

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 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

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:

Project Summary

CO Emissions:

- 4.9 ppmvd @ 15% O2 (Permit limit is 50 ppmvd @ 15% O2.)
- 0.9 lb/hour (Permit identifies maximum rate as 7.0 lb/hour.)

NOx Emissions:

- 14.8 ppmvd @ 15% O2 (Permit limit is 25.0 ppmvd @ 15% O2.)
- 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% O2). 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 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. Article Addressed to: Mr. Richard Craig V.P. of Southeast Operations Florida Gas Transmission Co. 1400 Smith Street 	D. Is delivery address different from item 1? Yes If YES, enter delivery address below: No
Houston, TX 77002	3. Service Type Certified 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 032	0 0001 3692 6976
PS Form 3811, August 2001 Domes	stic Return Receipt 102595-02-M-1540

	U.S. Postal Service CERTIFIED MAIL RECEIPT (Domestic Mail Only; No Insurance Coverage Provided)							
7								
70	86, 1963 - 11 							
692	Postage	s						
H	Certified Fee		Table 1					
0	Return Receipt Fee (Endorsement Required)		Postmark Here					
00	Restricted Delivery Fee (Endorsement Required)							
320	Total Postage & Fees	S						
03	Sent To Mr. Richard Craig							
7007	Street Apt No. 1400 Smith St.							
35	City, State, 219-4 Houston, TX 77002							
	PS Form 3800, January 20	01	See Reverse for Instructions					

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

Technicians: LJB, JTH	1500 15051 5	100 1000/ 5	1500 1000/ 5		
Test Number	1508-100%-1		1508-100%-3		
Date	1/7/03	1/7/03	1/7/03	r	BOEB
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 55.1	181.1 51.8	
Turbine Air Inlet Temperature (°F)	47.9	52.4 1394.3	1395.3	31.6 1393.5	
Gas Generator Exhaust Temperature (°F)	1390.8 815	800	1393.3 794	803	
Gas Compressor Suction Pressure (psig)	58.4	58.6	58.8	58.6	
Gas Compressor Suction Temperature (°F) 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)	757	120	11.0		
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	23,0
CO ₂ (% volume, dry basis)	3.27	3.27	3.27	3.27	
T - X		3.27	3.21		10
Visible Emissions (%Opacity)	0	-	-	0	10
Fo (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)		0.0078	0.0078	0.0078	1.70
	0.0079				
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

Florida Department of Environmental Protection

as for THY

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