

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 *ay*

FROM: Jeff Koerner, New Source Review Section *JK*

DATE: October 31, 2003

SUBJECT: Exemption from Requirement to Obtain an Air Construction Permit
Florida Gas Transmission Company, Bradford Compressor Station No. 16
Replacement of Gas Generator Component of Engine No. 1607
Title V Air Operation Permit No. 0070012-006-AV

Attached for your approval and signature is a letter that exempts the Florida Gas Transmission Company (FGTC) from the requirement to obtain an air construction permit to replace the existing gas generator component of Engine 1607. The replacement component will be functionally equivalent and of the same make and model. The design emissions profile will be identical and, after completing the replacement, FGTC will test Engine 1607 to demonstrate that the repaired unit complies with the permitted emissions standards. I recommend your approval and signature. "Day 90" to act on this request is February 8, 2004.

Attachments



Jeb Bush
Governor

Department of Environmental Protection

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

David B. Struhs
Secretary

October 31, 2003

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Richard Craig, Vice President of Southeastern Operations
Florida Gas Transmission Company
P.O. Box 1188
Houston, TX 77251-1188

Re: Exemption from the Requirement to Obtain an Air Construction Permit
Florida Gas Transmission Company, Bradford Compressor Station No. 16
Replacement of Gas Generator Component of Engine No. 1607
Title V Air Operation Permit No. 0070012-006-AV

Dear Mr. Craig:

On October 28, 2003, Florida Gas Transmission Company submitted a request for an exemption from the requirement to obtain an air construction permit pursuant to Rule 62.4.040(1)(b), F.A.C. to replace the gas generator portion of existing Engine No. 1607. This emissions unit is a nominal 7000 bhp gas turbine compressor engine that is located at existing Station No. 16 in Bradford County approximately 3 miles north of the city of Brooker on Highway 231. For the reasons stated in the attached Technical Evaluation, the Department approves the request and exempts the proposed replacement activity from the requirement to obtain an air construction permit. This determination may be revoked if the proposed activity is substantially modified or the basis for the exemption is determined to be materially incorrect. After completion of the replacement, the Department requires that Engine 1607 be tested to demonstrate compliance with the emission standards specified in Title V Air Operation Permit No. 0070012-006-AV. Florida Gas Transmission Company shall maintain a copy of this letter at Station 16. This permitting decision is made 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 21 days of receipt of this notice of intent. 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

"More Protection, Less Process"

Printed on recycled paper.

are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

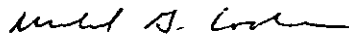
Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any such final decision of 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.

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

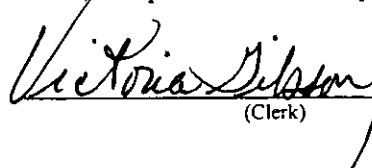
CERTIFICATE OF SERVICE

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 11/3/03 to the persons listed:

Mr. Richard Craig, FGTC*
Mr. Jacob Krautsch, FGTC
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.

