#### Golder Associates Inc.

5100 West Lemon Street, Suite 114 Tampa, FL USA 33609 Telephone (813) 287-1717 Fax (813) 287-1716 www.golder.com



## TITLE V RENEWAL APPLICATION FOR FLORIDA POWER CORPORATION INTERCESSION CITY PLANT INTERCESSION CITY, FLORIDA

Prepared for:
Progress Energy Florida
299 First Avenue North, PEF 903
St. Petersburg, Florida 33701

Prepared by: Golder Associates Inc. 5100 West Lemon Street Suite 114 Tampa, Florida 33609

**June 2007** 

073-89506

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JUL 05 2007

BUREAU OF AIR REGULATION

TITLE V RENEWAL APPLICATION FOR FLORIDA POWER CORPORATION INTERCESSION CITY PLANT INTERCESSION CITY, FLORIDA

> Prepared for: Progress Energy Florida 299 First Avenue North, PEF 903 St. Petersburg, Florida 33701

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# Department of Environmental Protection

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# Division of Air Resource Management APPLICATION FOR AIR PERMIT - LONG FORM

BUREAU OF AIR REGULATION

## I. APPLICATION INFORMATION

Air Construction Permit – Use this form to apply for any air construction permit at a facility operating under a federally enforceable state air operation permit (FESOP) or Title V air permit. Also use this form to apply for an air construction permit:

- For a proposed project subject to prevention of significant deterioration (PSD) review, nonattainment area (NAA) new source review, or maximum achievable control technology (MACT) review; or
- Where the applicant proposes to assume a restriction on the potential emissions of one or more pollutants to escape a federal program requirement such as PSD review, NAA new source review, Title V, or MACT; or
- Where the applicant proposes 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/renewal Title V air operation permit.

Air Construction Permit & Title V Air Operation Permit (Concurrent Processing Option) – Use this form to apply for both an air construction permit and a revised or renewal Title V air operation permit incorporating the proposed project.

To ensure accuracy, please see form instructions.

Identification of Facility				
1. Facility Owner/Company Name: Florida Po	1. Facility Owner/Company Name: Florida Power Corporation dba Progress Energy Florida			
2. Site Name: Intercession City Plant				
3. Facility Identification Number: 0970014				
4. Facility Location	· · · · · · · · · · · · · · · · · · ·			
Street Address or Other Locator: 6525 Osce	ola-Polk County Line Road			
City: Intercession City County: C	Osceola Zip Code: 33848			
5. Relocatable Facility?	6. Existing Title V Permitted Facility?			
☐ Yes       X No	x Yes  No			
Application Contact				
1. Application Contact Name: Dave Meyer, Se	enior Environmental Specialist			
2. Application Contact Mailing Address				
Organization/Firm: Florida Power Corpora	tion dba Progress Energy Florida			
Street Address: 299 First Ave., North, P	EF 903			
City: St.Petersburg St	ate: FL Zip Code: 33701			
3. Application Contact Telephone Numbers				
Telephone: (727) 820-5295 ext. Fax: (727) 820-5229				
4. Application Contact Email Address: Dave.Meyer@pgnmail.com				
Application Processing Information (DEP Use)				
1. Date of Receipt of Application: 3. PSD Number (if applicable):				
2. Project Number(s):0910014 -010-AV 4. Siting Number (if applicable):				

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

### Purpose of Application

This application for air permit is 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)
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**

This application is a renewal of the current Title V Air Operating Permit No. 0970014-009-AV. The facility contains 6 combustion turbine peaking units (pre-NSPS) that can fire new No. 2 fuel oil having a maximum sulfur content of 0.5 percent sulfur by weight. The facility also contains 5 combustion turbine units that can fire natural gas or new No. 2 fuel oil having a maximum sulfur content of 0.2 percent by weight. The facility also contains 3 peaking units that are primarily fired with natural gas and new No. 2 fuel oil having a maximum sulfur content of 0.05 percent by weight as a backup.

In addition, minor revisions are requested for permit language relating to allowable emissions during startup, shutdowns and malfunctions, as well as clarifying the basis for compliance with permitted heat input limits (see Attachment IC-FI-CV6).

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

## Scope of Application

Emissions Unit ID Number	Description of Emissions Unit	Air Permit Type	Air Permit Proc. Fee
001 - 006	6 Combustion Turbine Peaking Units (CTP 1, CTP 2, CTP 3, CTP 4, CTP 5, & CTP 6)		
007 - 010	4 Combustion Turbines (CT 7, CT 8, CT 9, & CT 10)		
011	1 Combustion Turbine (CT 11)		
018 - 020	3 Combustion Turbines (CT 12, CT 13, & CT 14)		
•			
			:
			.;
	·		

## Application Processing Fee

Check one:	Attached - Amount: \$	х	Not Applicable
Oncen one.			1 100 1 ippiiouoi

### Owner/Authorized Representative Statement

Complete if applying for an air construction permit or an initial FESOP. 1. Owner/Authorized Representative Name: 2. Owner/Authorized Representative Mailing Address... Organization/Firm: Street Address: City: State: Zip Code: 3. Owner/Authorized Representative Telephone Numbers... Telephone: ( ) ext. Fax: Owner/Authorized Representative Email Address: 5. Owner/Authorized Representative Statement: I, the undersigned, am the owner or authorized representative of the facility 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 requirements identified in this application to which the facility 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.

Date

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Signature

## Application Responsible Official Certification

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

1. Application Responsible Official Name: Julie Turner			
. 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.			
For a partnership or sole proprietorship, a general partner or the proprietor, respectively.			
For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official.			
The designated representative at an Acid Rain source.			
Application Responsible Official Mailing Address			
Organization/Firm: Florida Power Corporation dba Progress Energy Florida			
cet Address: 6525 Osceola-Polk County Line Road			
City: Intercession City State: Osceola Zip Code: 33848			
Application Responsible Official Telephone Numbers  Telephone: (863) 679-3020 ext. Fax: ( ) -			
Application Responsible Official Email Address: Julie.Turner@gpnmail.com			
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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Pr	ofessional Engineer Certification				
1.	Professional Engineer Name: Scott Osbourn, Senior Consultant				
	Registration Number: 57557				
2.	Professional Engineer Mailing Address				
	Organization/Firm: Golder Associates, Inc.*				
	Street Address: 5100 Lemon Street, Suite 114				
	City: Tampa State: FL Zip Code: 33609				
3.	Professional Engineer Telephone Numbers				
	Telephone: (813) 287 - 1717 ext. 211 Fax: (813) 287 - 1716				
4.	Professional Engineer Email Address: sosbourn@golder.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 $x$ , 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 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, 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 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 Date				

\* Board of Professional Engineers Certificate of Authorization No. 000016

6DEP Form No. 62-210.900(1) - Form

(seal)





### II. FACILITY INFORMATION

## A. GENERAL FACILITY INFORMATION

## Facility Location and Type

1. Facility UTM Coordinates		2. Facility Latitude/Longitude			
	Zone 17 East	(km) 446.3		Latitude (DD/MM/	SS) 28/15/38
North (km) 3126		Longitude (DD/MM/SS) 81/32/51			
3.	Governmental Facility Code: 0	4. Facility Status Code: A	5.	Facility Major Group SIC Code: 49	6. Facility SIC(s): 4911

7. Facility Comment:

The Intercession City facility consists of 14 combustion turbine peaking units described as:

- o Units P1-P6 each consists of two gas turbines having a combined nominal generating capacity of 56.7 MW and firing No. 2 distillate oil (0.5% sulfur)
- o Units P7-P10 each consist of a General Electric Model 7EA gas turbine having a nominal generating capacity of 96.3 MW and firing natural gas or distillate oil (0.2% sulfur)
- o Unit P11 is a Siemens Model V84.3 having a nominal generating capacity of 171 MW and firing distillate oil (0.2% sulfur)
- O Units P12-P14 each consists of a General Electric Model 7EA gas turbine with a nominal generating capacity of 91 MW when firing natural gas or distillate oil (0.05% sulfur)

## **Facility Contact**

1.	Facility Contact Name: Dave Meyer, Senior Environmental Specialist				
2.	Facility Contact Mailing Address				
	Organization/Firm: Florida Power Corporation dba Progress Energy Florida				
	Street Address: 299 First Ave., North, PEF 903				
	City: St.Petersburg State: FL Zip Code: 33701				
3.	Facility Contact Telephone Numbers:				
	Telephone: (727) 820 - 5295 ext. Fax: (727) 820 - 5229				
4.	Facility Contact Email Address: Dave.Meyer@pgnmail.com				

## Facility Primary Responsible Official

Complete if an "application responsible official" is identified in Section I. that is not the facility "primary responsible official."

1.	Facility Primary Responsible Official Name:	
2.	Facility Primary Responsible Official Mailing Address	
	Organization/Firm:	
	Street Address:	
	City: State:	Zip Code:
3.	Facility Primary Responsible Official Telephone Numbers	· .
	Telephone: ( ) - ext. Fax: ( ) -	
4.	Facility Primary Responsible Official Email Address:	

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

## **FACILITY INFORMATION**

## Facility Regulatory Classifications

Check all that would apply *following* completion of all projects and implementation of all other changes proposed in this application for air permit. Refer to instructions to distinguish between a "major source" and a "synthetic minor source."

