system to reduce emissions of nitrogen oxides below the permitted limits. Ancillary equipment includes the automated gas turbine control system, an inlet air filtration system, and an exhaust stack. [Applicant Request]

PERFORMANCE RESTRICTIONS

4. Permitted Capacities: The maximum heat input rate to the gas turbine shall not exceed 123 MMBtu per hour while producing approximately 15,000 bhp 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 the 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.]

5. Authorized Fuel: The 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.]

6. Restricted Operation: The hours of operation for the 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.]

B. EU 006 - 15,000 bhp Gas Turbine Compressor Engine No. 1507

EMISSIONS STANDARDS

7. Emissions Standards: Emissions from the gas turbine shall not exceed the following limits for carbon monoxide (CO), nitrogen oxides (NOx), opacity, particulate matter (PM), sulfur dioxide (SO_2), 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	13.5	59.30	Avoid Rule 62-212.400, F.A.C.
NOx [b]	25.0 ppmvd @ 15% O_2	11.1	48.70	Avoid Rule 62-212.400, F.A.C. 40 CFR 60.332
SO_2 [c]	10.0 grains of sulfur per 100 SCF of gas	3.4	14.89	Avoid Rule 62-212.400, F.A.C. 40 CFR 60.333
Opacity [d]	10% opacity, 6-minute average	Not Applicable		Rule 62-4.070(3), F.A.C.
PM [e]	Efficient combustion of natural gas	0.8	3.50	Rule 62-4.070(3), F.A.C.
VOC [e]	Efficient combustion of natural gas	0.4	1.70	Rule 62-4.070(3), F.A.C.

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 SO_2 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 the opacity and CO standards. Equivalent maximum PM emissions are based on a factor of 0.0066 lb/MMBtu heat input from AP-42 Table 3.1-2a. Equivalent maximum VOC emissions are based on a total hydrocarbon factor of 25.0 ppmvd @ 15% oxygen from the vendor and the conservative assumption that 10% the hydrocarbons are regulated (non-methane) VOC. No testing is 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 SO_2. Mass emission rates for SO_2 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. Compliance with the emissions standards of this permit ensure that the project remains a minor source of air pollution with respect to PSD.

EMISSIONS PERFORMANCE TESTING

8. 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 *{Permitting Note: These methods shall be used as necessary to support other required methods.}*
9	Determination of Opacity
10	Determination of Carbon Monoxide Emissions *{Permitting Note: This method shall be based on a continuous sampling train.}*
19	Determination of Sulfur Dioxide and Nitrogen Oxides Emission Rates *{Permitting Note: This method shall be used as necessary to support other required methods.}*
20	Determination of Nitrogen Oxides, Sulfur Dioxide and Diluent Emissions from Gas Turbines

Tests shall also be conducted in accordance with the requirements specified 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. [Rules 62-204.800 and 62-297.100, F.A.C.; 40 CFR 60, Appendix A]

9. Initial Tests: The 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 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. SO_2 emissions shall be calculated and reported 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]

10. Annual Tests: During each federal fiscal year (October 1 - September 30), the 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. SO_2 emissions shall be calculated and reported based on fuel flow and vendor analysis of fuel sulfur content. In addition to the test results, each report shall include a general description of the maintenance activities and operation of this facility since the last test. [Rule 62-297.310(7)(a)4, 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]

RECORDS AND REPORTS

12. Test Reports: The permittee shall prepare and submit reports for all required tests in accordance with the requirements specified in 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 test run, the report shall also indicate the natural gas firing rate (cubic feet per hour), heat input rate (MMBtu per hour), the power output (bhp), percent peak 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 the 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: heat input (MMBtu per hour); 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.]

Contents

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 CRF 60.7]

Means: Title 40, Part 60, Section 7

SECTION 4. APPENDIX FM

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]

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

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.

ID	Emission Unit Description
006	Compressor Engine No. 1507 consists of a 15,000 bhp gas turbine compressor engine.

NSPS General Provisions

In addition to the specific conditions of the permit and NSPS Subpart GG, the emissions unit is 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

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 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).

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≤0.015	0
0.015<N≤0.1	0.04(N)
0.1<N≤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.

{Permitting Note: The "Y" value when firing natural gas as provided by the manufacturer is approximately "11.4". The equivalent emission standard is 190 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.

{Permitting 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 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).

{Permitting Note: The excess NOx emissions reporting requirements do not apply. The gas turbine uses "dry" lean premix combustors and not wet injection to control NOx emissions. Also, NOx emissions due to fuel-bound nitrogen are considered negligible because natural gas is the exclusive fuel and contains negligible 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 result 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 (NOx) shall be computed for each run using the following equation:

$$NOx = (NOxo)\,(Pr/Po)^{0.5}\, e^{19(Ho - 0.00633)}\,(288°K/Ta)^{1.53}$$

where:

NOx	=	emission rate of NOx at 15 percent O2 and ISO standard ambient conditions, volume percent.
NOxo	=	observed NOx 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: NOx emissions shall be corrected to ISO ambient atmospheric conditions for each required emissions performance test and compared to the NOx 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 NOx performance tests shall be conducted at approximately four evenly spaced points between the minimum normal operating load and 100% of peak load.

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

(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.

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

Standard Conditions

{Permitting Note: Unless otherwise specified in the permit, 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 permitee 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) and62-210.200(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.]

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

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.

[Rule 62-210.310(8), F.A.C.]

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: Howard Rhodes, Division of Air Resources Management

THRU: Trina Vielhauer, Bureau of Air Regulation
Al Linero, New Source Review Section

FROM: Jeff Koerner, New Source Review Section

DATE: January 9, 2003

SUBJECT: Final Air Construction Permit No. 1230034-011-AC
Florida Gas Transmission Company
Compressor Station No. 15, Taylor County
Phase VI Modifications

The Final Permit for this project is attached for your approval and signature, which authorizes the up-rating of new gas turbine Compressor Engine No. 1507 from 13,000 bhp to 15,000 bhp. In addition, the particulate matter standards for Compressor Engine No. 1506 were revised to "good combustion design with the firing of natural gas as the exclusive fuel". A previous permit had established particulate matter standards based on outdated AP-42 emission factors. The equipment is installed at existing Compressor Station No. 15, which is located on Pisgah Road approximately 1 mile east of U.S. Highway 19 near Perry in Taylor 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 VI projects.

The Department distributed an "Intent to Issue Permit" package on December 10, 2002. The applicant published the "Public Notice of Intent to Issue" in the Tallahassee Democrat on December 15, 2002. The Department received the proof of publication on December 19, 2002. No requests for administrative hearings were filed.

Day #90 is February 25, 2003. I recommend your approval of the attached Final Permit for this project.

Attachments

TV/AAL/jfk

BEST AVAILABLE COPY

TALLAHASSEE DEMOCRAT
PUBLISHED DAILY
TALLAHASSEE-LEON-FLORIDA

STATE OF FLORIDA COUNTY OF LEON:
Before the undersigned authority personally appeared Conni Fonseca who on oath says that she is Legal Advertising Representative of the Tallahassee Democrat, a daily newspaper published at Tallahassee in Leon County, Florida; that the attached copy of advertising being a Legal Ad in the matter of

PUBLIC NOTICE OF INTENT

in the Second Judicial Circuit Court was published in said newspaper in the issues of:

DECEMBER 15, 2002

Affiant further says that the said Tallahassee Democrat is a newspaper published at Tallahassee, in the said Leon County, Florida, and that the said newspaper has heretofore been continuously published in said Leon County, Florida each day and has been entered as second class mail matter at the post office in Tallahassee, in said Leon 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 never paid nor promised any person, firm or coporation any discount, rebate, commission or refund for the purpose of securing this publication in the said newspaper.

CONNI FONSECA
LEGAL ADVERTISING REPRESENTATIVE
Sworn To or Affirmed and Subscribed Before Me.
This 16th Day of Dec 2002, by Conni Fonseca Conni Fonseca
Personally Known X
OR Produced Identification
Type of Identification Produced

(SEAL)

Notary Public
State of Florida

KATIE KNIGHT
MY COMMISSION # DD 103011
EXPIRES: March 25, 2006
Bonded Thru Notary Public Underwriters

Katie Knight

RECEIVED
DEC 19 2002
BUREAU OF AIR REGULATION

Legal Notices Legal Notices Legal Notices

PUBLIC NOTICE OF INTENT
TO ISSUE AIR CONSTRUCTION PERMIT

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Draft Air Permit No. 1230034-011-AC

Florida Gas Transmission Company
Existing Taylor Compressor Station No. 15
Phase VI Project, Units 1506/1507

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit to Florida Gas Transmission Company that authorizes the up-rating of existing gas turbine Compressor Engine No. 1507 from 13,000 bhp to 15,000 bhp and revises the particulate matter requirements for Compressor Engine No. 1506. The equipment is installed at existing Compressor Station No. 15, which is located near Perry in Taylor County, Florida. The applicant's authorized representative is Mr. Richard Craig, Vice President of Southeastern Operations. The applicant's mailing address is Florida Gas Transmission Company, 1400 Smith Street, Houston, TX 77251.

Existing Compressor Engine No. 1507 consists of a Solar Mars 100 T-15000S gas turbine de-rated to 13,000 bhp. Fired exclusively with natural gas, the up-rated unit has the potential to emit the following pollutants: 59 tons of carbon monoxide per year; 49 tons of nitrogen oxides per year; 4 tons of particulate matter per year; 15 tons of sulfur dioxide per year; and 2 ton of volatile organic compounds per year. However, recent previous projects included the addition of a 7200 bhp gas turbine compressor engine (Unit 1508) as well as the shutdown of an existing 13,000 bhp gas turbine. A review of the recent actions shows that the combined projects remain minor with respect to the Rule 62-212.400, F.A.C., which regulates the Prevention of Significant Deterioration (PSD). The project also includes a revision of the particulate matter emission rates for Compressor Engine No. 1506 based on new published emission factors.

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 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:

Florida Department 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

Florida Department of Environmental Protection

Tallahassee, Florida, 32399-2400
Telephone: 850/488-0114
Fax: 850/922-6979

Florida Department of Environmental Protection
Northeast District Office
Air Resources Section
7825 Baymeadows Way, Suite 200B
Jacksonville, Florida 32256-7590
Telephone: 904/807-3300
Fax: 904/448-4363

The complete project file includes the application, Technic
Evaluation and Preliminary Determination, Draft Permit, ar
the information submitted by the responsible official, exclusiv
of confidential records under Section 403.111, F.S. Interest
persons may contact the Bureau of Air Regulation's revie
engineer for this project for additional information at th
address and phone numbers listed above.

DECEMBER 15, 2002

6954278

Department of Environmental Protection

Jeb Bush
Governor

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

David B. Struhs
Secretary

December 6, 2002

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Richard Craig, V.P. of Southeast Operations
Florida Gas Transmission Company
1400 Smith Street
Houston, TX 77002

Re: Draft Air Permit No. 1230034-011-AC
Florida Gas Transmission Company, Station No. 15
Up-Rating of Engine No. 1507 and Revising PM Standards for Engine No. 1506

Dear Mr. Craig:

Enclosed is one copy of the draft permit that authorizes the up-rating of existing gas turbine Compressor Engine No. 1507 from 13,000 bhp to 15,000 bhp and revises the particulate matter requirements for Compressor Engine No. 1506. The equipment is installed at existing Compressor Station No. 15, which is located near Perry in Taylor 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 of 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,

Trina Vielhauer

Trina Vielhauer, Chief
Bureau of Air Regulation

TLV/AAL/jfk

Enclosures

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
1400 Smith Street
Houston, TX 77002

COMPLETE THIS SECTION ON DELIVERY

A. Received by *(Please Print Clearly)* H. Wyatt — B. Date of Delivery 1-2-03

C. Signature

X H. Wyatt ☐ 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 7454

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)

Postage	$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$

Postmark Here

Sent To: Richard Craig
Street, Apt. No.; or PO Box No.: 1400 Smith Street
City, State, ZIP+4: Houston, TX 77002

PS Form 3800, January 2001 See Reverse for Instructions

7001 0320 0001 3692 7454

INTENT TO ISSUE AIR CONSTRUCTION PERMIT

In the Matter of an
Application for Air Permit by:

Florida Gas Transmission Company
1400 Smith Street
Houston, TX 77002

Taylor Compressor Station No. 15
Air Permit No. 1230034-011-AC
Compressor Engine Nos. 1506/1507

Authorized Representative:
Mr. Richard Craig, V.P. of Southeast Operations

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 November 6, 2002 to the Department for a permit that authorizes the up-rating of existing gas turbine Compressor Engine No. 1507 from 13,000 bhp to 15,000 bhp. The applicant later requested a revision of the particulate matter requirements for Compressor Engine No. 1506. The project is located near Perry in Taylor County, Florida.

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. 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.

Trina L Vielhauer

Trina Vielhauer, 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 12/10/02 to the persons listed:

Mr. Richard Craig, FGTC*
Mr. Jim Thompson, FGTC
Mr. Jim Burrow, FGTC
Mr. Kevin McGlynn, McGlynn Consulting Co.
Mr. V. Duane Pierce, AQMcs
Mr. Chris Kirts, NED

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 / December 10, 2002
(Clerk) (Date)

PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Draft Air Permit No. 1230034-011-AC

Florida Gas Transmission Company
Existing Taylor Compressor Station No. 15
Phase VI Project, Units 1506/1507

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit to Florida Gas Transmission Company that authorizes the up-rating of existing gas turbine Compressor Engine No. 1507 from 13,000 bhp to 15,000 bhp and revises the particulate matter requirements for Compressor Engine No. 1506. The equipment is installed at existing Compressor Station No. 15, which is located near Perry in Taylor County, Florida. The applicant's authorized representative is Mr. Richard Craig, Vice President of Southeastern Operations. The applicant's mailing address is Florida Gas Transmission Company, 1400 Smith Street, Houston, TX 77251.

