



January 19, 2010

Jeff Koerner, P.E.
New Source Review Program Administrator
Bureau of Air Regulation
Florida Dept. of Environmental Protection
2600 Blair Stone Road, MS 5505
Tallahassee, FL 32399-2400

Jonathan Holtom, P.E., CPM
Title V Program Administrator
Bureau of Air Regulation
Florida Dept. of Environmental Protection
2600 Blair Stone Road, MS 5505
Tallahassee, FL 32399-2400

Re: FMPA Treasure Coast Energy Center – Facility ID No. 1110121 Revision request for 1110121-003-AC and 1110121-002-AV

Dear Mr. Koerner:

Dear Mr. Holtom:

In response to your January 9 letter, enclosed please find the completed FDEP permit application form for the above referenced permit revision requests. Also enclosed is a copy of our original letter which lists the requested revisions.

Please contact Amy Deese at 321-239-1004 if you have any questions or require additional information.

Sincerely.

Edward S. Leongomez Responsible Official,

Treasure Coast Energy Center

cc: Lennon Anderson, FDEP SE District
Lee Hoefert, FDEP SE District
Jerome Guidry, Perigee Technical Services, Inc.
Stanley Armbruster, Black & Veatch
Amy Deese, FPMA
Jerusha Gibson, FMPA



## **Department of** Environmental Protection RECEIVED

### **Division of Air Resource Management**

# APPLICATION FOR AIR PERMIT - LONG FORMUMEAU OF AIR REGULATION

#### I. APPLICATION INFORMATION

Air Construction Permit – Use this form to apply for an air construction permit:

- For any required purpose at a facility operating under a federally enforceable state air operation permit (FESOP) or Title V air operation permit;
- For a proposed project subject to prevention of significant deterioration (PSD) review, nonattainment new source review, or maximum achievable control technology (MACT);
- To assume a restriction on the potential emissions of one or more pollutants to escape a requirement such as PSD review, nonattainment new source review, MACT, or Title V; or
- To establish, revise, or renew a plantwide applicability limit (PAL).

**Air Operation Permit** – Use this form to apply for:

- An initial federally enforceable state air operation permit (FESOP); or
- An initial, revised, or renewal Title V air operation permit.

#### To ensure accuracy, please see form instructions.

10	entification of Facility		
1.	Facility Owner/Company Name: Florida Municipal Power Agency		
2.	Site Name: Treasure Coast Energy Center		
3.	Facility Identification Number: 1110121		
4.	Facility Location Street Address or Other Locator: 4545 Energy Lane		
	City: Fort Pierce County: St. Lucie Zip Code: 34981		
5.	Relocatable Facility?  Yes X No  6. Existing Title V Permitted Facility?  X Yes No		
<u><b>A</b>r</u>	plication Contact		
1.	Application Contact Name: Amy Deese		
2.	Application Contact Mailing Address     Organization/Firm: Florida Municipal Power Agency		
	Street Address: 8553 Commodity Circle		
	City: Orlando State: FL Zip Code: 32819		
3.	Application Contact Telephone Numbers		
	Telephone: (321) 239-1004 ext. Fax: (321) 355-5796		
4. Application Contact E-mail Address: amy.deese@fmpa.com			
Application Processing Information (DEP Use)			
	Date of Receipt of Application: (-2)-10,3. PSD Number (if applicable):		
2. Project Number(s): 1102 -004-AC 4. Siting Number (if applicable):			
	1110121-005-141		

DEP Form No. 62-210.900(1) – Form

## Purpose of Application

This application for air permit is being submitted to obtain: (Check one)		
Air Construction Permit  Air construction permit.  Air construction permit to establish, revise, or renew a plantwide applicability limit (PAL).  Air construction permit to establish, revise, or renew a plantwide applicability limit (PAL), and separate air construction permit to authorize construction or modification of one or		
more emissions units covered by the PAL.  Air Operation Permit		
☐ Initial Title V air operation permit.		
Title V air operation permit revision.		
Title V air operation permit renewal.		
Initial federally enforceable state air operation permit (FESOP) where professional engineer (PE) certification is required.		
☐ Initial federally enforceable state air operation permit (FESOP) where professional engineer (PE) certification is not required.		
Air Construction Permit and Revised/Renewal Title V Air Operation Permit (Concurrent Processing)		
X Air construction permit and Title V permit revision, incorporating the proposed project.		
Air construction permit and Title V permit renewal, incorporating the proposed project.		
Note: By checking one of the above two boxes, you, the applicant, are requesting concurrent processing pursuant to Rule 62-213.405, F.A.C. In such case, you must also check the following box:		
I hereby request that the department waive the processing time requirements of the air construction permit to accommodate the processing time frames of the Title V air operation permit.		
Application Comment		
Please see attached letter for the list of requested revisions.		
·		

DEP Form No. 62-210.900(1) – Form

### **Scope of Application**

Description of Emissions Unit	Air Permit Type	Air Permit Processing Fee
GE PG7241 FA Combustion Turbine	AC1A	N/A
		-
2		
		-
	GE PG7241 FA Combustion Turbine	Description of Emissions Unit Type  GE PG7241 FA Combustion Turbine AC1A

Application Processing Fee	
Check one: Attached - Amount: \$	X Not Applicable

DEP Form No. 62-210.900(1) – Form

### Owner/Authorized Representative Statement

Complete if applying for an air construction permit or an initial FESOP.