1. Small Business Stationary Source Unknown			
2. Synthetic Non-Title V Source			
3. X Title V Source			
4. X Major Source of Air Pollutants, Other than Hazardous Air Pollutants (HAPs)			
5. Synthetic Minor Source of Air Pollutants, Other than HAPs			
6. Major Source of Hazardous Air Pollutants (HAPs)			
7. Synthetic Minor Source of HAPs			
8. X One or More Emissions Units Subject to NSPS (40 CFR Part 60)			
9. One or More Emissions Units Subject to Emission Guidelines (40 CFR Part 60)			
10. One or More Emissions Units Subject to NESHAP (40 CFR Part 61 or Part 63)			
11. Title V Source Solely by EPA Designation (40 CFR 70.3(a)(5))			
12. Facility Regulatory Classifications Comment:			
The combustion turbines No. 1, 2, 3, 4, 5, and 6 are not subject to NSPS for stationary gas turbines (49 CFR Part 60, Subpart GG), or the Acid Rain Program  The combustion turbines No. 7, 8, 9, 10, 11, 18, 19 and 20 are subject to NSPS for stationary gas turbines (49 CFR Part 60, Subpart GG), and the Acid Rain Program.			

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## **FACILITY INFORMATION**

## List of Pollutants Emitted by Facility

1. Pollutant Emitted	2. Pollutant Classification	3. Emissions Cap [Y or N]?
СО	A	
SAM	<b>A</b>	
NO <sub>X</sub>	<b>A</b>	
РМ	<b>A</b>	
PM <sub>10</sub>	A	
SO <sub>2</sub>	<b>A</b>	
VOC	A	
· · · · · · · · · · · · · · · · · · ·	·	
·		
	·	

## **B. EMISSIONS CAPS**

## Facility-Wide or Multi-Unit Emissions Caps

1. Pollutant Subject to Emissions Cap	2. Facility Wide Cap [Y or N]? (all units)	3. Emissions Unit ID No.s Under Cap (if not all units)	4. Hourly Cap (lb/hr)	5. Annual Cap (ton/yr)	6. Basis for Emissions Cap
		,			
-					
_					

7. Facility-Wide or Multi-Unit Emissions Cap Comment:

10DEP Form No. 62-210.900(1) - Form Effective: 2/2/06

## C. FACILITY ADDITIONAL INFORMATION

## Additional Requirements for All Applications, Except as Otherwise Stated

	1.	Facility Plot Plan: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)  X Attached, Document ID: IC-FI-C1 Previously Submitted, Date:				
	2.	<ul> <li>Process Flow Diagram(s): (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)</li> <li>X Attached, Document ID: IC-FI-C2 Previously Submitted, Date:</li> </ul>				
	3.	Precautions to Prevent Emissions of Unconfined Particulate Matter: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)  X Attached, Document ID: IC-FI-C3 Previously Submitted, Date:				
	Ad	ditional Requirements for Air Construction Permit Applications - N/A				
	1.	Area Map Showing Facility Location:  Attached, Document ID: Not Applicable (existing permitted facility)				
[	2.	<ul> <li>Description of Proposed Construction, Modification, or Plantwide Applicability Limit (PAL):</li> <li>Attached, Document ID:</li> </ul>				
	3.	Rule Applicability Analysis:  Attached, Document ID:				
ſ	4.	List of Exempt Emissions Units (Rule 62-210.300(3), F.A.C.):  Attached, Document ID: Not Applicable (no exempt units at facility)				
	5.	Fugitive Emissions Identification:  Attached, Document ID: Not Applicable				
	5.	Air Quality Analysis (Rule 62-212.400(7), F.A.C.):  Attached, Document ID: Not Applicable				
•	7.	Source Impact Analysis (Rule 62-212.400(5), F.A.C.):  Attached, Document ID: Not Applicable				
	:	Air Quality Impact since 1977 (Rule 62-212.400(4)(e), F.A.C.):  Attached, Document ID: Not Applicable				
	•	Additional Impact Analyses (Rules 62-212.400(8) and 62-212.500(4)(e), F.A.C.):  Attached, Document ID: Not Applicable				
	10.	Alternative Analysis Requirement (Rule 62-212.500(4)(g), F.A.C.):  Attached, Document ID:  Not Applicable				

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## **FACILITY INFORMATION**

## **Additional Requirements for FESOP Applications**

1.	List of Exempt Emissions Units (Rule 62-210.300(3)(a) or (b)1., F.A.C.):  Attached, Document ID:  X Not Applicable (no exempt units at facility)				
Ac	Additional Requirements for Title V Air Operation Permit Applications				
1.	. List of Insignificant Activities (Required for initial/renewal applications only):  X Attached, Document ID: IC-FI-CV1 Not Applicable (revision application)				
2.	Identification of Applicable Requirements (Required for initial/renewal applications, and for revision applications if this information would be changed as a result of the revision being sought):   X Attached, Document ID: IC-FI-CV2  Not Applicable (revision application with no change in applicable requirements)				
3.					
4.	<ul> <li>4. List of Equipment/Activities Regulated under Title VI (If applicable, required for initial/renewal applications only):         <ul> <li>x Attached, Document ID: IC-FI-CV4</li> <li>Equipment/Activities On site but Not Required to be Individually Listed</li> <li>Not Applicable</li> </ul> </li> </ul>				
5. Verification of Risk Management Plan Submission to EPA (If applicable, required for initial/renewal applications only):					
	Attached, Document ID: X Not Applicable				
6.	Requested Changes to Current Title V Air Operation Permit:  X Attached, Document ID: IC-FI-CV6				
<u>Ad</u>	ditional Requirements Comment				