Existing Compressor Engine No. 1507 consists of a Solar Mars 100 T-15000S gas turbine de-rated to 13,000 bhp. Fired exclusively with natural gas, the up-rated unit has the potential to emit the following pollutants: 59 tons of carbon monoxide per year; 49 tons of nitrogen oxides per year; 4 tons of particulate matter per year; 15 tons of sulfur dioxide per year; and 2 ton of volatile organic compounds per year. However, recent previous projects included the addition of a 7200 bhp gas turbine compressor engine (Unit 1508) as well as the shutdown of an existing 13,000 bhp gas turbine. A review of the recent actions shows that the combined projects remain minor with respect to the Rule 62-212.400, F.A.C., which regulates the Prevention of Significant Deterioration (PSD). The project also includes a revision of the particulate matter emission rates for Compressor Engine No. 1506 based on new published emission factors.

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 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:

Florida Department 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

Florida Department of Environmental Protection
Northeast District Office
Air Resources Section
7825 Baymeadows Way, Suite 200B
Jacksonville, Florida 32256-7590
Telephone: 904/807-3300
Fax: 904/448-4363

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 Bureau of Air Regulation's review engineer for this project for additional information at the address and phone numbers listed above.

NOTICE TO BE PUBLISHED IN THE NEWSPAPER

TECHNICAL EVALUATION
&
PRELIMINARY DETERMINATION

PROJECT

Draft Air Construction Permit No. 1230034-011-AC
Emissions Unit No. 002 - Revision of PM Standards for Compressor Engine No. 1506
Emissions Unit No. 006 - Up-Rating Existing Compressor Engine No. 1507

COUNTY

Taylor County

APPLICANT

Florida Gas Transmission Company
ARMS Facility ID No. 1230034
Existing Taylor Compressor Station No. 15

PERMITTING AUTHORITY

Florida Department of Environmental Protection
Division of Air Resources Management
Bureau of Air Regulation
New Source Review Section

December 4, 2002

{Filename: FGT 15VI TEPD.doc}

1. GENERAL PROJECT INFORMATION

Applicant Name and Address

Florida Gas Transmission Company
1400 Smith Street
Houston, TX 77002

Authorized Representative:
Mr. Richard Craig, V.P. of Southeastern Operations

Processing Schedule

11/06/02: Received application to modify existing Engine No. 1507 (EU-006); complete.

11/21/02: Received request to revise particulate emission rates for Engine 1506 (EU-002); complete.

Facility Description and Location

Florida Gas Transmission Company operates existing Compressor Station No. 15, which is located on Pisgah Road approximately 1 mile east of U.S. Highway 19 near Perry in Taylor County, Florida. This is an area that is in attainment (or designated as unclassifiable) for all air pollutants subject to the Florida and National Ambient Air Quality Standards (NAAQS).

Standard Industrial Classification Code (SIC)

SIC No. 4922 – Natural Gas Transmission

Regulatory Categories

Title III: The facility is a major source of hazardous air pollutants (HAP).

Title IV: The facility does not operate units subject to the acid rain provisions of the Clean Air Act.

Title V: The facility is a Title V major source of air pollution (Chapter 62-213, Florida Administrative Code (F.A.C.)).

PSD: The facility is a PSD-major source of air pollution (Rule 62-212.400, F.A.C.).

NSPS: The facility operates units subject to the New Source Performance Standards (40 CFR 60).

Project Description

Florida Gas Transmission Company proposes to up-rate existing gas turbine Compressor Engine No. 1507 from 13,000 bhp to 15,000 bhp. The up-rating will increase the station's compressor capacity, which is part of the Phase VI projects intended to improve the reliability and availability of natural gas pipeline. The up-rating will result in a slightly higher maximum heat input rate as well as emissions rates. As discussed later in this report, this change will be reviewed in conjunction with a recent replacement of this compressor engine to determine PSD applicability for the combination of projects.

In addition, the applicant requests a revision of the particulate matter emission standards for Emissions Unit 006 (Compressor Engine No. 1506), which was established in Air Permit No. PSD-FL-160. This will be discussed as a separate issue at the end of this report. The Bureau of Air Regulation processed this application because Florida Gas Transmission Company requested that all Phase VI projects be reviewed in Tallahassee for purposes of consistency.

2. APPLICABLE REGULATIONS

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 F.A.C. This project is subject to the applicable rules and regulations defined in the following Chapters of the F.A.C.

Chapter	Description
62-4	Permitting Requirements
62-204	Ambient Air Quality Requirements, PSD Increments, and Federal Regulations Adopted by Reference
62-210	Required Permits, Public Notice, Reports, Stack Height Policy, Circumvention, Excess Emissions, Forms
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

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).

Title 40, CFR	Description
Part 60	Subpart A - General Provisions for NSPS Sources
	NSPS Subpart GG - Stationary Gas Turbines
	Applicable Appendices

General PSD Applicability

The Department regulates major air pollution sources in accordance with Florida's Prevention of Significant Deterioration (PSD) program, as approved by the EPA in Florida's State Implementation Plan and defined in Rule 62-212.400, F.A.C. A PSD review is required in areas that are currently in attainment with the National Ambient Air Quality Standard (NAAQS) or areas designated as unclassifiable for a given pollutant. A new facility is considered "major" with respect to PSD if it emits or has the potential to emit:

- 250 tons per year or more of any regulated air pollutant, or
- 100 tons per year or more of any regulated air pollutant and the facility belongs to one of the 28 PSD Major Facility Categories (Table 62-212.400-1, F.A.C.), or
- 5 tons per year of lead.

For new projects at PSD-major sources, each regulated pollutant is reviewed for PSD applicability based on emission thresholds known as the Significant Emission Rates listed in Table 62-212.400-2, F.A.C. Pollutant emissions from the project exceeding these rates are considered "significant" and the applicant must employ the Best Available Control Technology (BACT) to minimize emissions of each such pollutant and evaluate the air quality impacts. Although a facility may be "major" with respect to PSD for only one regulated pollutant, it may be required to install BACT controls for several "significant" regulated pollutants.

The proposed project is located in Taylor County, Florida, an area that is in attainment (or designated as unclassifiable) for all air pollutants subject to a National Ambient Air Quality Standard (NAAQS). The facility is an existing PSD-major source and the project must be reviewed for PSD applicability. The following section provides a detailed PSD review for the proposed project.

3. PROJECT REVIEW

Brief Discussion of Emissions

The following excerpts on stationary gas turbines are from Section 3.1 of EPA's AP-42 emission factor reference document:

"The primary pollutants from gas turbine engines are nitrogen oxides (NOx), 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 (SO_2) are emitted from gas turbines. Ash and metallic additives in the fuel may also contribute to PM in the exhaust. Oxides of sulfur (SOx) will only appear in a significant quantity if heavy oils are fired in the turbine. Emissions of sulfur compounds, mainly SO_2, are directly related to the sulfur content of the fuel."

"Since thermal NOx is a function of both temperature (exponentially) and time (linearly), the basis of dry controls are to either lower the combustor temperature using lean mixtures of air and/or fuel staging, or decrease the residence time of the combustor. A combination of methods may be used to reduce NOx emissions such as lean combustion and staged combustion (two stage lean/lean combustion or two stage rich/lean combustion)."

"Two stage rich/lean combustors are essentially air-staged, premixed combustors in which the primary zone is operated fuel rich and the secondary zone is operated fuel lean. The rich mixture produces lower temperatures (compared to stoichiometric) and higher concentrations of CO and H_2, because of incomplete combustion. The rich mixture also decreases the amount of oxygen available for NOx generation. Before entering the secondary zone, the exhaust of the primary zone is quenched (to extinguish the flame) by large amounts of air and a lean mixture is created. The lean mixture is pre-ignited and the combustion completed in the secondary zone. NOx formation in the second stage is minimized through combustion in a fuel lean, lower temperature environment. Staged combustion is identified through a variety of names, including Dry-Low NOx (DLN), Dry-Low Emissions (DLE), or SoLoNOx."

The gas turbine proposed for the project will fire natural gas as the exclusive fuel, which will minimize emissions of particulate matter and sulfur dioxide. The design of the proposed unit includes lean premix combustion technology with automated control to reduce emissions of nitrogen oxides. Emissions of carbon monoxide and volatile organic compounds will be minimized by the efficient combustion of natural gas, which is almost completely combusted at the high operating temperatures in the gas turbine.

Permitting History

The existing facility operates as a compressor station in Taylor County for Florida Gas Transmission Company's natural gas pipeline. It currently consists of five 2000 bhp reciprocating internal combustion engines, one 4000 bhp reciprocating internal combustion engine, a 13,000 gas turbine compressor engine, a 7200 bhp gas turbine compressor engine, and miscellaneous support equipment. All units fire pipeline natural gas. The following summarizes the permitting history for this station.

- In 1962, three 2000 bhp reciprocating engines were installed (Engines Nos. 1501, 1502, and 1503).
- In 1966, a 2000 bhp reciprocating engine was installed (Engine No. 1504).
- In 1968, a 2000 bhp reciprocating engine was installed (Engine No. 1505).

{Note: The installation of the above units preceded Florida's air construction permit program requirements. These units are collectively identified in the ARMS database as Emissions Unit No. 001.}

- In 1991, a 4000 bhp reciprocating engine was installed (Engine No. 1506) subject to Air Permit No. PSD-FL-160. *{Note: This unit is identified in the ARMS database as Emission Unit No. 002.}*
- In 1994, a 12,600 bhp gas turbine was installed (Engine No. 1507), subject Air Permit No. PSD-FL-202. *{Note: This unit is identified in the ARMS database as Emissions Unit No. 003.}*
- In 2001, Permit No. 1230034-007-AC was issued authorizing the installation of a 7200 bhp gas turbine (Engine No. 1508) and the up-rating of existing Compressor Engine No. 1507 from 12,600 bhp to 13,180

bhp. Emissions from the project did not trigger PSD. *{Note: The ARMS database identified the new 7200 bhp gas turbine as Emissions Unit No. 004 and miscellaneous support equipment as Emissions Unit No. 005.}*

- In 2002, Permit No. 1230034-009-AC was issued authorizing the replacement of existing gas turbine Engine No. 1507 (Solar Mars 90T-13000) with a Solar Mars 100T-15000S de-rated to 13,000 bhp (Solar Mars 100 T-13000S). The project included a netting analysis showing that the project remained below the PSD significant emission rates and avoided PSD preconstruction review. The new engine is still identified by Florida Gas Transmissions Company as Engine No. 1507. *{Note: In the ARMS database, Emissions Unit 003 was marked "inactive" as a shutdown unit and Emissions Unit No. 006 was added as the new Engine No. 1507.}*

For the current project, the applicant requests up-rating the new Compressor Engine 1507 from 13,000 bhp to full capacity at 15,000 bhp (Solar Mars 100 T-15000S). This will result in a slightly higher heat input rate and increased emissions. Due to the timing of the requests, the recent changes will be considered "phased projects". Therefore, the Department will review the current request in conjunction with the projects in 2001 and 2002 to determine PSD applicability.

Applicant's PSD Applicability Review

The applicant provided the following summary related to PSD applicability.

Table 3A. PSD Applicability Summary - Applicant

Pollutant	Net Change in Potential Emissions (Tons Per Year)	Significant Emissions Rate (Tons Per Year)	PSD Review Required?
CO	5.9	100	No
NOx	4.9	40	No
PM/PM10	0.5	25/15	No
SO2	1.2	40	No
VOC	-0.1	40	No

The applicant's analysis compares the differences in potential emissions for all emissions units before and after the project. The Department disagrees with this approach. For projects not involving steam electrical generating units, the PSD applicability review requires a comparison of future potential emissions to past actual emissions of the units that constitute the "project". The applicant also provided the following summary.

Table 3B. Recent Potential to Emit Changes at Station No. 15 - Applicant

Project	Potential Emission Rate Changes	
	NOx, TPY	CO, TPY
Phase IV	0.0	0.0
Phase V	26.4	34.8
Phase VI	4.9	5.9
Total Changes	31.3	40.7

Again, comparing potential increases from previous projects is not appropriate for determining PSD applicability.

Department's PSD Applicability Review

The Department's review considers the following:

- The "affected units" for the project are the retired Compressor Engine No. 1507 (Solar Model No. Mars 90T-13000), the new Compressor Engine No. 1507 (Solar Model No. Mars 100T-15000), and the new Compressor Engine No. 1508 (Cooper-Roll Model 501-KC7 DLE).
- The retired Compressor Engine No. 1507 is shut down and has no future potential emissions. Past actual emissions from the retired Compressor Engine No. 1507 are based on the average hours of operation during 2000 and 2001, which is 8361 per year (ARMS database). CO and NOx emissions are based on the 2-year test averages for these years (ARMS database). PM emissions were based on the emission factor of 0.0066 lb/MMBtu from AP-42 Table 3.1-2a. SO_2 emissions (3.61 lb/hour) and VOC emissions (0.67 lb/hour) are based on the maximum hourly emission rates specified in the Title V permit.
- New Compressor Engine No. 1507 has not been constructed and has no past actual emissions. Although constructed, new Compressor Engine No. 1508 has not yet established "normal" operations and therefore, has no past actual emissions. Future potential emissions from new Compressor Engine Nos. 1507 and 1508 are based on full operation, which is 8760 hours per year. CO, NOx, PM, SO_2, and VOC emissions are based on the maximum hourly emission rates reported in the application (Compressor Engine No. 1507) and Permit No. 1230034-007-AC (Compressor Engine No. 1508).