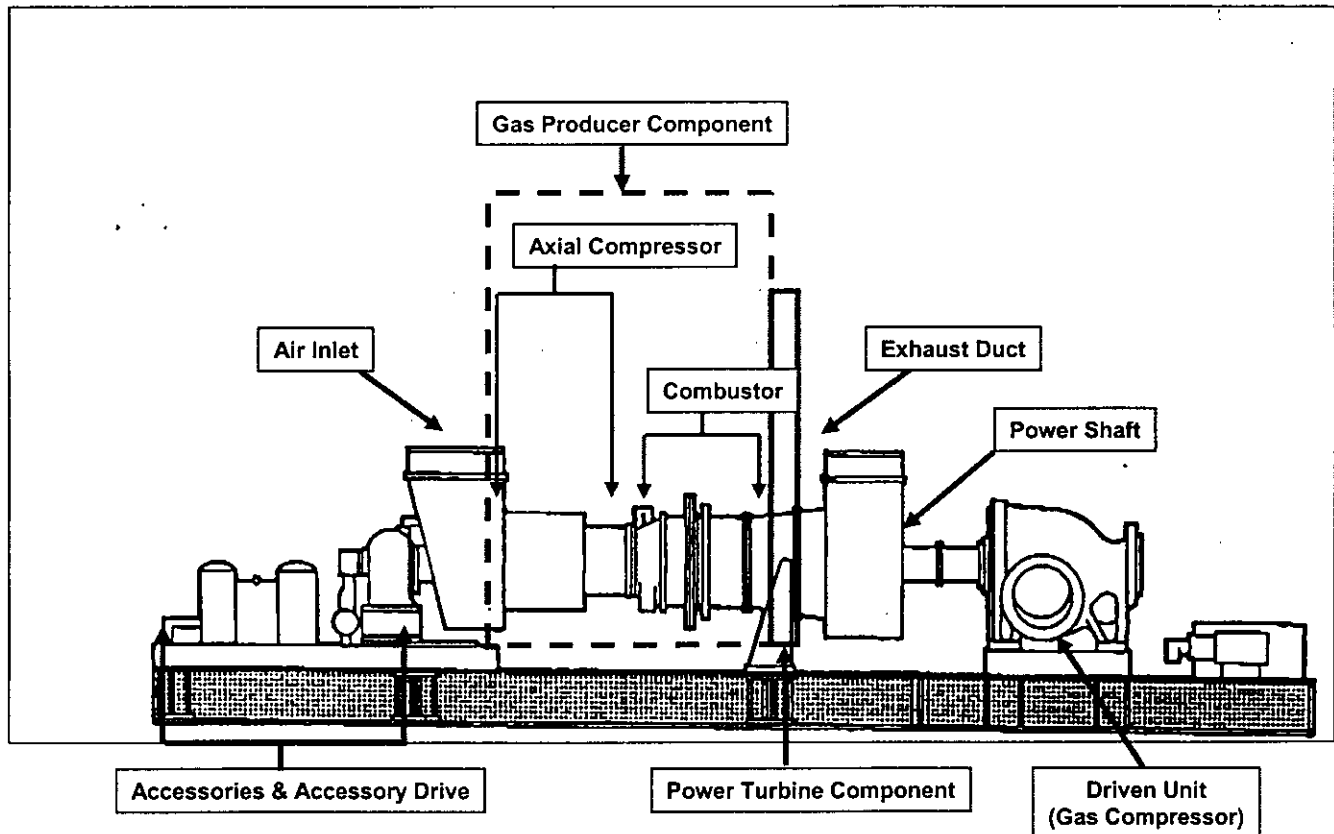
 / November 3, 2003
(Clerk) (Date)

Applicant Request

Pursuant to Rule 62.4.040(1)(b), F.A.C., Florida Gas Transmission Company (FGTC) requests an exemption from the requirement to obtain an air construction permit to replace the gas generator portion of existing Engine No. 1607. Due to ongoing problems with this particular unit, FGTC returned the gas generator to the manufacturer for repair. It is FGTC's intent to have the original component repaired and returned to Engine 1607. However, due to the shutdown of Engine 1607, there is a loss of natural gas throughput in the pipeline of approximately 150 million standard cubic feet per day. This seriously affects the efficiency and reliability of FGTC's natural gas pipeline in delivering energy resources to consumers, commercial facilities, and electric generating plants. Severe warm or cold weather would further strain the system. For this reason, FGTC requests the Department to grant an exemption for a functionally equivalent replacement component that will be of the same make and model. The design emissions profile will be identical and, after completing the replacement, FGTC will test Engine 1607 to demonstrate that the repaired unit complies with the permitted emissions standards.

Department Review

Florida Gas Transmission Company (FGTC) operates existing Compressor Station 16 in Bradford County approximately 3 miles north of the city of Brooker on Highway 231. Station 16 currently consists of five 2000 bhp natural gas-fired reciprocating internal combustion compressor engines (EU-001), one 4000 bhp natural gas-fired reciprocating internal combustion compressor engine (EU-002), a new 7009 bhp natural gas-fired gas turbine compressor engine (EU-003), and several miscellaneous unregulated activities (EU-004). Permit No. 0070012-004-AC authorized the construction of Engine 1607, the 7009 bhp gas turbine (EU-003), which consists of the following components: gas generator, accessory drive system, air inlet and filtration system, fuel delivery system, cooling system, lubrication system, power turbine, power shaft, control system, starting system, and exhaust system with stack. See figure below.



Engine 1607 is one of the new model gas turbines, a Cooper-Rolls Model 501-KC7-DLE. These units have experienced some initial startup problems including blower bearing failures, high vibrations, and compressor bleed valve malfunctions. The gas generator has previously been replaced under the initial air construction permit. However, construction of Engine 1607 is complete and the authority to construct has expired. The unit is now included under current Title V air operation

TECHNICAL EVALUATION

Permit No. 0070012-006-AV, which specifies standards for CO and NOx emissions. The following table shows actual emissions based on tests conducted to date.

Table 1. Actual CO and NOx Emissions, Engine 1607

Test Date	CO Emissions, ppmvd @ 15% O2		NOx Emissions, ppmvd @ 15% O2	
	Highest Tested	Allowable	Highest Tested	Allowable
04/18/02	4.0	50.0	15.9	25.0
03/06/03	3.0	50.0	11.1	25.0
05/02/03	4.0	50.0	11.6	25.0

As shown in the above table, CO emissions have been less than 10% of the permit standard and NOx emissions have been almost half of the permit standard. Note that the additional test in 2003 was conducted after a repaired component. The following information is also taken into consideration in making this determination.