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FACILITY ATTACHMENTS

Attachment IC-FI-C1
Area Map and Facility Plot Plan



0237530\4\4.4\4.4.1\IC-F1-C1.doc

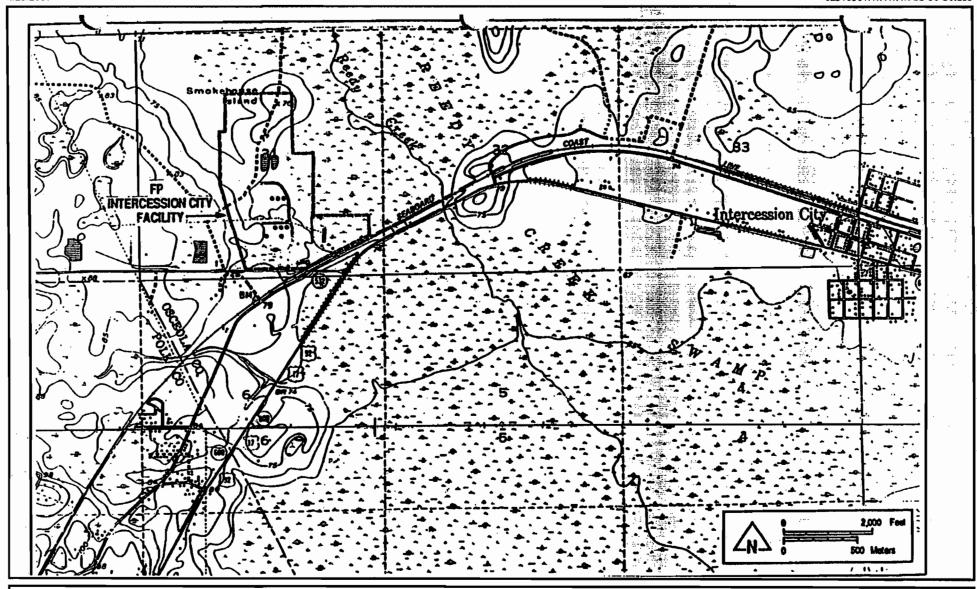
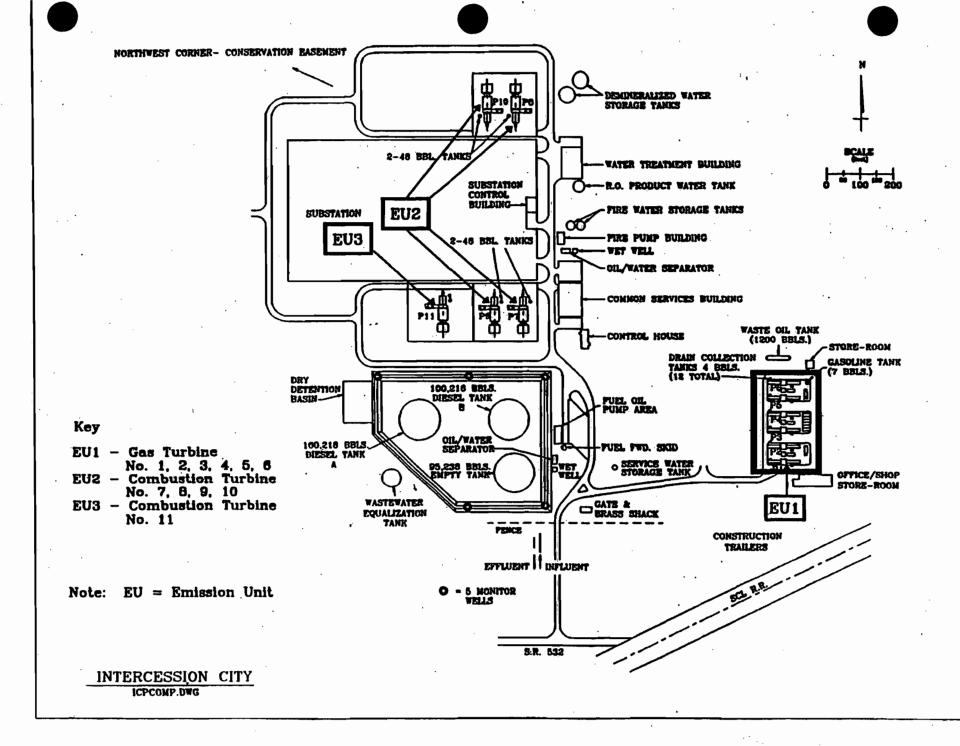
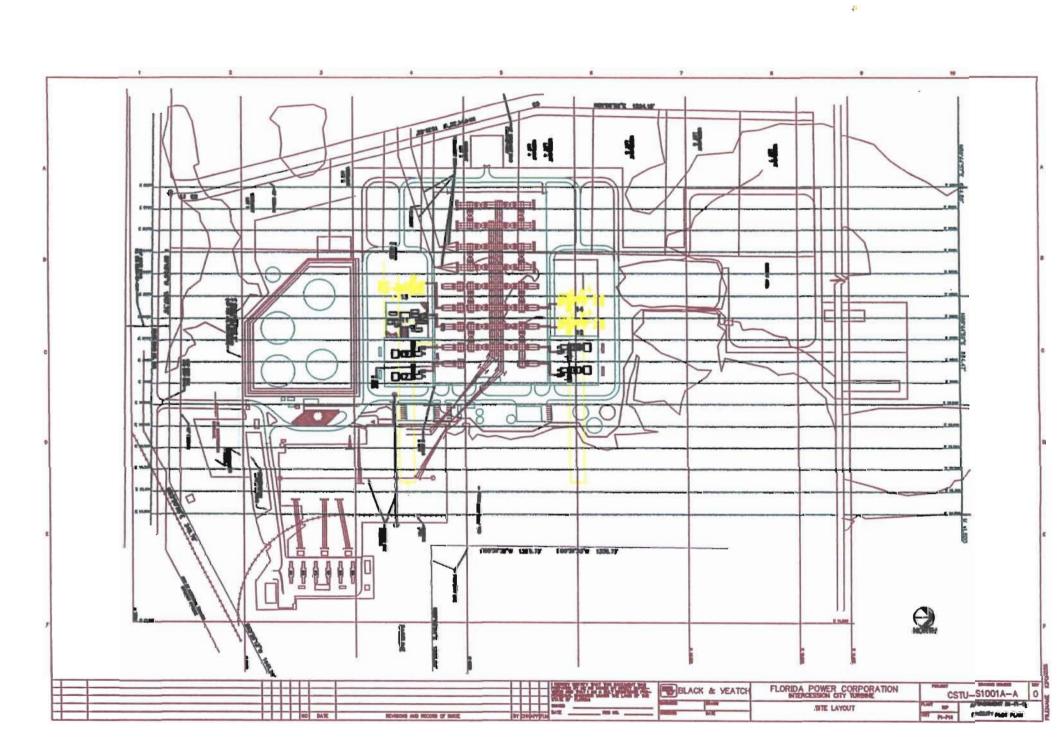


Figure IC-FI-C1. Area Map Showing Facility Location Process Flow Diagram

Source: Golder, 2001.







Attachment IC-FI-C2 Process Flow Diagram

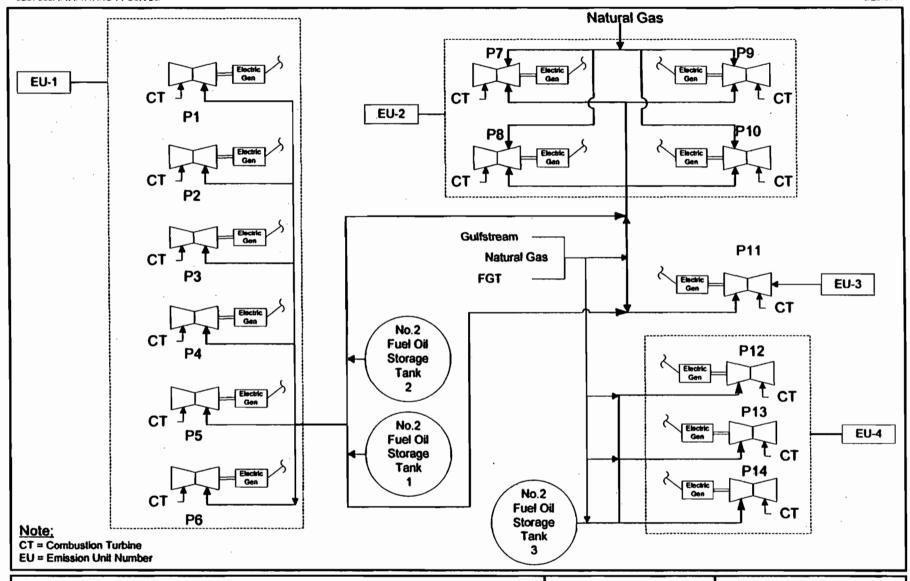
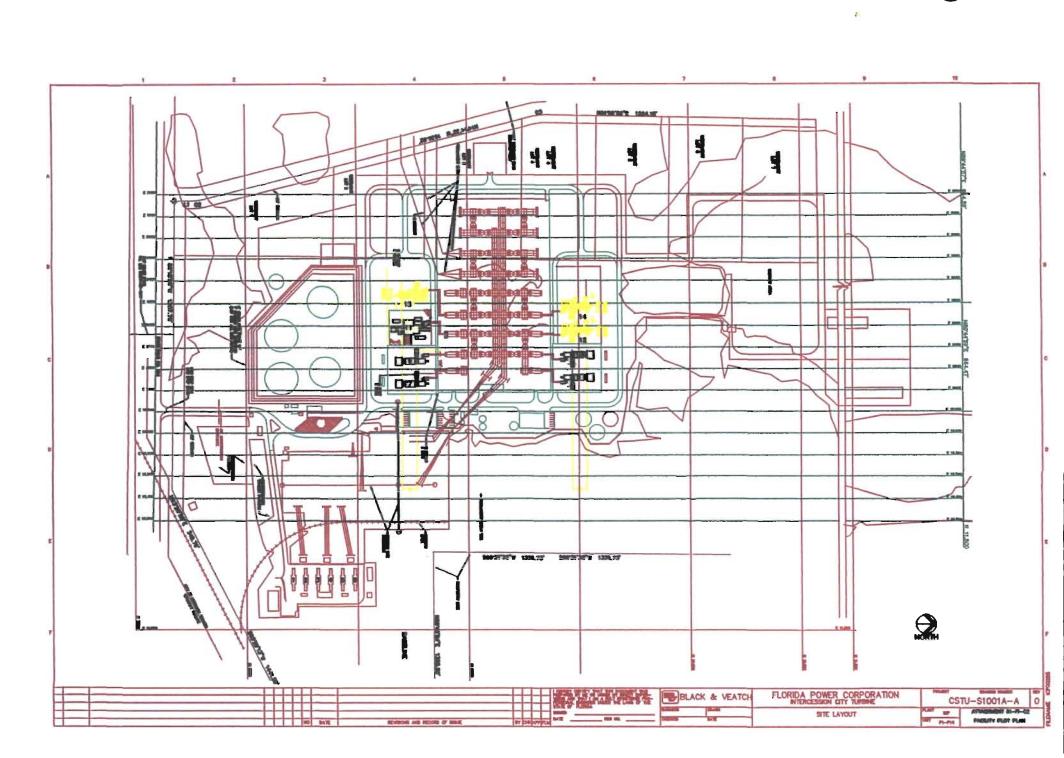


Figure IC-FI-C2. Facility Process Flow Diagram Florida Power - Intercession City

Process Flor Solid/Liquid	w Legend
Gas	
Steam	





Attachment IC-FI-C3
Precautions to Prevent Emissions of Unconfined Particulate Matter

06/20/07 073-89506

### **ATTACHMENT IC-FI-C3**

## Precautions to Prevent Emissions Of Unconfined Particulate Matter

The facility has negligible amounts of unconfined particulate matter as a result of the operation of the facility. Potential examples of particulate matter include:

- Fugitive dust from paved and unpaved roads, and
- Fugitive particulates from the use of bagged chemical products.