The above considerations evaluate the full emissions impacts from the recent combined projects to increase station compressor capacity. The following table summarizes the annual emissions and PSD applicability for this project.

Table 3C. Department's PSD Applicability Summary

Pollutant	Annual Emissions, Tons Per Year			Significant Emissions Rate (Tons Per Year)	PSD?
	Past Actual	Future Potential	Net Increase		
CO	17.6	89.8	72	100	No
NOx	36.0	73.6	38	40	No
PM/PM10	3.8	5.3	1	25/15	No
SO_2	15.1	22.3	7	40	No
VOC	2.9	2.6	≈0	40	No

As shown in the above table, the net emissions increases from the series of recent projects will not exceed the PSD significant emissions rates. Therefore, the project is not subject to PSD preconstruction review. In addition, the applicant estimates that total emissions of hazardous air pollutants (HAP) from Unit 1507 will be less than 1 ton per year. This is much less than the HAP thresholds that would trigger a case-by-case MACT determination.

NSPS Subpart GG Requirements

The Unit 1507 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 NOx and SO_2 as well as testing and monitoring requirements. In general, the emissions standards are:

- NOx emissions ≤ 190 ppmvd; and
- SO_2 emissions are limited by firing only fuels containing 0.8 percent sulfur by weight or less.

Based on the manufacturer's estimated performance, the gas turbine will readily comply with the NSPS requirements. The draft permit includes lower emissions standards for several pollutants that will ensure that the project remains minor with respect to PSD applicability.

Draft Emissions Standards

The draft permit requires the permanent shutdown of Emissions Unit 003 (retired Compressor Engine No. 1507) and establishes the new Solar Mars 100 T-15000S as Emissions Unit 006 (new Compressor Engine No. 1507). Installation of Compressor Engine No. 1508 continues to be authorized by Permit No. 1230034-009-AC. Based on the vendor information and applicant's request, the Department specifies the following emissions standards.

Table 3D. Draft Emissions Standards for Compressor Engine 1507

Pollutant	Standards	Equivalent Maximum Emissions [f]		Rule Basis [g]
		lb/hour	TPY	
CO [a]	50.0 ppmvd @ 15% O2	13.5	59.30	Avoid Rule 62-212.400, F.A.C.
NOx [b]	25.0 ppmvd @ 15% O2	11.1	48.70	Avoid Rule 62-212.400, F.A.C. 40 CFR 60.332
SO2 [c]	10.0 grains of sulfur per 100 SCF of gas	3.4	14.89	Avoid Rule 62-212.400, F.A.C. 40 CFR 60.333
Opacity [d]	10% opacity, 6-minute average	Not Applicable		Rule 62-4.070(3), F.A.C.
PM [e]	Efficient combustion of natural gas	0.8	3.50	Rule 62-4.070(3), F.A.C.
VOC [e]	Efficient combustion of natural gas	0.4	1.75	Rule 62-4.070(3), F.A.C.

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 the opacity and CO standards. Equivalent maximum PM emissions are based on a factor of 0.0066 lb/MMBtu heat input from AP-42 Table 3.1-2a. Equivalent maximum VOC emissions are based on a total hydrocarbon factor of 25.0 ppmvd @ 15% oxygen from the vendor and the conservative assumption that 10% the hydrocarbons are regulated (non-methane) VOC. No testing is 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.

g. Compliance with the emissions standards of this permit ensure that the project remains a minor source of air pollution with respect to PSD.

Compliance Methods

The gas turbine shall be shall be tested initially and annually for emissions of CO, NOx, and visible emissions. Testing for CO and NOx shall be conducted concurrently. SO2 emissions shall be calculated and reported based on an analysis of the natural gas fuel sulfur content. The draft permit includes 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.

Note: Permit No. 1230034-007-AC issued in 2001 continues to regulate the initial construction of the 7200 bhp Compressor Engine No. 1508 (EU-004).

4. REVISION OF PARTICULATE MATTER STANDARD FOR UNIT 1506

The applicant also requests a revision of the particulate matter standards for Emissions Unit 006 (FGTC Unit 1506), which was established in Air Permit No. PSD-FL-160 issued on May 8, 1991. A review of this permit shows that the original project was subject to PSD preconstruction review only for NOx emissions. However, Condition No. 1 limits particulate matter emissions (PM/PM_{10}) to 0.13 lb/hour and 0.6 tons/year. These limits were based on a general AP-42 emission factor in Section 1.4 for *external* natural gas combustion of 5 lb/MMscf of gas, which is equivalent to about 0.005 lb/MMBtu heat input. On September 19, 1993, Permit No. PSD-FL-160 was amended to reduce the emissions factor to 4.23 lb/MMscf and increase the heat input rate from 27.2 to 32.18 MMBtu per hour. Hourly and annual particulate matter emissions remained the same.

Although these factors may have been the best available estimate at that time, AP-42 now includes Section 3.2, which was specifically developed for natural gas-fired reciprocating *internal* combustion engines. According to the most recent version of AP-42, the total PM emission factor (filterable plus condensable) for a 2-cycle, lean burn engine is 0.04831 lb/MMBtu heat input (Table 3.2-1). Even though the new factor is about ten times higher than the previous factor, the potential particulate matter emissions for the original project remain well below the PSD significant emission rates of 25/15 tons per year for PM/PM_{10} (7.4 tons per year based on the maximum heat input rate of 34.85 MMBtu/hour identified in the current Title V operation permit).

The PSD permit does not require any initial tests or periodic tests to confirm the emission rates. Apparently, compliance was determined solely by the AP-42 emission factor. It is noted that a change in the accepted emission factor does not represent an increase in actual emissions, but rather recognizes that past emissions may have been higher than expected and reported. The Department approves the request and will replace the particulate matter emissions standards with the following text, "Particulate matter emissions are minimized by good combustion design with the firing of natural gas as the exclusive fuel."

5. 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
1400 Smith Street
Houston, TX 77002

Authorized Representative:
Mr. Richard Craig, V.P. of Southeast Operations

Taylor Compressor Station No. 15
Air Permit No. 1230034-011-AC
Facility ID No. 1230034
SIC No. 4922
Permit Expires: December 31, 2003

PROJECT AND LOCATION

This permit authorizes the up-rating of existing gas turbine Compressor Engine No. 1507 from 13,000 bhp to 15,000 bhp and revises the particulate matter requirements for Compressor Engine No. 1506. The equipment is installed at existing Compressor Station No. 15, which is located on Pisgah Road approximately 1 mile east of U.S. Highway 19 near Perry in Taylor County, Florida. The UTM coordinates are Zone 17, 249.02 km East, and 3339.60 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

(Draft)

Howard L. Rhodes, Director
Division of Air Resources Management

(Date)

FACILITY AND PROJECT DESCRIPTION

The existing facility operates as a compressor station in Taylor County for Florida Gas Transmission Company's natural gas pipeline. It consists of five 2000 bhp reciprocating internal combustion engines, one 4000 bhp reciprocating internal combustion engine, a 15,000 gas turbine compressor engine, a 7200 bhp gas turbine compressor engine, and miscellaneous support equipment. This project affects only the following emissions units.

ID	Emission Unit Description
002	**Compressor Engine No. 1506** – Existing 4000 bhp gas-fired reciprocating internal combustion engine (Cooper Bessemer Model No. 8W-330-C2) operating as a compressor engine.
003	**INACTIVE** - Formerly identified as Compressor Engine 1507, this Solar Model No. Mars 90 T-13000S gas turbine has been removed.
006	**Compressor Engine No. 1507** - New 15,000 bhp gas turbine (Solar Model No. Mars 100 T-13000S) installed as a compressor engine subject to the conditions of this permit.

REGULATORY CLASSIFICATION

Title III: The facility is 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 a Title V major source of air pollution (Chapter 213, F.A.C.).

PSD: The facility is a PSD-major source of air pollution (Rule 62-212.400, F.A.C.).

NSPS: The facility operates units subject to the New Source Performance Standards (40 CFR 60).

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.

- Request to revise particulate emission rates for Engine 1506 (EU-002) received on 11/21/02;
- Permit application received on 11/06/02;
- Permit No. 1230034-009-AC previously issued on 07/03/02; and
- Permit No. 1230034-007-AC previously issued on 10/26/01.

1. Permitting Authority: All documents related to PSD preconstruction review shall be submitted to the Department's Bureau of Air Regulation at 2600 Blair Stone Road (MS #5505), Tallahassee, Florida 32399-2400. All other applications for permits to construct, modify, or operate emissions units shall be submitted to the Department's Northeast District Office at 7825 Baymeadows Way, Suite 200B, Jacksonville, Florida 32256-7590 and phone number 904/807-3300.

2. Compliance Authority: All documents related to compliance activities such as reports, tests, and notifications shall be submitted to the Department's Northeast District Office at the above address.

3. Appendices: The following Appendices are attached as part of this permit: 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); and Appendix SC (Standard Conditions).

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. Source Obligation: This project is subject to Rule 62-212.400(2)(g), F.A.C., which states, "If a previously permitted facility or modification becomes a facility or modification which would be subject to the preconstruction review requirements of this rule if it were a proposed new facility or modification solely by virtue of a relaxation in any federally enforceable limitation on the capacity of the facility or modification to emit a pollutant (such as a restriction on hours of operation), which limitation was established after August 7,1980, then at the time of such relaxation the preconstruction review requirements of this rule shall apply to the facility or modification as though construction had not yet commenced on it." This includes, but is not limited to, increases in the heat input rates or pollutant emission rates. [Rule 62-212.400(2)(g), F.A.C.]

8. Title V Permit: This permit authorizes construction of the permitted emissions units and initial operation to determine compliance with Department rules. A Title V operation permit is required for regular operation of the permitted emissions unit. The permittee shall apply for a Title V operation permit at least 90 days prior to expiration of this permit, but no later than 180 days after commencing operation. To apply for a Title V operation permit, the applicant shall submit the appropriate application form, compliance test results, and such additional information as the Department may require by law. The application shall be submitted to the appropriate Permitting Authority with copies to the Compliance Authority. [Rules 62-4.030, 62-4.050, 62-4.220, and Chapter 62-213, F.A.C.]

A. EU 002 - 4000 bhp Reciprocating Compressor Engine No. 1507

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

Emissions Unit No. 005 - Compressor Engine No. 1506
The existing compressor engine is a 4000 bhp reciprocating internal combustion engine fired exclusively with pipeline natural gas.

APPLICABLE REQUIREMENT

1. Previous Permits: This permit supplements all previously issued air construction and operation permits for this emissions unit. Except for the change noted below, the unit remains subject to the conditions of all other valid air construction and operations permits. [Rule 62-4.070, F.A.C.]

2. Particulate Matter: For Compressor Engine No. 1506 (EU 002), particulate matter emissions are minimized by good combustion design with the firing of natural gas as the exclusive fuel. This requirement supersedes the particulate matter standards (TSP and PM_{10}) in Condition No. 1 of Air Permit No. PSD-FL-160, as amended. *{Permitting Note: This change does not result in any increases in actual emissions of particulate matter. All other standards of Air Permit No. PSD-FL-160 remain unaffected.}*

B. EU 006 - 15,000 bhp Gas Turbine Compressor Engine No. 1507

This section of the permit addresses the following emissions unit.

Emissions Unit No. 006 - Compressor Engine No. 1507
Description: The new gas turbine is a Solar Mars 100 T-15000S that will be used as a compressor engine for the natural gas pipeline.
Fuel: The gas turbine fires only natural gas (SCC No 2-02-002-01). The maximum natural gas firing rate is approximately 118,200 cubic feet per hour based on a heating value of 1040 BTU per SCF of gas.
Capacity: At 123 MMBtu per hour of heat input, the gas turbine produces approximately 15,000 bhp (ISO). The gas turbine typically operates near capacity.
Controls: Lean premix combustion technology reduces NOx emissions. The efficient combustion of natural gas at high temperatures minimizes emissions of CO, PM/PM_{10}, SO_2, and VOC.
Stack Parameters: When operating at capacity, exhaust gases exit a rectangular stack (7.55 feet by 7.55 feet) that is 60 feet tall with a flow rate of approximately 191,800 acfm at 910° F.

APPLICABLE STANDARDS AND REGULATIONS

1. NSPS Requirements: The 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 determines 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. Emissions Unit 003: The existing Solar Mars 90 T-13000S gas turbine shall be permanently shutdown and removed from the site. The shutdown unit will be replaced by Emissions Unit 006, which will be identified as Compressor Engine No. 1507. [Applicant Request; Rule 62-212.400(PSD), F.A.C.]

3. New Compressor Engine No. 1507: The permittee is authorized to install a new Solar Mars 100 T-15000S gas turbine that is rated at 15,000 bhp (ISO). The permittee shall tune, operate and maintain the gas turbine's lean premix combustion system to reduce emissions of nitrogen oxides below the permitted limits. Ancillary equipment includes the automated gas turbine control system, an inlet air filtration system, and an exhaust stack. [Applicant Request]

PERFORMANCE RESTRICTIONS

4. Permitted Capacities: The maximum heat input rate to the gas turbine shall not exceed 123 MMBtu per hour while producing approximately 15,000 bhp 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 the 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.]

5. Authorized Fuel: The 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.]

6. Restricted Operation: The hours of operation for the 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.]

B. EU 006 - 15,000 bhp Gas Turbine Compressor Engine No. 1507

EMISSIONS STANDARDS

7. Emissions Standards: Emissions from the gas turbine shall not exceed the following limits for carbon monoxide (CO), nitrogen oxides (NOx), opacity, particulate matter (PM), sulfur dioxide (SO_2), and volatile organic compounds (VOC).