1.	Owner/Authorized Representativ	e Name :	
2.	Owner/Authorized Representativ Organization/Firm:	e Mailing Address	
	Street Address:		
	City:	State:	Zip Code:
3.	Owner/Authorized Representative	e Telephone Numbers	•
	Telephone: ( ) - ext.	Fax: ( ) -	
4.	Owner/Authorized Representative	e E-mail Address:	
5.	Owner/Authorized Representative	e Statement:	
	I, the undersigned, am the owner or authorized representative of the corporation, partnership, or other legal entity submitting this air permit application. To the best of my knowledge, the statements made in this application are true, accurate and complete, and any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. I understand that a permit, if granted by the department, cannot be transferred without authorization from the department.		
	Signature	- -	Date

DEP Form No. 62-210.900(1) - Form

#### **Application Responsible Official Certification**

Complete if applying for an initial, revised, or renewal Title V air operation permit or concurrent processing of an air construction permit and revised or renewal Title V air operation permit. If there are multiple responsible officials, the "application responsible official" need not be the "primary responsible official."

1. Application Responsible Official Name: Edward S. Leongomez			
2.	2. Application Responsible Official Qualification (Check one or more of the following options, as applicable):		
	For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under Chapter 62-213, F.A.C.		
	<ul> <li>For a partnership or sole proprietorship, a general partner or the proprietor, respectively.</li> <li>For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official.</li> </ul>		
	The designated representative at an Acid Rain source, CAIR source, or Hg Budget source.		
3.	Application Responsible Official Mailing Address. Treasure Coast Energy Center Organization/Firm: Fort Pierce Utilities Authority		
	Street Address: 4545 Energy Lane		
	City: Fort Pierce State: FL Zip Code: 34981		
4.	Application Responsible Official Telephone Numbers  Telephone: (772) 429-8141 ext. Fax: (772) 429-8145		
5.	Application Responsible Official E-mail Address: eleongomez@fpua.com		
6.	Application Responsible Official Certification:		
	I, the undersigned, am a responsible official of the Title V source addressed in this air permit application. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof and all other applicable requirements identified in this application to which the Title V source is subject. 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 the facility or any permitted emissions unit. Finally, I certify that the facility and each emissions unit are in compliance with all applicable requirements to which they are subject, except as identified in compliance plan(s) submitted with this application		
	Signature Date		

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DEP Form No. 62-210.900(1) – Form

Pr	otessional Engineer Certification
1.	Professional Engineer Name: Stanley A. Armbruster, P.E.
	Registration Number: 30562
2.	Professional Engineer Mailing Address
	Organization/Firm: Black & Veatch, CA 8132
	Street Address: 11401 Lamar Avenue
	City: Overland Park State: KS Zip Code: 66211
3.	Professional Engineer Telephone Numbers
	Telephone: (913) 458-2763 ext. Fax: (913) 458-2934
4.	Professional Engineer E-mail Address: ArmbrusterSA@bv.com
5.	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.
	(3) If the purpose of this application is to obtain a Title $V$ air operation permit (check here $\square$ , 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 plan
	and schedule is submitted with this application.
	(4) If the purpose of this application is to obtain an air construction permit (check here ], if so)
	or concurrently process and obtain an air construction permit and a Title V air operation permit
	revision or renewal for one or more proposed new or modified emissions units (check here $oxtimes$ , 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.
	(5) If the purpose of this application is to obtain an initial air operation permit or operation permit revision or renewal 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 stack emissions unit has been constructed or modified in substantial accordance
	with the this will be with the corresponding application for air construction permit and with
	als provisions continued in such permit.
	all province on which permit.
	Signature Date
* 4	STATE OF

\* Attachen exception of the attion statement.