Operational measures are undertaken at the facility which also minimizes particulate emissions, in accordance with Rule 62-296.310(3), F.A.C.:

- Maintenance of paved areas as needed,
- Regular mowing of grass and care of vegetation,
- · Limiting access to plant property by unnecessary vehicles, and
- Additional or alternative activities may be utilized to minimize unconfined particulate emissions.

Attachment IC-FI-CV1
List of Insignificant Activities

### **Attachment IC-FI-CV1**

## List of Insignificant (and Unregulated) Emissions Units and/or Activities

The facilities, emissions units, or pollutant-emitting activities listed in Rule 62-210.300(3)(a), F.A.C., Categorical Exemptions, are exempt from the permitting requirements of Chapters 62-210, and 62-4, F.A.C.; provided, however, that exempt emissions units shall be subject to any applicable emission limiting standards and the emissions from exempt emissions units or activities shall be considered in determining the potential emissions of the facility containing such emissions units. Emissions units and pollutant-emitting activities exempt from permitting under Rules 62-210.300(3)(a), F.A.C., shall not be exempt from the permitting requirements of Chapter 62-213, F.A.C., if they are contained within a Title V source; however, such emissions units and activities shall be considered insignificant for Title V purposes provided they also meet the criteria of Rule 62-213.430(6)(b), F.A.C. No emissions unit shall be entitled to an exemption from permitting under Rules 62-210.300(3)(a), F.A.C., if its emissions, in combination with the emissions of other units and activities at the facility, would cause the facility to emit or have potential to emit any pollutant in such amount as to make the facility a Title V source.

The below listed emissions units and/or activities are considered insignificant pursuant to Rule 62-213.430(6), F.A.C.

1	Lube Oil System Vents			. '				: .	
2	Lube Oil Reservoir Tank							-1	
3	Oil Water Separators	* * .				,	•		
4	Hazardous Waste Building	,	٠.			٠.			
5	Parts Washers/Degreasers							•	A 2
6	Waste Oil Storage Tanks						2 1 E		
.7	Lube Oil Storage Building		•		. '		. :		* * *
8	Portable Unleaded Gasoline	Tank		1	4				
9	No. 2 Diesel Fuel Tank	* .	÷						

<u>Unregulated Emission Units and/or Activities</u>. An emission unit which emits no "emissions-limeted pollutant" and which is subject to no unit-specific work practice standard, though it may be subject to regulations applied on a facility-wide basis (e.g., unconfined emissions, opor, general opacity) or to regulations that require only that it be able to prove exemption from unit-specific emissions or work practice standards.

The below listed emissions units and/or activities are neither 'regulated emissions units' nor 'insignificant emissions units'.

<b>Emissions Unit</b>	Description
-013	Surface Coating and Solvent Cleaning
-014	General Purpose Engines
-015	Fuel Storage Tanks
-016	Helper Cooling Towers
-017	Emergency Generator

Attachment IC-FI-CV2 Identification of Applicable Requirements

## ATTACHMENT IC-FI-CV2 TITLE V CORE LIST

Effective: 03/01/02

(Updated based on current version of FDEP Air Rules)

[Note: The Title V Core List is meant to simplify the completion of the "List of Applicable Regulations" for DEP Form No. 62-210.900(1), Application for Air Permit - Long Form. The Title V Core List is a list of rules to which all Title V Sources are presumptively subject. The Title V Core List may be referenced in its entirety, or with specific exceptions. The Department may periodically update the Title V Core List.]

### Federal:

### (description)

- 40 CFR 60, Subpart GG: NSPS for combustion Turbines
- 40 CFR 61, Subpart M: NESHAP for Asbestos.
- 40 CFR 75 Acid Rain Program
- 40 CFR 82: Protection of Stratospheric Ozone.
- 40 CFR 82, Subpart B: Servicing of Motor Vehicle Air Conditioners (MVAC).
- 40 CFR 82, Subpart F: Recycling and Emissions Reduction.

#### State:

### (description)

## CHAPTER 62-4, F.A.C.: PERMITS, effective 02-07-06

- 62-4.030, F.A.C.: General Prohibition.
- 62-4.040, F.A.C.: Exemptions.
- 62-4.050, F.A.C.: Procedure to Obtain Permits; Application.
- 62-4.060, F.A.C.: Consultation.
- 62-4.070, F.A.C.: Standards for Issuing or Denying Permits; Issuance; Denial.
- 62-4.080, F.A.C.: Modification of Permit Conditions.
- 62-4.090, F.A.C.: Renewals.
- 62-4.100, F.A.C.: Suspension and Revocation.
- 62-4.110, F.A.C.: Financial Responsibility.
- 62-4.120, F.A.C.: Transfer of Permits.
- 62-4.130, F.A.C.: Plant Operation Problems.
- 62-4.150, F.A.C.: Review.
- 62-4.160, F.A.C.: Permit Conditions.
- 62-4.210, F.A.C.: Construction Permits.
- 62-4.220, F.A.C.: Operation Permit for New Sources.

## CHAPTER 62-210, F.A.C.: STATIONARY SOURCES - GENERAL REQUIREMENTS, effective 05-09-07

- 62-210.300, F.A.C.: Permits Required.
- 62-210.300(1), F.A.C.: Air Construction Permits.
- 62-210.300(2), F.A.C.: Air Operation Permits.
- 62-210.300(3), F.A.C.: Exemptions.
- 62-210.300(5), F.A.C.: Notification of Startup.
- 62-210.300(6), F.A.C.: Emissions Unit Reclassification.
- 62-210.300(7), F.A.C.: Transfer of Air Permits.

## ATTACHMENT IC-FI-CV2 TITLE V CORE LIST

Effective: 03/01/02

(Updated based on current version of FDEP Air Rules)

- 62-210.350, F.A.C.: Public Notice and Comment.
- 62-210.350(1), F.A.C.: Public Notice of Proposed Agency Action.
- 62-210.350(2), F.A.C.: Additional Public Notice Requirements for Emissions Units Subject to Prevention of Significant Deterioration or Nonattainment-Area Preconstruction Review.
- 62-210.350(3), F.A.C.: Additional Public Notice Requirements for Sources Subject to Operation Permits for Title V Sources.
- 62-210.360, F.A.C.: Administrative Permit Corrections.
- 62-210.370(3), F.A.C.: Annual Operating Report for Air Pollutant Emitting Facility.
- 62-210.400, F.A.C.: Emission Estimates.
- 62-210.650, F.A.C.: Circumvention.
- 62-210.700, F.A.C.: Excess Emissions.
- 62-210.900, F.A.C.: Forms and Instructions.
- 62-210.900(1), F.A.C.: Application for Air Permit Title V Source, Form and Instructions.
- 62-210.900(5), F.A.C.: Annual Operating Report for Air Pollutant Emitting Facility, Form and Instructions.
- 62-210.900(7), F.A.C.: Application for Transfer of Air Permit Title V and Non-Title V Source.

## CHAPTER 62-212, F.A.C.: STATIONARY SOURCES - PRECONSTRUCTION REVIEW, effective 02-02-06

## CHAPTER 62-213, F.A.C.: OPERATION PERMITS FOR MAJOR SOURCES OF AIR POLLUTION, effective 04-14-03

- 62-213.205, F.A.C.: Annual Emissions Fee.
- 62-213.400, F.A.C.: Permits and Permit Revisions Required.
- 62-213.410, F.A.C.: Changes Without Permit Revision.
- 62-213.412, F.A.C.: Immediate Implementation Pending Revision Process.
- 62-213.415, F.A.C.: Trading of Emissions Within a Source.
- 62-213.420, F.A.C.: Permit Applications.
- 62-213.430, F.A.C.: Permit Issuance, Renewal, and Revision.
- 62-213.440, F.A.C.: Permit Content.
- 62-213.450, F.A.C.: Permit Review by EPA and Affected States
- 62-213.460, F.A.C.: Permit Shield.
- 62-213.900, F.A.C.: Forms and Instructions.
- 62-213.900(1), F.A.C.: Major Air Pollution Source Annual Emissions Fee Form.
- 62-213.900(7), F.A.C.: Statement of Compliance Form.

## ATTACHMENT IC-FI-CV2 TITLE V CORE LIST

Effective: 03/01/02

(Updated based on current version of FDEP Air Rules)

## CHAPTER 62-296, F.A.C.: STATIONARY SOURCES - EMISSION STANDARDS, effective 05-09-07

62-296.320(4)(c), F.A.C.: Unconfined Emissions of Particulate Matter.

62-296.320(2), F.A.C.: Objectionable Odor Prohibited.

## CHAPTER 62-297, F.A.C.: STATIONARY SOURCES - EMISSIONS MONITORING, effective 2-12-04

62-297.310, F.A.C.: General Test Requirements.

62-297.310(4), F.A.C.: Applicable Test Procedures.

62-297.310(7), F.A.C.: Frequency of Compliance Tests.

62-297.310(6), F.A.C.: Repaired Stack Sampling Facilities.