Pollutant	Standards	Equivalent Maximum Emissions [f]		Rule Basis [g]
		lb/hour	TPY	
CO [a]	50.0 ppmvd @ 15% O2	13.5	59.30	Avoid Rule 62-212.400, F.A.C.
NOx [b]	25.0 ppmvd @ 15% O2	11.1	48.70	Avoid Rule 62-212.400, F.A.C. 40 CFR 60.332
SO_2 [c]	10.0 grains of sulfur per 100 SCF of gas	3.4	14.89	Avoid Rule 62-212.400, F.A.C. 40 CFR 60.333
Opacity [d]	10% opacity, 6-minute average	Not Applicable		Rule 62-4.070(3), F.A.C.
PM [e]	Efficient combustion of natural gas	0.8	3.50	Rule 62-4.070(3), F.A.C.
VOC [e]	Efficient combustion of natural gas	0.4	1.70	Rule 62-4.070(3), F.A.C.

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 SO_2 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 the opacity and CO standards. Equivalent maximum PM emissions are based on a factor of 0.0066 lb/MMBtu heat input from AP-42 Table 3.1-2a. Equivalent maximum VOC emissions are based on a total hydrocarbon factor of 25.0 ppmvd @ 15% oxygen from the vendor and the conservative assumption that 10% the hydrocarbons are regulated (non-methane) VOC. No testing is 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 SO_2. Mass emission rates for SO_2 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. Compliance with the emissions standards of this permit ensure that the project remains a minor source of air pollution with respect to PSD.

EMISSIONS PERFORMANCE TESTING

8. 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 *{Permitting Note: These methods shall be used as necessary to support other required methods.}*
9	Determination of Opacity
10	Determination of Carbon Monoxide Emissions *{Permitting Note: This method shall be based on a continuous sampling train.}*
19	Determination of Sulfur Dioxide and Nitrogen Oxides Emission Rates *{Permitting Note: This method shall be used as necessary to support other required methods.}*
20	Determination of Nitrogen Oxides, Sulfur Dioxide and Diluent Emissions from Gas Turbines

Tests shall also be conducted in accordance with the requirements specified 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. [Rules 62-204.800 and 62-297.100, F.A.C.; 40 CFR 60, Appendix A]

9. Initial Tests: The 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 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. SO_2 emissions shall be calculated and reported 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]

10. Annual Tests: During each federal fiscal year (October 1 - September 30), the 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. SO_2 emissions shall be calculated and reported based on fuel flow and vendor analysis of fuel sulfur content. In addition to the test results, each report shall include a general description of the maintenance activities and operation of this facility since the last test. [Rule 62-297.310(7)(a)4, 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]

RECORDS AND REPORTS

12. Test Reports: The permittee shall prepare and submit reports for all required tests in accordance with the requirements specified in 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 test run, the report shall also indicate the natural gas firing rate (cubic feet per hour), heat input rate (MMBtu per hour), the power output (bhp), percent peak 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 the 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: heat input (MMBtu per hour); 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.]

Contents

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 CRF 60.7]

Means: Title 40, Part 60, Section 7

SECTION 4. APPENDIX FM

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]

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

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.

ID	Emission Unit Description
006	Compressor Engine No. 1507 consists of a new 15,000 bhp gas turbine compressor engine.

NSPS General Provisions

In addition to the specific conditions of the permit and NSPS Subpart GG, the emissions unit is 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

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 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).

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≤0.015	0
0.015<N≤0.1	0.04(N)
0.1<N≤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.

{Permitting Note: The "Y" value when firing natural gas as provided by the manufacturer is approximately "11.4". The equivalent emission standard is 190 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.

{Permitting 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 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).

{Permitting Note: The excess NOx emissions reporting requirements do not apply. The gas turbine uses "dry" lean premix combustors and not wet injection to control NOx emissions. Also, NOx emissions due to fuel-bound nitrogen are considered negligible because natural gas is the exclusive fuel and contains negligible 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 result 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 (NOx) shall be computed for each run using the following equation:

$$NOx = (NOxo)\ (Pr/Po)^{0.5}\ e^{19(Ho - 0.00633)}\ (288°K/Ta)^{1.53}$$

where:

NOx = emission rate of NOx at 15 percent O2 and ISO standard ambient conditions, volume percent.
NOxo = observed NOx 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: NOx emissions shall be corrected to ISO ambient atmospheric conditions for each required emissions performance test and compared to the NOx 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 NOx performance tests shall be conducted at approximately four evenly spaced points between the minimum normal operating load and 100% of peak load.

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

(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.

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

Standard Conditions

{Permitting Note: Unless otherwise specified in the permit, 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 permitee 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) and62-210.200(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.]

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

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.

[Rule 62-210.310(8), F.A.C.]

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.]

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

P.E. CERTIFICATION STATEMENT

PERMITTEE

Florida Gas Transmission Company
1400 Smith Street
Houston, TX 77002

Draft Air Permit No. 1230034-011-AC
Existing Taylor Compressor Station No. 15
Phase VI Project, Engine Nos. 1506/1507

PROJECT DESCRIPTION

Florida Gas Transmission Company operates existing Compressor Station No. 15 near Perry in Taylor County, Florida. This is an area that is currently designated as attainment (or unclassifiable) for each pollutant subject to an Ambient Air Quality Standard. The existing station is considered both a PSD and Title V major source of air pollution. Therefore, new projects require a PSD applicability review. The Bureau of Air Regulation processed this application because Florida Gas Transmission requested that all Phase VI projects be reviewed in Tallahassee for purposes of consistency.

The applicant proposes to up-rate existing Compressor Engine No. 1507 from 13,000 bhp to 15,000 bhp. This unit consists of a Solar Mars 100 T-15000S gas turbine de-rated to 13,000 bhp. Fired exclusively with natural gas, the up-rated unit has the potential to emit the following pollutants: 59 tons of carbon monoxide per year; 49 tons of nitrogen oxides per year; 4 tons of particulate matter per year; 15 tons of sulfur dioxide per year; and 2 ton of volatile organic compounds per year. However, Compressor Engine No. 1507 was just recently permitted in 2001/2002 as a replacement for a Solar Mars 90 T-13000S gas turbine. That project also included a new 7200 bhp gas turbine and required a PSD netting analysis. Therefore, the PSD netting analysis was revisited at the higher rating. The review shows that the combination of recent projects does not trigger a PSD review in accordance with Rule 62-212.400, F.A.C. Based on the available information, the project is not major for hazardous air pollutants.

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 NOx and SO_2 as well as testing and monitoring requirements. Based on the manufacturer's estimated performance and the emissions standards established in the draft permit, the gas turbine will readily comply with the NSPS requirements. The draft permit includes emissions standards and monitoring requirements to ensure that the project remains minor with respect to PSD. In addition, the project includes a revision of the particulate matter emission rates for Compressor Engine No. 1506 based on better available information.

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 and 62-204 through 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, geological, and meteorological features).*

Jeffery F. Koerner, P.E.
Registration Number: 49441

12-4-02
(Date)

Memorandum

Florida Department of
Environmental Protection

TO: Trina Vielhauer, Chief
Bureau of Air Regulation

THROUGH: Al Linero, Manager
New Source Review Section

FROM: Jeff Koerner, New Source Review Section

DATE: December 4, 2002

SUBJECT: Draft Air Construction Permit No. 1230034-011-AC
Taylor Compressor Station No. 15
Up-rating of Engine No. 1507 and Revision of PM Standards for Engine No. 1506

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 up-rating of existing gas turbine Compressor Engine No. 1507 from 13,000 bhp to 15,000 bhp and revises the particulate matter requirements for Compressor Engine No. 1506. The equipment is installed at existing Compressor Station No. 15, which is located near Perry in Taylor County, Florida. The Technical Evaluation and Preliminary Determination provides a detailed description of the project, rule applicability, and emissions standards. The P.E. certification briefly summarizes the proposed project. Day #74 is January 18, 2003. I recommend your approval of the attached Draft Permit for this project.

TTV/AAL/jfk

Attachments

Florida Gas Transmission Company

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

November 20, 2002

CERTIFIED MAIL – RETURN RECEIPT

Mr. Clair H. Fancy, P.E.
Bureau of Air Regulation
Florida Department of Environmental Protection
Twin Towers Office Bldg.
2600 Blairstone
Tallahassee, FL 32399-2400

Reference: Facility: 01230034
Emission Unit No. 002
Compressor Station No. 15, Perry, Taylor County
Phase VI Expansion Project

Dear Mr. Fancy:

Subject: Request to Modify PM Emission Rate

Florida Gas Transmission Company (FGT) is requesting that an additional change be made as part of the recent application for a construction permit to increase horsepower of a Mars 100 compressor turbine at the above referenced facility as part of the Phase VI Expansion Project.

Estimates of particulate matter (PM) emissions for Engine No. 1506 (EU No. 002) have changed due to changes in emission factors provided by the U.S. Environmental Protection Agency (USEPA) since the original construction permit application for this engine was submitted. FGT is requesting that permitted PM emissions be revised to 1.68 lb/hr and 7.4 tpy based on the new USEPA emission factor of 0.04831 lb/ MMBtu as given in the USEPA document AP-42, 5th Ed., July 2000, Table 3.2-1. The permitted heat rate for this engine is 34.85 MMBtu/hr.

PM Emissions Calculations

0.04831 lb / MMBtu * 34.85 MMBtu/hr = 1.6836 lb/hr
1.68 lb/hr * 8760 hr/yr * 1 ton/2000 lb = 7.4 tpy

FGT stresses that this does not represent any change in real emissions. This should only be considered a better estimate of the actual emissions than was originally used.

A Responsible Official signature page is enclosed.

If you have any questions or need additional information, please call me at (713) 646-7646 or Dr. Duane Pierce at (281) 373-5365.

Sincerely,

Marc Phillips

Marc Phillips
Director, Air Compliance

CC: Jim Thompson, Phase VI Tampa Office
Jake Krautsch, FGT
V. Duane Pierce, Ph.D., AQMcs, LLC
Compressor Station No. 15
Q Kaerner
C, Kirk, NED

Owner/Authorized Representative or Responsible Official

1. Name and Title of Owner/Authorized Representative or Responsible Official:
   Richard Craig, Vice President, Southeast Operations

2. Owner/Authorized Representative or Responsible Official Mailing Address:
   Organization/Firm: Florida Gas Transmission Company
   Street Address: 1400 Smith Street
   City: Houston State: TX Zip Code: 77002

3. Owner/Authorized Representative or Responsible Official Telephone Numbers:
   Telephone: (713) 646-6128 Fax:

4. Owner/Authorized Representative or Responsible Official Statement:

   I, the undersigned, am the owner or authorized representative(check here [ ], if so) or the responsible official (check here [X], if so) of the Title V source addressed in this application, whichever is applicable. 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.*

   Richard L. Craig — Signature

   11-20-02 — Date

* 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) 350-5001

Florida Gas Transmission Company

Capital Projects Field Office, 111 Kelsey Lane, Ste. A., Tampa, FL 33619
813.655.7441 / 800.381.1477

November 4, 2002

Mr. Clair H. Fancy, P.E.
Bureau of Air Regulation
Florida Department of Environmental Protection
Twin Towers Office Bldg.
2600 Blairstone
Tallahassee, FL 32399-2400

Reference: Facility: 1230034
Compressor Station No. 15, Perry, Taylor County

Dear Mr. Fancy:

Subject: Application for Air Construction Permit

Florida Gas Transmission Company (FGT) is proposing to upgrade an existing compressor turbine from 13,000ISO bhp to 15,000 bhp ISO at the above referenced facility. The existing facility is a major source under New Source Review definitions; however, the proposed modifications do not result in emissions that are significant under Prevention of Significant Deterioration requirements. Therefore, a state only construction permit is required.

Enclosed is an Application for an Air Construction Permit for the proposed modifications. FGT understands that no processing fee is required since this facility is operated under a Part 70 Permit.

If you have any questions or need additional information, please call me at (800) 381-1477.

Sincerely,

Jim Thompson
Project Manager, Environmental

CC: James Alexander, Phase V w/o attachments
Rick Craig, w/o attachments
Jim Thompson, Phase V
Jake Krautsch, FGT
V. Duane Pierce, Ph.D., AQMcs, LLC
Larry Parrish, Compressor Station No. 15

Florida Gas Transmission Company

Phase V Expansion Project

Compressor Station No. 15

APPLICATION
For
AIR CONSTRUCTION
PERMIT

NOVEMBER 2002

Prepared by AQMcs, LLC

Table of Contents

List of Tables

1.0 INTRODUCTION

Florida Gas Transmission Company (FGT), a Delaware Corporation and ENRON/EL PASO affiliate of Houston, Texas, is proposing to expand its existing natural gas pipeline facility near Perry in Taylor County, Florida (Compressor Station No. 15). This proposed modification is part of FGT's Phase VI Expansion Project, aimed at increasing the supply capacity of FGT's network servicing domestic, commercial, and industrial customers in Florida. The scope of work for the Phase VI Expansion Project includes expansion through the addition of state-of-the-art compressor engines at three existing compressor stations. The basic project components include:

- Mainline loops, additions, and replacements;
- Lateral loops and additions;
- Meter station additions, modifications, and expansions;
- Regulator additions, modifications, and expansions; and
- Compressor station additions and modifications.