- Engine 1607 may not have established normal operations because construction was complete in 2002 and it has operated for less than two years.
- There are no PSD implications to this replacement. The original project was not subject to PSD preconstruction review. In addition, the total potential emissions from Engine 1607 (and the original construction permit project) for each pollutants are below the PSD significant emission rates. The replacement will not result in increased utilization or annual emissions.
- The unit is subject to the NSPS Subpart GG standards for gas turbines. The replacement of the gas generator with a functionally equivalent component of the same make and model is not a modification with respect to the NSPS because hourly emissions will not increase. Such replacements are discussed by EPA in the background document for the Subpart GG regulations. See EPA document No. EPA-450/2-77-017. Also, the replacement is not "reconstruction" as defined in the NSPS because the replacement cost is well below 50% of the fixed capital cost that would be required to construct a comparable new emissions unit.
- Although the gas generator is a substantial portion of the installed gas turbine compressor engine, it is designed for periodic removal for maintenance of turbine blades, turbine nozzles, turbine buckets, fuel nozzles, combustion chambers, seals, and shaft packings. For small gas turbines, these types of repairs are difficult to perform in the field. The replacement of components from a pool of functionally equivalent equipment is common practice in the gas transmission industry, which generally uses small gas turbines in compressor applications.

Conclusion

Rule 62-4.040(1)(b), F.A.C. allows the Department to exempt from permit requirements the following:

"Any existing or proposed installation which the Department shall determine does not or will not cause the issuance of air or water contaminants in sufficient quantity, with respect to its character, quality or content, and the circumstances surrounding its location, use and operation, as to contribute significantly to the pollution problems within the State, so that the regulation thereof is not reasonably justified. Such a determination is agency action and is subject to Chapter 120, F.S. Such determination shall be made in writing and filed by the Department as a public record. Such determination may be revoked if the installation is substantially modified or the basis for the exemption is determined to be materially incorrect."

Based on the available information, the Department believes that the replacement of the gas generator in Compressor Engine 1607 with a functionally equivalent component of the same make and model will not result in increased air emissions. The replacement activity will not cause air emissions in sufficient quantity to contribute significantly to the pollution problems within the State. Therefore, the replacement is exempt from the requirement to obtain an air permit. This determination is strictly limited to this specific case and should not be used as a precedent for other cases, or lead to unintended consequences construed from the language contained in this letter. Ultimately, it is the Department that interprets its own regulations and opinions.



Florida Gas Transmission Company

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

October 27, 2003

Hand Delivered

Al Linero
Bureau of Air Regulation
Florida Department of Environmental Protection
Twin Towers Office Bldg.
2600 Blairstone
Tallahassee, FL 32399-2400

Reference: Florida Gas Transmission Company, Brooker Compressor Station 16
Facility No. 0070012

Dear Mr. Linero:

Subject: Exemption Request for a Gas Generator Replacement Under 62-4.040

Florida Gas Transmission Company (FGT) is requesting that the Florida Department of Environmental Protection Agency (FDEP) allows the installation of a gas generator replacement at the above referenced facility per Rule 62-4.040. The gas generator installed at the facility has been sent to the manufacturer for repair after a recent failure. The throughput loss from this turbine is 150 MMscf/day, which adversely effects the efficiency and reliability of FGT's natural gas pipeline in delivering energy resources to consumers, commercial facilities and electric generating plants.

The gas generator will be of the same make and model and no source specific emission limits will be violated. In addition, the replacement unit will be tested to confirm that no specific emission limit is violated.

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

Sincerely,

Richard Craig
Vice President Southeast Operations

CC: Tallahassee Files
Station 16
Envision Env. 1.2.20

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
 Post Office Box 1188
 Houston, TX 77251-1188

2. Article Number (Copy from service label)
 7000 2870 0000 7028 3352

PS Form 3811, July 1999

Domestic Return Receipt

102595-99-M-1789

COMPLETE THIS SECTION ON DELIVERY

A. Received by (Please Print Clearly) B. Date of Delivery
 T. [Signature] 11/7/13

C. Signature
 X [Signature] Agent
 Addressee

D. Is delivery address different from item 1? Yes
 If YES, enter delivery address below: No

NOV 6 2013

3. Service Type
 Certified Mail Express Mail
 Registered Return Receipt for Merchandise
 Insured Mail C.O.D.

4. Restricted Delivery? (Extra Fee) Yes

7000 2870 0000 7028 3352

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.
 PO Box 1188
 City, State, ZIP+4
 Houston, TX 77251-1188

PS Form 3800, May 2000

See Reverse for Instructions