62-297.310(5), F.A.C.: Determination of Process Variables.

62-297.510(8), F.A.C.: Test Report.

62-297.620, F.A.C.: Exceptions and Approval of Alternate Procedures and Requirements.

### Miscellaneous:

CHAPTER 28-106, F.A.C.: Decisions Determining Substantial Interests

CHAPTER 62-110, F.A.C.: Exception to the Uniform Rules of Procedure, effective 07-01-98

CHAPTER 62-256, F.A.C.: Open Burning and Frost Protection Fires, effective 11-30-94

CHAPTER 62-257, F.A.C.: Asbestos Notification and Fee, effective 02-09-99

CHAPTER 62-281, F.A.C.: Motor Vehicle Air Conditioning Refrigerant Recovery and Recycling, effective 09-10-96

#### APPENDIX TV-6, TITLE V CONDITIONS (version dated 06/23/06)

[Note: This attachment includes "canned conditions" developed from the "Title V Core List."]

[Permitting note: APPENDIX TV-6, TITLE V CONDITIONS, is distributed to the permittee only. Other persons requesting copies of these conditions shall be provided one copy when requested or otherwise appropriate.]

#### Chapter 62-4, F.A.C.

1. Not federally enforceable. General Prohibition. Any stationary installation which will reasonably be expected to be a source of pollution shall not be operated, maintained, constructed, expanded, or modified without the appropriate and valid permits issued by the Department, unless the source is exempted by Department rule. The Department may issue a permit only after it receives reasonable assurance that the installation will not cause pollution in violation of any of the provisions of Chapter 403, F.S., or the rules promulgated thereunder. A permitted installation may only be operated, maintained, constructed, expanded or modified in a manner that is consistent with the terms of the permit.

[Rule 62-4.030, Florida Administrative Code (F.A.C.); and, Section 403.087, Florida Statute (F.S.)]

- 2. Not federally enforceable. Procedures to Obtain Permits and Other Authorizations: Applications.
- (1) Any person desiring to obtain a permit from the Department shall apply on forms prescribed by the Department and shall submit such additional information as the Department by law may require.
- (2) All applications and supporting documents shall be filed in quadruplicate with the Department.
- (3) To ensure protection of public health, safety, and welfare, any construction, modification, or operation of an installation which may be a source of pollution, shall be in accordance with sound professional engineering practices pursuant to Chapter 471, F.S. All applications for a Department permit shall be certified by a professional engineer registered in the State of Florida except, when the application is for renewal of an air pollution operation permit at a non-Title V source as defined in Rule 62-210.200, F.A.C., or where professional engineering is not required by Chapter 471, F.S. Where required by Chapter 471 or 492, F.S., applicable portions of permit applications and supporting documents which are submitted to the Department for public record shall be signed and sealed by the professional(s) who prepared or approved them.
- (4) Processing fees for air construction permits shall be in accordance with Rule 62-4.050(4), F.A.C.
- (5)(a) To be considered by the Department, each application must be accompanied by the proper processing fee. The fee shall be paid by check, payable to the Department of Environmental Protection. The fee is non-refundable except as provided in Section 120.60, F.S., and in this section.
  - (b) When an application is received without the required fee, the Department shall acknowledge receipt of the application and shall immediately notify the applicant by certified mail that the required fee was not received and advise the applicant of the correct fee. The Department shall take no further action until the correct fee is received. If a fee was received by the Department which is less than the amount required, the Department shall return the fee along with the written notification.
  - (c) Upon receipt of the proper application fee, the permit processing time requirements of Sections 120.60(2) and 403.0876, F.S., shall begin.
  - (d) If the applicant does not submit the required fee within ten days of receipt of written notification, the Department shall either return the unprocessed application or arrange with the applicant for the pick up of the application.
  - (e) If an applicant submits an application fee in excess of the required fee, the permit processing time requirements of Sections 120.60(2) and 403.0876, F.S., shall begin upon receipt, and the Department shall refund to the applicant the amount received in excess of the required fee.
- (6) Any substantial modification to a complete application shall require an additional processing fee determined pursuant to the schedule set forth in Rule 62-4.050, F.A.C., and shall restart the time requirements of Sections 120.60 and 403.0876, F.S. For purposes of this subsection, the term "substantial modification" shall mean a modification which is reasonably expected to lead to substantially different environmental impacts which require a detailed review.
- (7) Modifications to existing permits proposed by the permittee which require substantial changes in the existing permit or require substantial evaluation by the Department of potential impacts of the proposed modifications shall require the same fee as a new application for the same time duration except for modification under Chapter 62-45, F.A.C. [Rule 62-4.050, F.A.C.]

3. <u>Standards for Issuing or Denying Permits</u>. Except as provided at Rule 62-213.460, F.A.C., the issuance of a permit does not relieve any person from complying with the requirements of Chapter 403, F.S., or Department rules. [Rule 62-4.070(7), F.A.C.]

#### Modification of Permit Conditions.

- (1) For good cause 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. For the purpose of this section, good cause shall include, but not be limited to, any of the following: (also, see Condition No. 38.)
  - (a) A showing that an improvement in effluent or emission quality or quantity can be accomplished because of technological advances without unreasonable hardship.
  - (b) A showing that a higher degree of treatment is necessary to effect the intent and purpose of Chapter 403, F.S.
  - (c) A showing of any change in the environment or surrounding conditions that requires a modification to conform to applicable air or water quality standards.
  - (e) Adoption or revision of Florida Statutes, rules, or standards which require the modification of a permit condition for compliance.
- (2) A permittee may request a modification of a permit by applying to the Department.
- (3) A permittee may request that a permit be extended as a modification of the permit. Such a request must be submitted to the Department in writing before the expiration of the permit. Upon timely submittal of a request for extension, unless the permit automatically expires by statute or rule, the permit will remain in effect until final agency action is taken on the request. For construction permits, an extension shall be granted if the applicant can demonstrate reasonable assurances that, upon completion, the extended permit will comply with the standards and conditions required by applicable regulation. For all other permits, an extension shall be granted if the applicant can demonstrate reasonable assurances that the extended permit will comply with the standards and conditions applicable to the original permit. A permit for which the permit application fee was prorated in accordance with Rule 62-4.050(4)(v), F.A.C., shall not be extended. In no event shall a permit be extended or remain in effect longer than the time limits established by statute or rule.

[Rule 62-4.080, F.A.C.]

5. Renewals. Prior to 180 days before the expiration of a permit issued pursuant to Chapter 62-213, F.A.C., the permittee shall apply for a renewal of a permit using forms incorporated by reference in the specific rule chapter for that kind of permit. A renewal application shall be timely and sufficient. If the application is submitted prior to 180 days before expiration of the permit, it will be considered timely and sufficient. If the renewal application is submitted at a later date, it will not be considered timely and sufficient unless it is submitted and made complete prior to the expiration of the operation permit. When the application for renewal is timely and sufficient, the existing permit shall remain in effect until the renewal application has been finally acted upon by the Department or, if there is court review of the Department's final agency action, until a later date is required by Section 120.60, F.S., provided that, for renewal of a permit issued pursuant to Chapter 62-213, F.A.C., the applicant complies with the requirements of Rules 62-213.420(1)(b)3, and 4., F.A.C.

[Rule 62-4.090, F.A.C.]

### 6. Suspension and Revocation.

- (1) Permits shall be effective until suspended, revoked, surrendered, or expired and shall be subject to the provisions of Chapter 403, F.S., and rules of the Department.
- (2) Failure to comply with pollution control laws and rules shall be grounds for suspension or revocation.
- (3) A permit issued pursuant to Chapter 62-4, F.A.C., shall not become a vested property right in the permittee. The Department may revoke any permit issued by it if it finds that the permit holder or his agent:
  - (a) Submitted false or inaccurate information in his application or operational reports.
  - (b) Has violated law, Department orders, rules or permit conditions.
  - (c) Has failed to submit operational reports or other information required by Department rules.
  - (d) Has refused lawful inspection under Section 403.091, F.S.
- (4) No revocation shall become effective except after notice is served by personal services, certified mail, or newspaper notice pursuant to Section 120.60(7), F.S., upon the person or persons named therein and a hearing held if requested within the time specified in the notice. The notice shall specify the provision of the law, or rule alleged to be violated, or the permit condition or Department order alleged to be violated, and the facts alleged to constitute a violation thereof. [Rule 62-4.100, F.A.C.]