Compressor Station No. 15 is located in Taylor County, Florida, on Pisgah Road approximately 1 mile east of U.S. Highway 19. Figure 1-1 shows the location of the existing compressor station.

The proposed modification involves the upgrading of an existing compressor turbine from 13,000 bhp to 15,000 bhp (ISO). The compressor turbine is used solely for transporting natural gas by pipeline for distribution to markets in Florida. The existing engine is a Solar Mars 100-T15000S equipped with dry low NO_X (oxides of nitrogen) combustion and derated to 13,000 bhp. Under current federal and state air quality regulations, the proposed modification will constitute a minor modification of an existing major source. Based on the projected annual emission rates, there will be no PSD (Prevention of Significant Deterioration) significant increase in any emissions.

Engineering designs for the proposed expansion project include selection of an engine incorporating dry low NO_X combustion technology. Dry low NO_X technology for control of NO_X emissions would represent Best Available Control Technology (BACT) for the proposed turbine engine under PSD requirements.

This application contains two additional sections. Descriptions of the existing operation at FGT's Compressor Station No. 24 and the proposed upgraded turbine are presented in Section 2.0. The air quality review requirements and applicability of state and federal regulations are discussed in Section 3.0. References are included in Section 4.0.

FDEP permit application forms are presented in Attachment A. Attachment B contains a plot plan of the facility. Attachment C contains vendor information and Attachment D contains emission calculations.

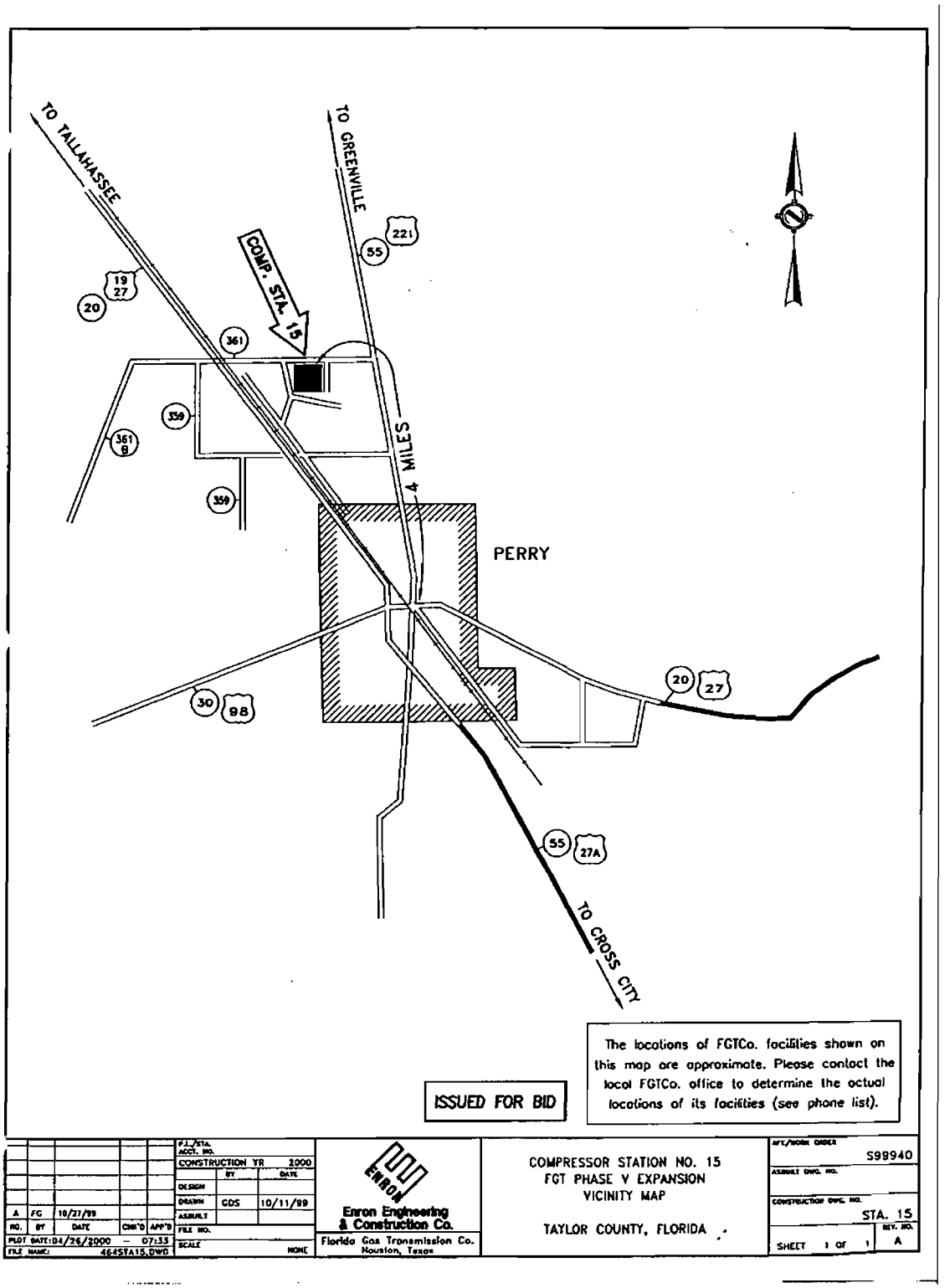


Figure 1-1 Area Map

2.0 PROJECT DESCRIPTION

A plot plan of FGT's Compressor Station No. 15, showing the location of the plant boundaries, the existing emission sources, and the location of the proposed new engine, is presented in Attachment B. The following sections provide a description of the existing operations at this location, as well as a description of the proposed project.

2.1 Existing Operations

FGT's existing Compressor Station No. 15 consists of five 2,000 bhp and one 4,000 bhp natural-gas-fired reciprocating internal combustion (IC) engines. Compressor Station No. 15 also has one 13,000 bhp gas-fired turbine which is the engine being modified. Table 2-1 summarizes engine manufacturer, model, and the date of installation for each of the existing engines. The original installation was made in 1962 (Compressor Engines 1501 through 1503). Other engines were added in 1966 and 1968 (Compressor Engines 1504 and 1505). These engines were installed before the CAA Amendments of 1977. An addition referred to as Phase II was constructed in 1991 (Compressor Engine 1506) and was subject to PSD review. The turbine (compressor engine 1507) was added in 1994 as part of the Phase III Expansion Project and was also subject to PSD review. It was upgraded to 13,000 bhp in 2002 as part of the Phase V Expansion Project. Except for Engine 1507 which is having its horsepower raised from 13,000 to 15,000 bhp (ISO), the existing engines are not being modified as part of this expansion project

The existing facility also has supporting equipment including lube and used oil storage tanks, air compressors and emergency generators.

2.2 Proposed Compressor Station Addition

FGT proposes to increase the horsepower capacity of Compressor Station No. 15, as part of the Phase VI Expansion Project. This will involve up-grading one existing gas-fired turbine (Compressor Engine 1507). The proposed new horsepower will be used to increase the volumetric delivery capacity by driving gas compressors that are a part of a gas transmission line that transports natural gas from source wells in Texas and Louisiana for delivery throughout Florida. Without the proposed engine upgrade, it would not be possible to increase the volumetric delivery capacity necessary to meet both short and long-term demands for natural gas in Florida.

Table 2-1 Summary of Existing Compressor Engines

Engine #	Date of Installation	Type	Manufacturer	Model #	Brake Horse Power (bhp)
1501	1962	Reciprocating	Worthington	SEHG-8	2,000
1502	1962	Reciprocating	Worthington	SEHG-8	2,000
1503	1962	Reciprocating	Worthington	SEHG-8	2,000
1504	1966	Reciprocating	Worthington	SEHG-8	2,000
1505	1968	Reciprocating	Worthington	SEHG-8	2,000
1506	1991	Reciprocating	Cooper - Bessemer	8W-330-C2	4,000
1507	1994 2002 modified	Turbine	Solar	Mars 100	13,000
1508	2002	Turbine	Rolls Royce	501-KC-7	7,222

2.2.1 Upgraded Compressor Turbine

FGT proposes to upgrade one existing natural gas-fired turbine engine compressor unit at Compressor Station No. 15. The engine is a Solar Mars 100 T-15000S turbine compressor unit derated to 13,000 bhp that will be upgraded to 15,000 bhp (ISO). Fuel will be exclusively natural gas from FGT's natural gas pipeline. Engine specifications and stack parameters for the proposed engine are presented in Table 2-2.

Table 2-2 Proposed Upgraded Turbine (1507) Specifications and Stack Parameters

Parameter	Design
Compressor Engine	1507
Type	Gas Turbine
Manufacturer	Solar
Model	Mars 100 T-15000S
Unit Size	15,000 bhp (ISO) 14,510 bhp (site)
Heat Input [a]	122,948 MMBtu/hr
Specific Heat Input	7,703 Btu/hp-hr
Maximum Fuel Consumption [b]	0.1182 MMscf/hr
Speed	8,893 rpm
Stack Parameters	
Stack Height	60 ft
Stack Diameter	7.55 ft x 7.55 ft (rectangular)
Exhaust Gas Flow	191,841 acfm
Exhaust Temperature	909 °F
Exhaust Gas Velocity	56.1 ft/sec

NOTE:

acfm	=	actual cubic feet per minute.
bhp	=	brake horsepower.
Btu/hp-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.

[a] Based on vendor fuel flow rate value plus 10% to adjust to higher heating value.
[b] Based on vendor fuel flow value plus 10% and heating value for natural gas of 1040 British thermal units per standard cubic foot (Btu/scf).

Hourly and annual emissions of regulated pollutants from the proposed engine under normal operating conditions are presented in Table 2-4. Emissions of NO_X, CO and VOCs are based

on the engine manufacturer's supplied data (See Attachment C).

Typically, turbine vendors do not provide information on particulate matter (PM), sulfur dioxide (SO_2) or hazardous air pollutant (HAP) emissions; therefore, particulate matter and HAP emissions are based upon USEPA publication AP-42 Table 3.1-2a (USEPA, 2000) and emissions of SO_2 are based on FGT's Federal Energy Regulatory Commission (FERC) certificate limit of 10 grains sulfur per 100 cubic feet of natural gas.

Table 2-3 Proposed Upgraded Turbine (1507) Compressor Engine Emissions

Pollutant	Emission Factor	Reference	lb/hr	TPY
Nitrogen Oxides	48.70 tpy	Manufacturer Data	11.12	48.7
Carbon Monoxide	59.30 tpy	Manufacturer Data	13.54	59.3
Volatile Organic Compounds	1.70 tpy*	Manufacturer Data	0.39	1.70
Particulate Matter**	0.0066 lb/MMBtu	AP-42, Table 3.1-2a	0.81	3.6
Sulfur Dioxide**	10 grains/100 scf	FERC Limit	3.38	14.8
HAPs*	0.00103 lb/MMBtu See Attachment D	AP-42, Table 3.1-3	0.13	0.6

* VOCs assumed to be 10% of vendor's unburned hydrocarbon (UHC) value of 16.98 tpy
** Emissions based on vendor provided heat rate plus 10 per cent

2.2.2 Emissions Summary

The total changes in emissions resulting from the project are listed on Table 2-5. As can be seen from the table, the emission increases are not significant under PSD. The calculations used to estimate these emissions are presented in Attachment D.

Table 2-4 Potential Annual Emissions (tpy) Summary

SOURCE ID	DESCRIPTION	NO_x	CO	VOC[a]	SO_2	PM
	EXISTING FACILITY					
1501	2000 bhp Recip. Engine	227.8	30.9	13.9	1.8	0.3
1502	2000 bhp Recip. Engine	227.8	30.9	13.9	1.8	0.3
1503	2000 bhp Recip. Engine	227.8	30.9	13.9	1.8	0.3
1504	2000 bhp Recip. Engine	227.8	30.9	13.9	1.8	0.3
1505	2000 bhp Recip. Engine	227.8	30.9	13.9	1.8	0.3
1506	4000 bhp Recip. Engine	77.2	96.6	38.6	3.3	0.6
1507	13,000 bhp Turbine	43.8	53.4	1.8	13.6	3.1
1508	7,222 bhp Turbine Engine	25.0	30.5	1.5	7.6	1.8
GEN01	150 bhp Recip. Engine	0.6	2.3	0.0	0.0	0.0
GEN02	220 bhp Recip. Engine	1.1	0.1	0.0	0.0	0.0
GEN03	670 bhp Recip. Engine	0.7	0.5	0.1	0.0	0.0
	OTHER SOURCES: [b]			3.8		
EXISTING ANNUAL POTENTIALTOTALS:		**1287.4**	**337.9**	**115.3**	**33.5**	**7**
	PROPOSED MODIFIED FACILITY					
1501	2000 bhp Recip. Engine	227.8	30.9	13.9	1.8	0.3
1502	2000 bhp Recip. Engine	227.8	30.9	13.9	1.8	0.3
1503	2000 bhp Recip. Engine	227.8	30.9	13.9	1.8	0.3
1504	2000 bhp Recip. Engine	227.8	30.9	13.9	1.8	0.3
1505	2000 bhp Recip. Engine	227.8	30.9	13.9	1.8	0.3
1506	4000 bhp Recip. Engine	77.2	96.6	38.6	3.3	0.6
1507	15,000 bhp Turbine - modified	48.7	59.3	1.7	14.8	3.6
1508	7,222 bhp Turbine Engine	25.0	30.5	1.5	7.6	1.8
GEN01	150 bhp Recip. Engine	0.6	2.3	0.0	0.0	0.0
GEN02	220 bhp Recip. Engine	1.1	0.1	0.0	0.0	0.0
GEN03	670 bhp Recip. Engine	0.7	0.5	0.1	0.0	0.0
	OTHER SOURCES: [b]			3.8		
PROPOSED ANNUAL POTENTIAL TOTALS:		**1292.3**	**343.8**	**115.2**	**34.7**	**7.5**
NET CHANGES IN POTENTIAL EMISSIONS:		**4.9**	**5.9**	**-0.1**	**1.2**	**0.5**

(a) VOC = Non-methane/non-ethane HC
(b) Other Sources Includes ancillary equipment, storage tanks and equipment leaks

3.0 REGULATORY ANALYSIS

This section presents a review of federal and Florida State air quality regulations, which govern the operations and proposed modifications to be conducted at Compressor Station No. 15.