DEP Form No., 6717 0.900(1) – Form

Effective: 3/16/08



December 14, 2009

Jeff Koerner, P.E.
New Source Review Program Administrator
Bureau of Air Regulation
Florida Dept. of Environmental Protection
2600 Blair Stone Road, MS 5505
Tallahassee, FL 32399-2400

Jonathan Holtom, P.E., CPM
Title V Program Administrator
Bureau of Air Regulation
Florida Dept. of Environmental Protection
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Tallahassee, FL 32399-2400

Re: FMPA Treasure Coast Energy Center – Facility ID No. 1110121
Revision request for 1110121-003-AC and 1110121-002-AV

Dear Mr. Koerner:

Dear Mr. Holtom:

We would like to request the following revisions to the above referenced construction and operation permits for Treasure Coast Energy Center.

#### 1110121-003-AC Condition 18.e and 1110121-002-AV Condition A.14.e:

Fuel Switching: Excess emissions due to oil-to-gas fuel switching shall not exceed I hour in a 24-hour block.

Since excess emissions can occur during fuel switching between oil and gas and vice-versa, for clarification purposes, we are requesting to reword these conditions as follows:

Excess emissions due to oil-to-gas and gas-to-oil fuel switching shall not exceed 1 hour each, respectively, in a 24-hour block.

#### 1110121-003-AC Condition 20 and 1110121-002-AV Condition A.20:

DLN Tuning. CEMS data collected during initial or other major dry low nitrogen oxides (DLN) tuning sessions shall be excluded from the CEMS compliance demonstration provided the tuning session is performed in accordance with the manufacturer's specifications. A "major tuning session" would occur after completion of initial construction, a combustor change-out, a major repair or maintenance to a combustor, or other similar circumstances. Prior to performing any major tuning session, the permittee shall provide the Compliance Authority with an advance notice of at least 14 days that details the activity and proposed tuning schedule. The notice may be by telephone, facsimile transmittal, or electronic mail.

We are requesting to reword the "major tuning session" description as follows:

A "major tuning session" would occur after completion of initial construction, a combustor change-out, a major repair or maintenance to a combustor, or circumstances as identified or requested by the equipment vendor.

#### 1110121-003-AC Condition 23 and 1110121-002-AV Condition A.26:

Annual Compliance Tests. During each federal fiscal year (October 1st, to September 30th), the gas turbine shall be tested to demonstrate compliance with the emission standard for visible emissions. NOX and CO emissions data collected during the required continuous monitor Relative Accuracy Test Audits (RATAs) may be used to demonstrate compliance with the CO and NOX standards. Annual testing to determine the ammonia slip shall be conducted while firing the primary fuel. NOX emissions recorded by the CEMS shall be reported for each ammonia slip test run. CO emissions recorded by the CEMS shall be reported for the visible emissions observation period.

We are requesting to reduce the frequency of ammonia slip testing to every five years in accordance with 62-297.310(a)4, based on the following potential to emit (PTE) calculations, which verify that the ammonia slip PTE is 74 tons per year (less than 100 tons per year).

NH3-Oil =  $(5 \text{ ppm})^*(4.42\text{E}-8 \text{ lb/dscf/ppm})^*(9190 \text{ dscf/mmBtu})^*(1986 \text{ mmBtu/hr})^*(20.9/(20.9-15))^*(500 \text{ hrs})/(2000 \text{ lb/ton}) = 3.6 \text{ tons}$ 

NH3-Gas-CT = (5 ppm)\*(4.42E-8 lb/dscf/ppm)\*(8710 dscf/mmBtu)\*(1900 mmBtu/hr)\*(20.9/(20.9-15))\*(8260 hrs)/(2000 lb/ton) = 53.5 tons

NH3-Gas-DB =  $(5 \text{ ppm})^*(4.42\text{E}-8 \text{ lb/dscf/ppm})^*(8710 \text{ dscf/mmBtu})^*(565.3 \text{ mmBtu/hr})^*(20.9/(20.9-15))^*(8760 \text{ hrs})/(2000 \text{ lb/ton}) = 16.9 \text{ tons}$ 

Therefore, we would like to revise the above permit conditions by removing the underlined sentences and to revise <u>1110121-002-AV Condition A.27</u> by adding the underlined wording as shown here:

Compliance Tests Prior To Renewal. Compliance tests shall be performed for PM/PM10, ammonia slip, and SAM/SO2 once every 5 years. NOX emissions recorded by the CEMS shall be reported for each ammonia slip test run. The tests shall occur prior to obtaining a renewed operating permit to demonstrate compliance with the emission limits in Specific Condition A.13

Please contact Amy Deese at 321-239-1004 if you have any questions or require additional

information.

Edward S. Leongomez Responsible Official,

Treasure Coast Energy Center

cc: Lennon Anderson, FDEP SE District

Lee Hoefert, FDEP SE District

Jerome Guidry, Perigee Technical Services, Inc. Stanley Armbruster, Black & Veatch Amy Deese, FPMA Jerusha Gibson, FMPA Engineer of Record Black & Veatch, CA 8132 11401 Lamar Ave. Overland Park, Kansas 66211