- 7. Not federally enforceable. <u>Financial Responsibility</u>. The Department may require an applicant to submit proof of financial responsibility and may require the applicant to post an appropriate bond to guarantee compliance with the law and Department rules. [Rule 62-4.110, F.A.C.]
- Transfer of Permits.
- (1) Within 30 days after the sale or legal transfer of a permitted facility, an "Application for Transfer of Permit" (DEP Form 62-1.201(1)) must be submitted to the Department. This form must be completed with the notarized signatures of both the permittee and the proposed new permittee. For air permits, an "Application for Transfer of Air Permit" (DEP Form 62-210.900(7)) shall be submitted.
- (2) The Department shall approve the transfer of a permit unless it determines that the proposed new permittee cannot provide reasonable assurances that conditions of the permit will be met. The determination shall be limited solely to the ability of the new permittee to comply with the conditions of the existing permit, and it shall not concern the adequacy of these permit conditions. If the Department proposes to deny the transfer, it shall provide both the permittee and the proposed new permittee a written objection to such transfer together with notice of a right to request a Chapter 120, F.S., proceeding on such determination.
- (3) Within 30 days of receiving a properly completed Application for Transfer of Permit form, the Department shall issue a final determination. The Department may toll the time for making a determination on the transfer by notifying both the permittee and the proposed new permittee that additional information is required to adequately review the transfer request. Such notification shall be served within 30 days of receipt of an Application for Transfer of Permit form, completed pursuant to Rule 62-4.120(1), F.A.C. If the Department fails to take action to approve or deny the transfer within 30 days of receipt of the completed Application for Transfer of Permit form, or within 30 days of receipt of the last item of timely requested additional information, the transfer shall be deemed approved.
- (4) The permittee is encouraged to apply for a permit transfer prior to the sale or legal transfer of a permitted facility. However, the transfer shall not be effective prior to the sale or legal transfer.
- (5) Until this transfer is approved by the Department, the permittee and any other person constructing, operating, or maintaining the permitted facility shall be liable for compliance with the terms of the permit. The permittee transferring the permit shall remain liable for corrective actions that may be required as a result of any violations occurring prior to the sale or legal transfer of the facility. [Rule 62-4.120, F.A.C.]
- 9. <u>Plant Operation-Problems</u>. If the permittee is temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by hazard of fire, wind or by other cause, the permittee shall immediately notify the Department. Notification shall include pertinent information as to the cause of the problem, and what steps are being taken to correct the problem and to prevent its 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 Department rules. (also, see Condition No. 10.)

[Rule 62-4.130, F.A.C.]

- 10. For purposes of notification to the Department pursuant to Condition No. 9., Condition No. 12.(8), and Rule 62-4.130, F.A.C., Plant Operation-Problems, "immediately" shall mean the same day, if during a workday (i.e., 8:00 a.m. 5:00 p.m.), or the first business day after the incident, excluding weekends and holidays; and, for purposes of 40 CFR 70.6(a)(3)(iii)(B), "prompt" shall have the same meaning as "immediately". [also, see Conditions Nos. 9. and 12.(8).]
  [40 CFR 70.6(a)(3)(iii)(B)]
- 11. Not federally enforceable. Review. Failure to request a hearing within 14 days of receipt of notice of proposed or final agency action on a permit application or as otherwise required in Chapter 62-103, F.A.C., shall be deemed a waiver of the right to an administrative hearing.

  [Rule 62-4.150, F.A.C.]
- 12. Permit Conditions. All permits issued by the Department shall include the following general conditions:
- (1) The terms, conditions, requirements, limitations and restrictions set forth in this permit, are "permit conditions" and are binding and enforceable pursuant to Sections 403.141, 403.727, or 403.859 through 403.861, F.S. 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 403.987(6) and 403.722(5), F.S., the issuance of this permit does not convey any 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 of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in this 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 F.S. 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 and 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 reasonable times, access to the premises where the permitted activity is located or conducted to:
  - (a) Have access to and copy any records that must be kept under 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: (also, see Condition No. 10.)
  - (a) A description of and cause of noncompliance; and
  - (b) The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance. 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 403.111 and 403.73, F.S. 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 Rule 62-4.120, 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.
- (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 for this permit. These materials shall be retained at least five (5) 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;
- 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 the 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. [Rules 62-4.160 and 62-213.440(1)(b), F.A.C.]

#### 13. Construction Permits.

- (1) No person shall construct any installation or facility which will reasonably be expected to be a source of air pollution without first applying for and receiving a construction permit from the Department unless exempted by statute or Department rule. In addition to the requirements of Chapter 62-4, F.A.C., applicants for a Department Construction Permit shall submit the following as applicable:
  - (a) A completed application on forms furnished by the Department.
  - (b) An engineering report covering:
    - 1. Plant description and operations,
    - 2. Types and quantities of all waste material to be generated whether liquid, gaseous or solid,
    - 3. Proposed waste control facilities,
    - 4. The treatment objectives,
    - 5. The design criteria on which the control facilities are based, and
    - 6. Other information deemed relevant.

Design criteria submitted pursuant to Rule 62-4.210(1)(b)5., F.A.C., shall be based on the results of laboratory and pilot-plant scale studies whenever such studies are warranted. The design efficiencies of the proposed waste treatment facilities and the quantities and types of pollutants in the treated effluents or emissions shall be indicated. Work of this nature shall be subject to the requirements of Chapter 471, F.S. Where confidential records are involved, certain information may be kept confidential pursuant to Section 403.111, F.S.

- (c) The owners' written guarantee to meet the design criteria as accepted by the Department and to abide by Chapter 403, F.S., and the rules of the Department as to the quantities and types of materials to be discharged from the installation. The owner may be required to post an appropriate bond or other equivalent evidence of financial responsibility to guarantee compliance with such conditions in instances where the owner's financial resources are inadequate or proposed control facilities are experimental in nature.
- (2) The construction permit may contain conditions and an expiration date as determined by the Secretary or the Secretary's designee.
- (3) When the Department issues a permit to construct, the permittee shall be allowed a period of time, specified in the permit, to construct, and to operate and test to determine compliance with Chapter 403, F.S., and the rules of the Department and, where applicable, to apply for and receive an operation permit. The Department may require tests and evaluations of the treatment facilities by the permittee at his/her expense.

  [Rule 62-4.210, F.A.C.]
- 14. Not federally enforceable. Operation Permit for New Sources. To properly apply for an operation permit for new sources the applicant shall submit the appropriate fee and certification that construction was completed, noting any deviations from the conditions in the construction permit and test results where appropriate.

  [Rule 62-4.220, F.A.C.]

#### Chapters 28-106 and 62-110, F.A.C.

- 15. <u>Public Notice, Public Participation, and Proposed Agency Action</u>. The permittee shall comply with all of the requirements for public notice, public participation, and proposed agency action pursuant to Rules 62-110.106 and 62-210.350, F.A.C. [Rules 62-110.106, 62-210.350 and 62-213.430(1)(b), F.A.C.]
- 16. <u>Administrative Hearing</u>. The permittee shall comply with all of the requirements for a petition for administrative hearing or waiver of right to administrative proceeding pursuant to Rules 28-106.201, 28-106.301 and 62-110.106, F.A.C. [Rules 28-106.201, 28-106.301 and 62-110.106, F.A.C.]

#### Chapter 62-204\_F.A.C.

17. Asbestos. This permit does not authorize any demolition or renovation of the facility or its parts or components which involves asbestos removal. This permit does not constitute a waiver of any of the requirements of Chapter 62-257, F.A.C., and 40 CFR 61, Subpart M, National Emission Standard for Asbestos, adopted and incorporated by reference in Rule 62-204.800, F.A.C. Compliance with Chapter 62-257, F.A.C., and 40 CFR 61, Subpart M, Section 61.145, is required for any asbestos demolition or renovation at the source.

[40 CFR 61; Rule 62-204.800, F.A.C.; and, Chapter 62-257, F.A.C.]