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. 15.

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. Taylor County in designated as unclassifiable or attainment for all criteria pollutants. These designations were obtained from 40 CFR 81.310, as updated in the June 5, 1998 Federal Register (FR31036) and 62-204.340 F.A.C.

Table 3-1 National and State Ambient Air Quality Standards ($\mu g/m^3$)

POLLUTANT	AVERAGING PERIOD	EPA STANDARDS		FLORIDA STANDARDS
		PRIMARY	SECONDARY	
PM_{10}	24-hour[1]	150	150	150
	annual[2]	50	50	50
SO_2	3-hour[1]	---	1,300	1,300
	24-hour[1]	365	---	260
	Annual[2]	80	---	60
CO	1-hour[1]	40,000	---	40,000
	8-hour[1]	10,000	---	10,000
NO_2	Annaul[2]	100	100	100
O_3	1-hour[3]	235	235	235
Lead	Quarterly Average	1.5	1.5	1.5

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; FAC 62-272.300

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 PSD Applicability

The 1977 CAA Amendments added Part C: Prevention of Significant Deterioration to the Act. This part 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.

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 a PSD area, i.e., an area that has been classified as attainment or as unclassifiable for a particular

pollutant. Taylor County is designated as attainment area for all criteria pollutants. A project's potential to emit is then reviewed to determine whether it constitutes a major stationary source or major modification to an existing major stationary source.

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.

According to the "Draft New Source Review Workshop (NSR) Manual (USEPA, October 1990)," for a modification to be classified as major and therefore, subject to PSD review:

(1) The modification must occur at an existing major stationary source, and

(2) The net emissions increase of any pollutant emitted by the source, as a result of modification, is "significant", or

(3) The modification results in emissions increases, which if considered alone would constitute a major stationary source.

"Significant" emission rates are defined as amounts equal to or greater than the emission rates given in Table 3-2.

Since Compressor Station No. 15 is not one of the 28 named source categories, but does emit >250 TPY of at least one regulated pollutant, it is considered a major source. The increase in emissions resulting from the proposed action will not exceed the PSD significant rate; therefore, the action proposed for Compressor Station No. 15 is a minor modification of an existing major stationary source and is not subject to PSD pre-construction review.

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); Table 212.400-2 62-212 F.A.C.	

3.1.3 Combined Emission Changes for Recent Expansion Project

FGT has had three recent expansion projects with modifications at several compressor stations. The changes in Potential to Emit (PTE) at Compressor Station No. 15 are listed below.

Table 3-3 Recent Potential To Emit (PTE) Changes at CS No. 15

	Emission Rate Changes	
Project	NOx Tons/Year	CO Tons/Year
Phase IV	0.0	0.0
Phase V	26.4	34.8
Phase VI	4.9	5.9
Total Changes	**31.3**	**40.7**

As can be seen, the combined projects do not exceed the PSD significant emission rates given in Table 3-2.

3.1.4 Non-Attainment New Source Review (NSR) Applicability

Based on the current non-attainment provisions, all new major stationary sources, or major modifications to such sources, located in a non-attainment area must undergo non-attainment New Source Review, if they have the potential to emit above an NSR significant threshold. For major new sources or major modifications in an attainment or unclassifiable area, the non-attainment provisions apply if the source or modification is located within the area of influence of a non-attainment area. The area of influence is defined as an area, which is outside the boundary of a non-attainment area, but within the locus of all points that are 50 kilometers outside the non-attainment area.

Compressor Station No. 15 is located in an area that is designated as either attainment or not classifiable for all criteria pollutants and is not located in an area of influence outside a non-attainment area. Therefore, this compressor station is not subject to federal non-attainment New Source Review.

3.1.5 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. Both the new turbine to be installed at Compressor Station No. 15 and the one to be upgraded are subject to Subpart GG, Standards of Performance for Stationary Gas Turbines, because they both 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 SO_2 and requires performance testing and daily monitoring of fuel nitrogen and sulfur. The applicable emission standards are provided in Table 3-4.

The NO_x emission limit for Subpart GG is calculated as follows:

$$STD = 0.0150\ (14.4/Y) + F$$

STD = Allowable NO_x emissions

Y = Heat rate at peak load not to exceed 14.4 *Kj/watt-hour*

F = NO_x 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.

For uprated Engine No. 1507

Y = Btu/bhp-hr x 1.055 *Kj/Btu x hp-hr/745.7 watt-hour*

= 7,941 Btu/bhp-hr x 1.055 *Kj/Btu x hp-hr/745.7 watt-hour*

= 11.23 Kj/watt-hr

STD = 0.0150 (14.4/11.23) + 0

= 0.019 %

= 190 ppm_v

The turbine will both meet the NSPS for NO_X of 190 ppmv (i.e., manufacturer's estimation of 25 ppmv), and for SO_2 of 150 ppmv (estimated for these turbines to be 4 ppmv).

Table 3-4 Applicability of New Source Performance Standards

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. 1507 Gas Turbine	Gas	NO_2	>10 MM Btu/hr	112 MM Btu/hr	190 ppm_v	25 ppm_v
GG	60.333(a)	Engine No. 1507 Gas Turbine	Gas	SO_2	>10 MM Btu/hr	112 MM Btu/hr	150 ppm_v	~4 ppm_v

* Based on vendor data.

3.1.2.6 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.

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 stack at Compressor Station No. 15 is 60 feet (18.3 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 stacks are less than GEP stack height, they comply with the regulatory requirement.

3.2 Florida State Air Quality Regulations

Compressor Station No. 15 is currently operating under Permit No. 0070012-002-AV and is subject to the provisions of that permit. 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. 15 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.

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.

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).

4.0 REFERENCES

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 - TITLE V SOURCE

See Instructions for Form No. 62-210.900(1)

I. APPLICATION INFORMATION

Identification of Facility

1. Facility Owner/Company Name: Florida Gas Transmission Company	
2. Site Name: Compressor Station No. 15	
3. Facility Identification Number: 1230034 [ ] Unknown	
4. Facility Location: Street Address or Other Locator: P.O. Box 8 City: Perry County: Taylor Zip Code: 32347-0930	
5. Relocatable Facility? [ ] Yes [X] No	6. Existing Permitted Facility? [X] Yes [ ] No

Application Contact

1. Name and Title of Application Contact: Jim Thompson, Environmental Project Manager
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:	11-6-02
2. Permit Number:	1230034-011-AC
3. PSD Number (if applicable):	
4. Siting Number (if applicable):	

Purpose of Application

Air Operation Permit Application

This Application for Air Permit is submitted to obtain: (Check one)

[ ] Initial Title V air operation permit for an existing facility which is classified as a Title V source.

[ ] Initial Title V air operation permit for a facility which, upon start up of one or more newly constructed or modified emissions units addressed in this application, would become classified as a Title V source.

Current construction permit number:_____

[ ] Title V air operation permit revision to address one or more newly constructed or modified emissions units addressed in this application.

Current construction permit number:_____

Operation permit number to be revised:_____

[X] Title V air operation permit revision or administrative correction to address one or more proposed new or modified emissions units and to be processed concurrently with the air construction permit application. (Also check Air Construction Permit Application below.)

Operation permit number to be revised/corrected:____1230034-00*-AV_____

[ ] Title V air operation permit revision for reasons other than construction or modification of an emissions unit. Give reason for the revision; e.g., to comply with a new applicable requirement or to request approval of an "Early Reductions" proposal.

Operation permit number to be revised:_____

Reason for revision:_____

Air Construction Permit Application

This Application for Air Permit is submitted to obtain: (Check one)

[X] 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 or Responsible Official

1. Name and Title of Owner/Authorized Representative or Responsible Official:
   Richard Craig, Vice President, Southeast Operations

2. Owner/Authorized Representative or Responsible Official Mailing Address:
   Organization/Firm: Florida Gas Transmission Company
   Street Address: 1400 Smith Street
   City: Houston State: TX Zip Code: 77002

3. Owner/Authorized Representative or Responsible Official Telephone Numbers:
   Telephone: (713) 646-6128 Fax:

4. Owner/Authorized Representative or Responsible Official Statement:

   I, the undersigned, am the owner or authorized representative(check here [ ], if so) or the responsible official (check here [X], if so) of the Title V source addressed in this application, whichever is applicable. 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.*

   Richard D. Craig — Signature

   10/5/02 — Date

* 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) 350-5001

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.

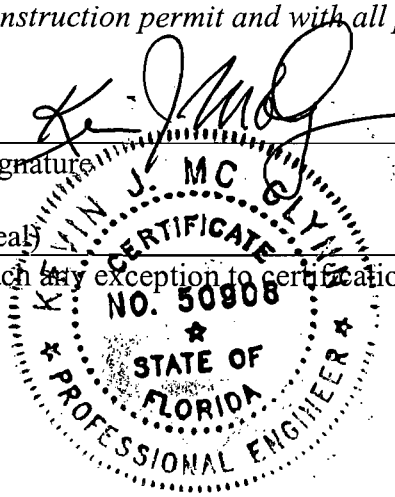
If the purpose of this application is to obtain a Title V source air operation permit (check here [X], if so), I further certify that each emissions unit described in this Application for Air Permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance schedule is 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.

Signature, P.E. #50908 — November 1, 2002 (Date)

(seal)



* Attach any exception to certification statement.

Scope of Application

Emissions Unit ID	Description of Emissions Unit	Permit Type	Processing Fee
	Solar Mars 100 T-15000S, Natural Gas-fired Turbine rated at 14,510 bhp, Engine No. 1507	AC1D	$0.00

Application Processing Fee

Check one: [ ] Attached - Amount: $_____ [X] Not Applicable

Construction/Modification Information

1. Description of Proposed Project or Alterations:

Upgrading of an existing Solar Mars 100 T-13000S (13,000 bhp ISO) to a T-15000S (15,000 bhp ISO).

2. Projected or Actual Date of Commencement of Construction:	01/02/03
3. Projected Date of Completion of Construction:	03/01/03

Application Comment

This proposed modification 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.

The existing facility is currently operating under Permit No.1230034-00*-AV.

II. FACILITY INFORMATION

A. GENERAL FACILITY INFORMATION

Facility Location and Type

1. Facility UTM Coordinates: Zone: 17 East (km): 249.02 North (km): 3339.60			
2. Facility Latitude/Longitude: Latitude (DD/MM/SS): 30/09/54 Longitude (DD/MM/SS): 83/36/33			
3. Governmental Facility Code: 0	4. Facility Status Code: A	5. Facility Major Group SIC Code: 49	6. Facility SIC(s): 4922
7. Facility Comment (limit to 500 characters): Compressor Station No. 15 is an existing natural gas pipeline compressor station with six reciprocating compressor engines and two turbine compressor engines. One of the turbines is being installed under the Phase V Expansion Project. It is classified as a major source under New Source Review and Title V definitions.			

Facility Contact

1. Name and Title of Facility Contact: Larry Parrish, Team Environmental Leader
2. Facility Contact Mailing Address: Organization/Firm: Florida Gas Transmission Company Street Address: Rt. 5, Box 48610 CR. 361 or Pisgah Rd. City: Perry State: FL Zip Code: 32347-0930
3. Facility Contact Telephone Numbers: Telephone: (850) 350-5350 Fax: (850) 350-5351

Facility Regulatory Classifications

Check all that apply:

1. [ ] Small Business Stationary Source?	[ ] Unknown
2. [X] Major Source of Pollutants Other than Hazardous Air Pollutants (HAPs)?	
3. [ ] Synthetic Minor Source of Pollutants Other than HAPs?	
4. [X] Major Source of Hazardous Air Pollutants (HAPs)?	
5. [ ] Synthetic Minor Source of HAPs?	
6. [X] One or More Emissions Units Subject to NSPS?	
7. [ ] One or More Emission Units Subject to NESHAP?	
8. [ ] Title V Source by EPA Designation?	

I. Facility Regulatory Classifications Comment (limit to 200 characters):

Facility is a major source for PSD and Title V purposes. The upgraded turbine will be subject to NSPS Subpart GG. The project is not subject to PSD since the increases in emissions are less than the significant levels.

List of Applicable Regulations

FDEP Title V Core List	
62-296.320 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 lb/hour	tons/year	4. Basis for Emissions Cap	5. Pollutant Comment
NO_X	A				
CO	A				
VOC	B				
SO_2	B				
PM	B				

C. FACILITY SUPPLEMENTAL INFORMATION

Supplemental Requirements

1. Area Map Showing Facility Location: [X] Attached, Document ID: *Narrative Fig. 1-1*[ ] Not Applicable [ ] Waiver Requested
2. Facility Plot Plan: [X] Attached, Document ID:_*Att. B*_ [ ] Not Applicable [ ] Waiver Requested
3. Process Flow Diagram(s): [ ] Attached, Document ID:_____ [ ] Not Applicable [X] Waiver Requested
4. Precautions to Prevent Emissions of Unconfined Particulate Matter: [ ] Attached, Document ID:_____ [X] Not Applicable [ ] Waiver Requested
5. Fugitive Emissions Identification: [ ] Attached, Document ID:_____ [X] Not Applicable [ ] Waiver Requested
6. Supplemental Information for Construction Permit Application: [X] Attached, Document ID:_*Attachment C* [ ] Not Applicable
7. Supplemental Requirements Comment:

Additional Supplemental Requirements for Title V Air Operation Permit Applications

8. List of Proposed Insignificant Activities:
   [ ] Attached, Document ID:_____ [X] Not Applicable

9. List of Equipment/Activities Regulated under Title VI:
   [ ] Attached, Document ID:_____
   [ ] Equipment/Activities On site but Not Required to be Individually Listed
   [X] Not Applicable

10. Alternative Methods of Operation:
    [ ] Attached, Document ID:_____ [X] Not Applicable

11. Alternative Modes of Operation (Emissions Trading):
    [ ] Attached, Document ID:_____ [X] Not Applicable

12. Identification of Additional Applicable Requirements:
    [ ] Attached, Document ID:_____ [X] Not Applicable

13. Risk Management Plan Verification:
    [ ] Plan previously submitted to Chemical Emergency Preparedness and Prevention Office (CEPPO). Verification of submittal attached (Document ID:_____) or previously submitted to DEP (Date and DEP Office:_____)
    [ ] Plan to be submitted to CEPPO (Date required:_____)
    [X] Not Applicable

14. Compliance Report and Plan:
    [ ] Attached, Document ID:_____ [X] Not Applicable

15. Compliance Certification (Hard-copy Required):
    [ ] Attached, Document ID:_____ [X] Not Applicable

III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through J 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
(All Emissions Units)

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in This Section: (Check one)

[X] 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).

[ ] 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.

[ ] 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.

2. Regulated or Unregulated Emissions Unit? (Check one)

[X] The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

[ ] The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

3. Description of Emissions Unit Addressed in This Section (limit to 60 characters):

15,000 bhp ISO natural gas fired turbine compressor unit, Engine No. 1507

4. Emissions Unit Identification Number: [X] No ID
ID: 006 [ ] ID Unknown

5. Emissions Unit Status Code:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code:	8. Acid Rain Unit?
A	12/15/02	49	[ ]

9. Emissions Unit Comment: (Limit to 500 Characters)

The existing Solar Mars 100 T-13000S turbine engine will be uprated from 13,000 bhp ISO to 15,000 bhp ISO. Fuel will be exclusively natural gas from the FGT's gas pipeline. The proposed engine will incorporate dry, low NO_X combustion technology.

Emissions Unit Control Equipment

1. Control Equipment/Method Description (Limit to 200 characters per device or method):

The proposed engine will incorporate dry, low NO_X combustion technology.

2. Control Device or Method Code(s): NA

Emissions Unit Details

1. Package Unit:
   Manufacturer: Solar Model Number: Mars 100-T15000S
2. Generator Nameplate Rating: MW
3. Incinerator Information:
   Dwell Temperature: °F
   Dwell Time: seconds
   Incinerator Afterburner Temperature: °F

B. EMISSIONS UNIT CAPACITY INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Operating Capacity and Schedule

1. Maximum Heat Input Rate:	122.947	mmBtu/hr		
2. Maximum Incineration Rate:	NA	lb/hr		tons/day
3. Maximum Process or Throughput Rate:	NA			
4. Maximum Production Rate:	NA			
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 122.947 MM Btu/hr based on vendor specifications of 111.77 MMBtu/hr fuel flow plus 10%.

C. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)

List of Applicable Regulations

FDEP Title V Core List	
62-296.320 General Visible Emissions Standards	
40 CFR 60, Subpart GG Standards of Performance for Stationary Gas-fired	

D. EMISSION POINT (STACK/VENT) INFORMATION
(Regulated Emissions Units Only)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram? 1507	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: None		
5. Discharge Type Code: V	6. Stack Height: 60 feet	7. Exit Diameter: 7.55 x 7.55 feet
8. Exit Temperature: 909 °F	9. Actual Volumetric Flow Rate: 191,841 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): 249.02 North (km): 3339.60		
14. Emission Point Comment (limit to 200 characters):		

E. SEGMENT (PROCESS/FUEL) INFORMATION
(All Emissions Units)

Segment Description and Rate: Segment __1__ of __1__

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: 0.1182	5. Maximum Annual Rate: 1035.4	6. Estimated Annual Activity Factor: NA
7. Maximum % Sulfur: 0.03	8. Maximum % Ash: 0.0	9. Million Btu per SCC Unit: 1040
10. Segment Comment (limit to 200 characters): Fuel use based on vendor data plus 10%. Percent Sulfur is based on maximum Federal Energy Regulatory Commission (FERC) limit of 10 gr S/100scf 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):	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):		

F. EMISSIONS UNIT POLLUTANTS
(All Emissions Units)

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
VOC			NS
SO_2			EL
PM			NS
NO_X			EL
CO			NS
HAPs			NS

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted: NOX	2. Total Percent Efficiency of Control:
3. Potential Emissions: 11.12 lb/hour 48.7 tons/year	4. Synthetically Limited? [ ]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: 48.70 tpy Reference: Vendor's data	7. Emissions Method Code: 5
8. Calculation of Emissions (limit to 600 characters): (48.70 tpy)(2000 lb/1 ton) / (1 yr/8760 hr) = 11.12 lb/hr	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): Vendor's data based on ISO conditions with site elevation.	

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: 25 ppmv	4. Equivalent Allowable Emissions: 11.12 lb/hour 48.7 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 190 ppmv.	

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units -
Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted: CO	2. Total Percent Efficiency of Control:
3. Potential Emissions: 13.54 lb/hour 59.3 tons/year	4. Synthetically Limited? [ ]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: 59.30 tpy Reference: Vendor's data	7. Emissions Method Code: 5
8. Calculation of Emissions (limit to 600 characters): (59.30 tpy)(2000 lb/1 ton) / (1 yr/8760 hr) = 13.54 lb/hr	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): Vendor emission factor is based on a value of 50 ppmv.	

Allowable Emissions Allowable Emissions __NA__ of ____

1. Basis for Allowable Emissions Code:	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 POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units -
Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted: VOC	2. Total Percent Efficiency of Control:

3. Potential Emissions: 0.39 lb/hour 1.7 tons/year	4. Synthetically Limited? [ ]

5. Range of Estimated Fugitive Emissions:
[ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year

6. Emission Factor: 16.98 tpy UHC Reference: Vendor's data	7. Emissions Method Code: 5

8. Calculation of Emissions (limit to 600 characters):

Vendor factor for unburned hydrocarbons (UHC) = 16.98 tpy.
Assume 10% is VOC.
(1.70 tpy)(2000 lb/1 ton) / (1 yr/8760 hr) = 0.39 lb/hr

9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):

Allowable Emissions Allowable Emissions __NA__ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
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 POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units -
Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted: SO2	2. Total Percent Efficiency of Control:
3. Potential Emissions: 3.38 lb/hour 14.8 tons/year	4. Synthetically Limited? [ ]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: 10 gr/100scf Reference: Vendor's fuel use and FERC limitation	7. Emissions Method Code: 3

8. Calculation of Emissions (limit to 600 characters):

(10 gr S/100 scf)(0.1182 MMscf/hr)(1 lb/7000 gr) = 1.69 lb S/hr
(1.69 lb S/hr)(2 lb SO2/lb S) = 3.38 lb SO2/hr
(3.38 lb SO2/hr)(8760 hr/yr)(1 ton/2000 lb) = 14.79 ton/yr

9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):

Based on vendor's fuel use data plus 10%.
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:
3. Requested Allowable Emissions and Units: 4 ppmv	4. Equivalent Allowable Emissions: 3.38 lb/hour 14.8 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 60.332(a) limits SO2 emissions to 150 ppmv.

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted: PM	2. Total Percent Efficiency of Control:
3. Potential Emissions: 0.81 lb/hour 3.6 tons/year	4. Synthetically Limited? [ ]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: 0.0066 lb/MM Btu Reference: Table 3.1-2a, AP-42 4/00 Supplement E	7. Emissions Method Code: 4
8. Calculation of Emissions (limit to 600 characters): (0.0066 lb/MM Btu)(122.95 MM Btu/hr) = 0.81 lb/hr (0.81 lb/hr)(8760 hr/yr)(1 ton/2000 lb) = 3.55 ton/y	
9. Pollutant Potential/Fugitive 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:	2. Future Effective Date of Allowable Emissions:
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 POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted: HAPS	2. Total Percent Efficiency of Control:
3. Potential Emissions: 0.13 lb/hour 0.6 tons/year	4. Synthetically Limited? [ ]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: 0.001027 lb/MMBtu Reference: Table 3.1-3, AP-42, 04/00	7. Emissions Method Code: 5
8. Calculation of Emissions (limit to 600 characters): (0.001027 lb/MM Btu)(122.947 MM Btu/hr) = 0.126 lb/hr (0.126/lb/hr)(8760 hr/yr)(1 ton/2000 lb) = 0.55 ton/yr	
9. Pollutant Potential/Fugitive 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: lb/hour tons/year
5. Method of Compliance (limit to 60 characters):	
6. Allowable Emissions Comment (Desc. Of Operating Method) (limit to 200 characters):	

H. VISIBLE EMISSIONS INFORMATION
(Only Regulated Emissions Units Subject to a VE Limitation)

Visible Emissions Limitation: Visible Emissions Limitation _____ of _____

1. Visible Emissions Subtype: VE10	2. Basis for Allowable Opacity: [X] Rule [ ] Other
3. Requested Allowable Opacity: Normal Conditions: 10 % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: EPA Method 9	
5. Visible Emissions Comment (limit to 200 characters):	

I. CONTINUOUS MONITOR INFORMATION
(Only Regulated Emissions Units Subject to Continuous Monitoring)

Continuous Monitoring System: Continuous Monitor __NA_ of _____

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement: [ ] Rule [ ] Other	
4. Monitor Information: Manufacturer: Model Number: Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment (limit to 200 characters):	

J. EMISSIONS UNIT SUPPLEMENTAL INFORMATION
(Regulated Emissions Units Only)

Supplemental Requirements

1. Process Flow Diagram [ ] Attached, Document ID:_____ [ ] Not Applicable [X] Waiver Requested
2. Fuel Analysis or Specification [ ] Attached, Document ID:_____ [ ] Not Applicable [X] Waiver Requested
3. Detailed Description of Control Equipment [ ] Attached, Document ID:_____ [X] Not Applicable [ ] Waiver Requested
4. Description of Stack Sampling Facilities [ ] Attached, Document ID:_____ [ ] Not Applicable [X] Waiver Requested
5. Compliance Test Report [ ] Attached, Document ID:_____ [ ] Previously submitted, Date:_____ [X] Not Applicable
6. Procedures for Startup and Shutdown [ ] Attached, Document ID:_____ [ ] Not Applicable [X] Waiver Requested
7. Operation and Maintenance Plan [ ] Attached, Document ID:_____ [X] Not Applicable [ ] Waiver Requested
8. Supplemental Information for Construction Permit Application [X] Attached, Document ID: *Attach. C*__ [ ] Not Applicable
9. Other Information Required by Rule or Statute [ ] Attached, Document ID:_____ [X] Not Applicable
10. Supplemental Requirements Comment: Supplemental information is provided in the narrative description and Attachment C accompanying these forms. Emissions testing has not been performed on this unit.

Additional Supplemental Requirements for Title V Air Operation Permit Applications

11. Alternative Methods of Operation
[ ] Attached, Document ID:_____ [X] Not Applicable

12. Alternative Modes of Operation (Emissions Trading)
[ ] Attached, Document ID:_____ [X] Not Applicable

13. Identification of Additional Applicable Requirements
[ ] Attached, Document ID:_____ [X] Not Applicable

14. Compliance Assurance Monitoring Plan
[ ] Attached, Document ID:_____ [X] Not Applicable

15. Acid Rain Part Application (Hard-copy Required) NA

[ ] Acid Rain Part - Phase II (Form No. 62-210.900(1)(a))
Attached, Document ID:_____

[ ] Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)
Attached, Document ID:_____

[ ] New Unit Exemption (Form No. 62-210.900(1)(a)2.)
Attached, Document ID:_____

[ ] Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)
Attached, Document ID:_____