#### Chapter 62-210, F.A.C.

- 18. Permits Required. Unless exempted from permitting pursuant to Rule 62-210.300(3)(a) or (b), F.A.C., or Rule 62-4.040, F.A.C., or unless specifically authorized by provision of Rule 62-210.300(4), F.A.C., or Rule 62-213.300, F.A.C., the owner or operator of any facility or emissions unit which emits or can reasonably be expected to emit any air pollutant shall obtain an appropriate permit from the Department prior to beginning construction, reconstruction pursuant to 40 CFR 60.15 or 63.2, modification, or the addition of pollution control equipment; or to authorize initial or continued operation of the emissions unit; or to establish a PAL or Air Emissions Bubble. All emissions limitations, controls, and other requirements imposed by such permits shall be at least as stringent as any applicable limitations and requirements contained in or enforceable under the State Implementation Plan (SIP) or that are otherwise federally enforceable. Except as provided at Rule 62-213.460, F.A.C., issuance of a permit does not relieve the owner or operator of a facility or an emissions unit from complying with any applicable requirements, any emission limiting standards or other requirements of the air pollution rules of the Department or any other such requirements under federal, state, or local law.
- (1) Air Construction Permits.
  - (a) Unless exempt from permitting pursuant to Rule 62-210.300(3)(a) or (b), F.A.C., or Rule 62-4.040, F.A.C., an air construction permit shall be obtained by the owner or operator of any proposed new, reconstructed, or modified facility or emissions unit, or any new pollution control equipment prior to the beginning of construction, reconstruction pursuant to 40 CFR 60,15 or 63.2, or modification of the facility or emissions unit or addition of the pollution control equipment; or to establish a PAL; in accordance with all applicable provisions of Chapter 62-210, F.A.C., Chapter 62-212, F.A.C., and Chapter 62-4, F.A.C. Except as provided under Rule 62-213.415, F.A.C., the owner or operator of any facility seeking to create or change an air emissions bubble shall obtain an air construction permit in accordance with all the applicable provisions of Chapter 62-210, F.A.C., Chapters 62-212 and 62-4, F.A.C. The construction permit shall be issued for a period of time sufficient to allow construction, reconstruction or modification of the facility or emissions unit or addition of the air pollution control equipment; and operation while the owner or operator of the new, reconstructed or modified facility or emissions unit or the new pollution control equipment is conducting tests or otherwise demonstrating initial compliance with the conditions of the
  - (b) Notwithstanding the expiration of an air construction permit, all limitations and requirements of such permit that are applicable to the design and operation of the permitted facility or emissions unit shall remain in effect until the facility or emissions unit is permanently shut down, except for any such limitation or requirement that is obsolete by its nature (such as a requirement for initial compliance testing) or any such limitation or requirement that is changed in accordance with the provisions of Rule 62-210.300(1)(b)1., F.A.C. Either the applicant or the Department can propose that certain conditions be considered obsolete. Any conditions or language in an air construction permit that are included for informational purposes only, if they are transferred to the air operation permit, shall be transferred for informational purposes only and shall not become enforceable conditions unless voluntarily agreed to by the permittee or otherwise required under Department rules.
    - 1. Except for those limitations or requirements that are obsolete, all limitations and requirements of an air construction permit shall be included and identified in any air operation permit for the facility or emissions unit. The limitations and requirements included in the air operation permit can be changed, and thereby superseded, through the issuance of an air construction permit, federally enforceable state air operation permit, federally enforceable air general permit, or Title V air operation permit; provided, however, that:
      - a. Any change that would constitute an administrative correction may be made pursuant to Rule 62-210.360, F.A.C.; b. Any change that would constitute a modification, as defined at Rule 62-210.200, F.A.C., shall be accomplished

only through the issuance of an air construction permit; and

- c. Any change in a permit limitation or requirement that originates from a permit issued pursuant to 40 CFR 52.21, Rule 62-204.800(11)(d)2., F.A.C., Rule 62-212.400, F.A.C., Rule 62-212.500, F.A.C., or any former codification of Rule 62-212.400 or Rule 62-212.500, F.A.C., shall be accomplished only through the issuance of a new or revised air construction permit under Rule 62-204.800(11)(d)2., Rule 62-212.400 or Rule 62-212.500, F.A.C., as
- 2. The force and effect of any change in a permit limitation or requirement made in accordance with the provisions of Rule 62-210.300(1)(b)1., F.A.C., shall be the same as if such change were made to the original air construction permit.
- 3. Nothing in Rule 62-210.300(1)(b), F.A.C., shall be construed as to allow operation of a facility or emissions unit without a valid air operation permit.

- (2) Air Operation Permits. Upon expiration of the air operation permit for any existing facility or emissions unit, subsequent to construction or modification, or subsequent to the creation of or change to a bubble, and demonstration of compliance with the conditions of the construction permit for any new or modified facility or emissions unit, any air emissions bubble, or as otherwise provided in Chapter 62-210, F.A.C., or Chapter 62-213, F.A.C., the owner or operator of such facility or emissions unit shall obtain a renewal air operation permit, an initial air operation permit or air general permit, or an administrative correction or revision of an existing air operation permit, whichever is appropriate, in accordance with all applicable provisions of Chapter 62-210, F.A.C., Chapter 62-213, F.A.C., and Chapter 62-4, F.A.C.
  - (a) Minimum Requirements for All Air Operation Permits. At a minimum, a permit issued pursuant to this subsection shall:
    - 1. Specify the manner, nature, volume and frequency of the emissions permitted, and the applicable emission limiting standards or performance standards, if any:
    - Require proper operation and maintenance of any pollution control equipment by qualified personnel, where applicable in accordance with the provisions of any operation and maintenance plan required by the air pollution rules of the Department.
    - 3. Contain an effective date stated in the permit which shall not be earlier than the date final action is taken on the application and be issued for a period, beginning on the effective date, as provided below.
      - a. The operation permit for an emissions unit which is in compliance with all applicable rules and in operational condition, and which the owner or operator intends to continue operating, shall be issued or renewed for a five-year period, except that, for Title V sources subject to Rule 62-213.420(1)(a)1., F.A.C., operation permits shall be extended until 60 days after the due date for submittal of the facility's Title V permit application as specified in Rule 62-213.420(1)(a)1., F.A.C.
      - b. Except as provided in Rule 62-210.300(2)(a)3.d., F.A.C., the operation permit for an emissions unit which has been shut down for six months or more prior to the expiration date of the current operation permit, shall be renewed for a period not to exceed five years from the date of shutdown, even if the emissions unit is not maintained in operational condition, provided:
        - (i) the owner or operator of the emissions unit demonstrates to the Department that the emissions unit may need to be reactivated and used, or that it is the owner's or operator's intent to apply to the Department for a permit to construct a new emissions unit at the facility before the end of the extension period; and
        - (ii) the owner or operator of the emissions unit agrees to and is legally prohibited from providing the allowable emission permitted by the renewed permit as an emissions offset to any other person under Rule 62-212.500, F.A.C.; and
        - (iii) the emissions unit was operating in compliance with all applicable rules as of the time the source was shut down.
      - c. Except as provided in Rule 62-210.300(2)(a)3.d., F.A.C., the operation permit for an emissions unit which has been shut down for five years or more prior to the expiration date of the current operation permit shall be renewed for a maximum period not to exceed ten years from the date of shutdown, even if the emissions unit is not maintained in operational condition, provided the conditions given in Rule 62-210.300(2)(a)3.b., F.A.C., are met and the owner or operator demonstrates to the Department that failure to renew the permit would constitute a hardship, which may include economic hardship.
      - d. The operation permit for an electric utility generating unit on cold standby or long-term reserve shutdown shall be renewed for a five-year period, and additional five-year periods, even if the unit is not maintained in operational condition, provided the conditions given in Rules 62-210.300(2)(a)3.b.(i) through (iii), F.A.C., are met.
    - 4. In the case of an emissions unit permitted pursuant to Rules 62-210.300(2)(a)3.b., c., and d., F.A.C., include reasonable notification and compliance testing requirements for reactivation of such emissions unit and provide that the owner or operator demonstrate to the Department prior to reactivation that such reactivation would not constitute reconstruction pursuant to Rule 62-204.800(8), F.A.C.

[Rules 62-210.300(1) & (2), F.A.C.]

- 19. Not federally enforceable. Notification of Startup. The owners or operator of any emissions unit or facility which has a valid air operation permit which has been shut down more than one year, shall notify the Department in writing of the intent to start up such emissions unit or facility, a minimum of 60 days prior to the intended startup date.
  - (a) The notification shall include information as to the startup date, anticipated emission rates or pollutants released, changes to processes or control devices which will result in changes to emission rates, and any other conditions which may differ from the valid outstanding operation permit.

(b) If, due to an emergency, a startup date is not known 60 days prior thereto, the owner shall notify the Department as soon as possible after the date of such startup is ascertained.

[Rule 62-210.300(5), F.A.C.]

#### 20. Emissions Unit Reclassification.

- (a) Any emissions unit whose operation permit has been revoked as provided for in Chapter 62-4, F.A.C., shall be deemed permanently shut down for purposes of Rule 62-212.500, F.A.C. Any emissions unit whose permit to operate has expired without timely renewal or transfer may be deemed permanently shut down, provided, however, that no such emissions unit shall be deemed permanently shut down if, within 20 days after receipt of written notice from the Department, the emissions unit owner or operator demonstrates that the permit expiration resulted from inadvertent failure to comply with the requirements of Rule 62-4.090, F.A.C., and that the owner or operator intends to continue the emissions unit in operation, and either submits an application for an air operation permit or complies with permit transfer requirements, if applicable.
- (b) If the owner or operator of an emissions unit which is so permanently shut down, applies to the Department for a permit to reactivate or operate such emissions unit, the emissions unit will be reviewed and permitted as a new emissions unit. [Rule 62-210.300(6), F.A.C.]

#### 21. Transfer of Air Permits.

- (a) An air permit is transferable only after submission of an Application for Transfer of Air Permit (DEP Form 62-210.900(7)) and Department approval in accordance with Rule 62-4.120, F.A.C. For Title V permit transfers only, a complete application for transfer of air permit shall include the requirements of 40 CFR 70.7(d)(1)(iv), adopted and incorporated by reference at Rule 62-204.800, F.A.C. Within 30 days after approval of the transfer of permit, the Department shall update the permit by an administrative permit correction pursuant to Rule 62-210.360, F.A.C.
- (b) For an air general permit, the provision of Rules 62-210.300(7)(a) and 62-4.120, F.A.C., do not apply. Thirty (30) days before using an air general permit, the new owner must submit an air general permit notification to the Department in accordance with Rule 62-210.300(4), F.A.C., or Rule 62-213.300(2)(b), F.A.C. [Rule 62-210.300(7), F.A.C.]