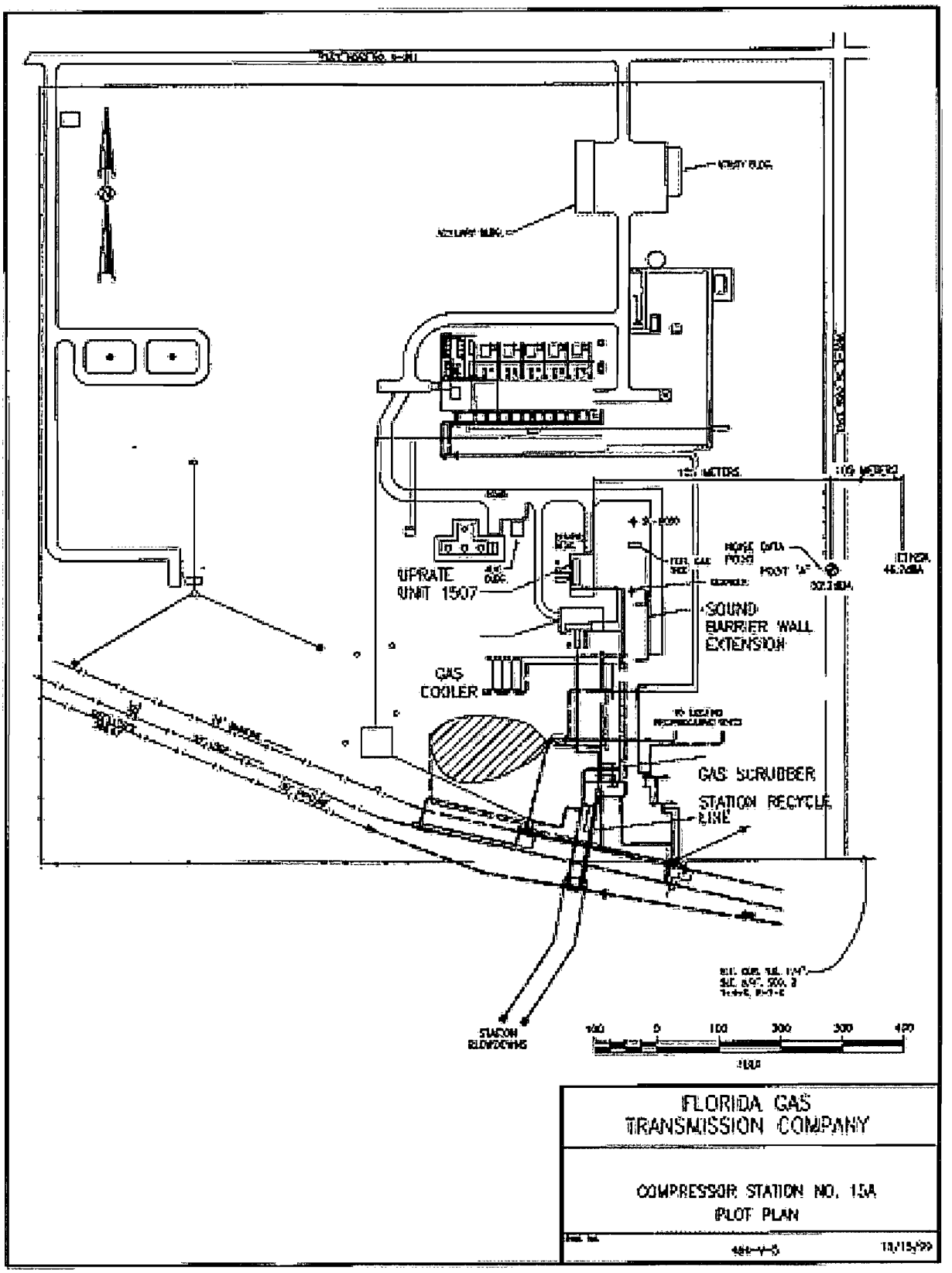
[ ] Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.)
Attached, Document ID:_____

[ ] Phase NOx Averaging Plan (Form No. 62-210.900(1)(a)5.)
Attached, Document ID:_____

[ ] Not Applicable

Attachment B

Plot Plan


UPRATE
UNIT 1507
SOUND
BARRIER WALL
EXTENSION
GAS
COOLER
GAS SCRUBBER
STATION RECYCLE
LINE
STATION
BLOWDOWNS
FLORIDA GAS
TRANSMISSION COMPANY
COMPRESSOR STATION NO. 15A
PLOT PLAN

ATTACHMENT C

Vendor Information

Solar Mars 100 T-15000S Turbine

PREDICTED EMISSION PERFORMANCE

Customer: **Enron**	Engine Model: **MARS 100-T15000S CS/MD 122F MATCH SHIPMENTS AFTER 1/95**
Job ID: **NO2-271P**	
Inquiry Number: **NO2-271P**	Fuel Type: **SD NATURAL GAS** / Water Injection: **NO**
Run By: **John D. Wilson** / Date Run: **26-Sep-02**	Engine Emissions Data: **REV. 0.0** / Engines Tested: **0**

	NOx EMISSIONS Nominal	NOx EMISSIONS Maximum	CO EMISSIONS Nominal	CO EMISSIONS Maximum	UHC EMISSIONS Nominal	UHC EMISSIONS Maximum
1 — 14510 Hp, 100.0% Load, Elev. 100 ft, Rel. Humidity 60.0%, Temperature						
PPMvd at 15% O2	*	25.00	*	50.00	*	25.00
ton/yr	*	48.70	*	59.30	*	16.98
lbm/(MW-hr)	*	1.03	*	1.25	*	0.36
(gas turbine shaft pwr) g/(BHp-hr)	*	0.00	*	0.00	*	0.00
2 — 12812 Hp, 100.0% Load, Elev. 100 ft, Rel. Humidity 60.0%, Temperature						
PPMvd at 15% O2	*	25.00	*	50.00	*	25.00
ton/yr	*	43.76	*	53.29	*	15.26
lbm/(MW-hr)	*	1.05	*	1.27	*	0.36
(gas turbine shaft pwr) g/(BHp-hr)	*	0.00	*	0.00	*	0.00

Important Notes

1. For short-term emission limits such as lbs/hr., Solar recommends using "worst case" anticipated operating conditions specific to the application and the site conditions. Worst case for one pollutant is not necessarily the same for another. The emission values on this form are only predicted emissions at the specific operating conditions listed.
2. Solar's typical SoLoNOx warranty is for greater than 0 deg F, and between 50% and 100% load for gas fuel, and between 80% and 100% load for liquid fuel. An emission warranty for non-SoLoNOx equipment is for greater than 0 deg F and between 80% and 100% load.
3. Fuel must meet Solar standard fuel specification ES 9-98. Predicted emissions are based on the attached fuel composition, or, San Diego natural gas or equivalent.
4. If needed, Solar can provide generic documents to address turbine operation outside typical warranty ranges, as well as non-warranted emissions of SO2, PM10/2.5, VOC, and formaldehyde.
5. Solar can optionally provide factory testing in San Diego to ensure the actual unit(s) meet the above values within the tolerances quoted. Pricing and schedule impact will be provided upon request.

PREDICTED ENGINE PERFORMANCE

Customer: *Enron*	Model: **MARS 100-T15000S**
Job ID: **NO2-271P**	Package Type: **CS/MD**
Run By: **John D. Wilson** / Date Run: **26-Sep-02**	Match: **122F MATCH**
Engine Performance Code: **REV. 2.88** / Engine Performance Data: **REV. 3.1**	Fuel System: **GAS**
	Fuel Type: **SD NATURAL GAS**

Elevation	feet	100	
Inlet Loss	in H20	4.0	
Exhaust Loss	in H20	4.0	
		1	2
Engine Inlet Temperature	deg F	60.0	95.0
Relative Humidity	%	60.0	60.0
Driven Equipment Speed	RPM	8893	8735
Specified Load	HP	FULL	FULL
Net Output Power	HP	14075	12427
Heat Rate	Btu/HP-hr	7941	8201
Nominal Net Output Power	HP	14510	12812
Nominal Heat Rate	Btu/HP-hr	7703	7955
Fuel Flow	mmBtu/hr	111.77	101.92
Engine Exhaust Flow	lbm/hr	332195	304648
Exhaust Temperature	deg F	909	938

Attachment D

Emission Calculations

Engine No. 1507 EPN: 003

NOx Emissions: (Based on Vendor Data)

tons NOx/yr
= 48.70

lb NOx/hr = (tons NOx/yr)(2000 lb/1 ton)(yr/hr)
= (48.70 tpy)(2000 lb/1 ton) / (1 yr/8760 hr)
= 11.12

CO Emissions: (Based on Vendor Data)

tons CO/yr = 59.3

lb CO/hr = (tons CO/yr)(2000 lb/1 ton)(yr/hr)
= (59.30 tpy)(2000 lb/1 ton) / (1 yr/8760 hr)
= 13.54

VOC Emissions: (Based on Vendor Data)

tons VOC/yr
= 1.698

lb VOC/hr = (tons VOC/yr)(2000 lb/1 ton)(yr/hr)
= (1.70 tpy)(2000 lb/1 ton) / (1 yr/8760 hr)
= 0.39

SO2 Emissions: (Based on FERC Limits)

lb S/hr = (gr S/100 scf)(MMscf/hr)(1 lb/7000 gr)
(10 gr S/100 scf)(0.1182 MMscf/hr)(1 lb/7000
= gr)
= 1.69

lb SO2/hr = (lb S/hr)(2 lb SO2/lb S)
= (1.69 lb S/hr)(2 lb SO2/lb S)
= 3.38

tons SO2/yr = (lb SO2/hr)(hr/yr)(1 ton/2000 lb)
= (3.38 lb SO2/hr)(8760 hr/yr)(1 ton/2000 lb)
= 14.79

PM 10/2.5 Emissions: (Based on AP-42 Table 3.1-2a, 4/00)

lb PM/hr = (lb PM/MMBtu)(MMBtu/hr)
= (0.0066 lb/MMBtu)(122.95 MMBtu/hr)
= 0.81

tons PM/yr = (lb PM/hr)(hr/yr)(1 ton/2000 lb)
= (0.81 lb PM/hr)(8760 hr/yr)(1 ton/2000 lb)
= 3.55

HAPs Emissions: (Based on AP-42 Table 3.1-3, 4/00)

lb HAP/hr = (lb HAP/MMBtu)(MMBtu/hr)
= (0.00102733 lb/MMBtu)(122.9470 MMBtu/hr)
= 0.1263

tons HAP/yr = (lb HAP/hr)(hr/yr)(1 ton/2000 lb)
= (0.13 lb PM/hr)(8760 hr/yr)(1 ton/2000 lb)
= 0.55

HAP Emission Factors

HAP	4 cycle lean		4 cycle rich		2 cycle lean		Turbine	
	lb/MMBtu	Ref.	lb/MMBtu	Ref.	lb/MMBtu	Ref.	lb/MMBtu	Ref.
1,1,2,2-Tetrachloroethane	4.00E-05	a	2.53E-05	b	6.63E-05	c		
1,1,2-Trichloroethane	3.18E-05	a	1.53E-05	b	5.27E-05	c		
1,3-Butadiene	2.67E-04	a	6.63E-04	b	8.20E-04	c	4.30E-07	d
1,3-Dichloropropene	2.64E-05	a	1.27E-05	b	4.38E-05	c		
2,2,4-Trimethylpentane	2.50E-04	a			8.46E-04	c		
2-Methylnaphthalene	3.32E-05	a			2.14E-05	c		
Acenaphthene	1.25E-06	a			1.33E-06	c		
Acenaphthylene	5.53E-06	a			3.17E-06	c		
Acetaldehyde	8.36E-03	a	2.79E-03	b	7.76E-03	c	4.00E-05	d
Acrolein	5.14E-03	a	2.63E-03	b	7.78E-03	c	6.40E-06	d
Anthracene					7.18E-07	c		
Benz(a)anthracene					3.36E-07	c		
Benzene	4.40E-04	a	1.58E-03	b	1.94E-03	c	1.20E-05	d
Benzo(a)pyrene					5.68E-09	c		
Benzo(b)fluoranthene	1.66E-07	a			8.51E-09	c		
Benzo(e)pyrene	4.15E-07	a			2.34E-08	c		
Benzo(g,h,i)perylene	4.14E-07	a			2.48E-08	c		
Benzo(k)fluoranthene					4.26E-09	c		
Biphenyl	2.12E-04	a			3.95E-06	c		
Carbon Tetrachloride	3.67E-05	a	1.77E-05	b	6.07E-05	c		
Chlorobenzene	3.04E-05	a	1.29E-05	b	4.44E-05	c		
Chloroform	2.85E-05	a	1.37E-05	b	4.71E-05	c		
Chrysene	6.93E-07	a			6.72E-07	c		
Ethylbenzene	3.97E-05	a	2.48E-05	b	1.08E-04	c	3.20E-05	d
Ethylene Dibromide	4.43E-05	a	2.13E-05	b	7.34E-05	c		
Fluoranthene	1.11E-06	a			3.61E-07	c		
Fluorene	5.67E-06	a			1.69E-06	c		
Formaldehyde	5.28E-02	a	2.05E-02	b	5.52E-02	c	7.10E-04	d
Indeno(1,2,3-c,d)pyrene					9.93E-09	c		
Methanol	2.50E-03	a	3.06E-03	b	2.48E-03	c		
Methylene Chloride	2.00E-05	a	4.12E-05	b	1.47E-04	c		
n-Hexane	1.11E-03	a			4.45E-04	c		
Naphthalene	7.44E-05	a	9.71E-05	b	9.63E-05	c	1.30E-06	d
PAH	2.69E-05	a	1.41E-04	b	1.34E-04	c	2.20E-06	d
Perylene					4.97E-09	c		
Phenanthrene	1.04E-05	a			3.53E-06	c		
Phenol	2.40E-05	a			4.21E-05	c		
Propylene Oxide							2.90E-05	d
Pyrene	1.36E-06	a			5.84E-07	c		
Styrene	2.36E-05	a	1.19E-05	b	5.48E-05	c		
Tetrchloroethane	2.48E-06	a						
Toluene	4.08E-04	a	5.58E-04	b	9.63E-04	c	1.30E-04	d
Vinyl Chloride	1.49E-05	a	7.18E-06	b	2.47E-05	c		
Xylenes	1.84E-04	a	1.95E-04	b	2.68E-04	c	6.40E-05	d
Total Hazardous Cmpds	**7.22E-02**		**3.24E-02**		**7.95E-02**		**1.027E-03**	

References:
a - AP-42, 5th Edition, Supplement F, 07/00, Table 3.2-2
b - AP-42, 5th Edition, Supplement F, 07/00, Table 3.2-3
c - AP-42, 5th Edition, Supplement F, 07/00, Table 3.2-1
d - AP-42, 5th Edition, Supplement F, 04/00, Table3.1-3