#### 22. Public Notice and Comment.

- (1) Public Notice of Proposed Agency Action.
  - (a) A notice of proposed agency action on permit application, where the proposed agency action is to issue the permit, shall be published by any applicant for:
    - 1. An air construction permit;
    - 2. An air operation permit, permit renewal or permit revision subject to Rule 62-210.300(2)(b), F.A.C., (i.e., a FESOP), except as provided in Rule 62-210.300(2)(b)1.b., F.A.C.; or
    - 3. An air operation permit, permit renewal, or permit revision subject to Chapter 62-213, F.A.C., except Title V air general permits or those permit revisions meeting the requirements of Rule 62-213.412(1), F.A.C.
  - (b) The notice required by Rule 62-210.350(1)(a), F.A.C., shall be published in accordance with all otherwise applicable provisions of Rule 62-110.106, F.A.C. A public notice under Rule 62-210.350(1)(a)1., F.A.C., for an air construction permit may be combined with any required public notice under Rule 62-210.350(1)(a)2. or 3., F.A.C., for air operation permits. If such notices are combined, the public notice must comply with the requirements for both notices.
  - (c) Except as otherwise provided at Rules 62-210.350(2), (5), and (6), F.A.C., each notice of intent to issue an air construction permit shall provide a 14-day period for submittal of public comments.
- (2) Additional Public Notice Requirements for Emissions Units Subject to Prevention of Significant Deterioration or Nonattainment Area Preconstruction Review.
  - (a) Before taking final agency action on a construction permit application for any proposed new or modified facility or emissions unit subject to the preconstruction review requirements of Rule 62-212.400 or 62-212.500, F.A.C., the Department shall comply with all applicable provisions of Rule 62-110.106, F.A.C., and provide an opportunity for public comment which shall include as a minimum the following:
    - 1. A complete file available for public inspection in at least one location in the district affected which includes the information submitted by the owner or operator, exclusive of confidential records under Section 403.111, F.S., and the Department's analysis of the effect of the proposed construction or modification on ambient air quality, including the Department's preliminary determination of whether the permit should be approved or disapproved;
    - 2. A 30-day period for submittal of public comments; and

- 3. A notice, by advertisement in a newspaper of general circulation in the county affected, specifying the nature and location of the proposed facility or emissions unit, whether BACT or LAER has been determined, the degree of PSD increment consumption expected, if applicable, and the location of the information specified in paragraph 1, above; and notifying the public of the opportunity for submitting comments and requesting a public hearing.
- (b) The notice provided for in Rule 62-210.350(2)(a)3., F.A.C., shall be prepared by the Department and published by the applicant in accordance with all applicable provisions of Rule 62-110.106, F.A.C., except that the applicant shall cause the notice to be published no later than thirty (30) days prior to final agency action.
- (c) A copy of the notice provided for in Rule 62-210.350(2)(a)3., F.A.C., shall also be sent by the Department to the Regional Office of the U. S. Environmental Protection Agency and to all other state and local officials or agencies having cognizance over the location of such new or modified facility or emissions unit, including local air pollution control agencies, chief executives of city or county government, regional land use planning agencies, and any other state, Federal Land Manager, or Indian Governing Body whose lands may be affected by emissions from the new or modified facility or emissions unit.
- (d) A copy of the notice provided for in Rule 62-210.350(2)(a)3., F.A.C., shall be displayed in the appropriate district, branch and local program offices.
- (e) An opportunity for public hearing shall be provided in accordance with Chapter 120, F.S., and Rule 62-110.106, F.A.C.
- (f) Any public comments received shall be made available for public inspection in the location where the information specified in Rule 62-210.350(2)(a)1., F.A.C., is available and shall be considered by the Department in making a final determination to approve or deny the permit.
- (g) The final determination shall be made available for public inspection at the same location where the information specified in Rule 62-210.350(2)(a)1., F.A.C., was made available.
- (h) For a proposed new or modified emissions unit which would be located within 100 kilometers of any Federal Class I area or whose emissions may affect any Federal Class I area, and which would be subject to the preconstruction review requirements of Rule 62-212.400 or 62-212.500, F.A.C.:
  - 1. The Department shall mail or transmit to the Administrator a copy of the initial application for an air construction permit and notice of every action related to the consideration of the permit application.
  - 2. The Department shall mail or transmit to the Federal Land Manager of each affected Class I area a copy of any written notice of intent to apply for an air construction permit; the initial application for an air construction permit, including all required analyses and demonstrations; any subsequently submitted information related to the application; the preliminary determination and notice of proposed agency action on the permit application; and any petition for an administrative hearing regarding the application or the Department's proposed action. Each such document shall be mailed or transmitted to the Federal Land Manager within fourteen (14) days after its receipt by the Department.
- (3) Additional Public Notice Requirements for Facilities Subject to Operation Permits for Title V Sources.
  - (a) Before taking final agency action to issue a new, renewed, or revised air operation permit subject to Chapter 62-213, F.A.C., the Department shall comply with all applicable provisions of Rule 62-110.106, F.A.C., and provide an opportunity for public comment which shall include as a minimum the following:
    - 1. A complete file available for public inspection in at least one location in the district affected which includes the information submitted by the owner or operator, exclusive of confidential records under Section 403.111, F.S.; and
    - 2. A 30-day period for submittal of public comments.
  - (b) The notice provided for in Rule 62-210.350(3)(a), F.A.C., shall be prepared by the Department and published by the applicant in accordance with all applicable provisions of Rule 62-110.106, F.A.C., except that the applicant shall cause the notice to be published no later than thirty (30) days prior to final agency action. If written comments received during the 30-day comment period on a draft permit result in the Department's issuance of a revised draft permit in accordance with Rule 62-213.430(1), F.A.C., the Department shall require the applicant to publish another public notice in accordance with Rule 62-210.350(1)(a), F.A.C.
  - (c) The notice shall identify:
    - 1. The facility;
    - 2. The name and address of the office at which processing of the permit occurs;
    - 3. The activity or activities involved in the permit action;
    - 4. The emissions change involved in any permit revision;
    - 5. The name, address, and telephone number of a Department representative from whom interested persons may obtain additional information, including copies of the permit draft, the application, and all relevant supporting materials, including any permit application, compliance plan, permit, monitoring report, and compliance statement required pursuant to Chapter 62-213, F.A.C. (except for information entitled to confidential treatment pursuant to Section 403.111, F.S.), and all other materials available to the Department that are relevant to the permit decision;

- 6. A brief description of the comment procedures required by Rule 62-210.350(3), F.A.C.;
- 7. The time and place of any hearing that may be held, including a statement of procedure to request a hearing (unless a hearing has already been scheduled); and
- 8. The procedures by which persons may petition the Administrator to object to the issuance of the proposed permit after expiration of the Administrator's 45-day review period.

[Rules 62-210.350(1) thru (3), F.A.C.]

#### 23. Administrative Permit Corrections.

- (1) A facility owner shall notify the Department by letter of minor corrections to information contained in a permit. Such notifications shall include:
  - (a) Typographical errors noted in the permit;
  - (b) Name, address or phone number change from that in the permit;
  - (c) A change requiring more frequent monitoring or reporting by the permittee;
  - (d) A change in ownership or operational control of a facility, subject to the following provisions:
    - 1. The Department determines that no other change in the permit is necessary;
    - The permittee and proposed new permittee have submitted an Application for Transfer of Air Permit, and the Department has approved the transfer pursuant to Rule 62-210.300(7), F.A.C.; and
    - 3. The new permittee has notified the Department of the effective date of sale or legal transfer.
  - (e) Changes listed at 40 CFR 72.83(a)(1), (2), (6), (9) and (10), adopted and incorporated by reference at Rule 62-204.800, F.A.C., and changes made pursuant to Rules 62-214.340(1) and (2), F.A.C., to Title V sources subject to emissions limitations or reductions pursuant to 42 USC ss. 7651-76510;
  - (f) Changes listed at 40 CFR 72.83(a)(11) and (12), adopted and incorporated by reference at Rule 62-204.800, F.A.C., to Title V sources subject to emissions limitations or reductions pursuant to 42 USC ss. 7651-76510, provided the notification is accompanied by a copy of any EPA determination concerning the similarity of the change to those listed at Rule 62-210.360(1)(e), F.A.C.; and
  - (g) Any other similar minor administrative change at the source.
- (2) Upon receipt of any such notification, the Department shall within 60 days correct the permit and provide a corrected copy to the owner.
- (3) After first notifying the owner, the Department shall correct any permit in which it discovers errors of the types listed at Rules 62-210.360(1)(a) and (b), F.A.C., and provide a corrected copy to the owner.
- (4) For Title V source permits, other than general permits, a copy of the corrected permit shall be provided to EPA and any approved local air program in the county where the facility or any part of the facility is located.

  [Rule 62-210.360, F.A.C.]

#### 24. Emissions Computation and Reporting.

- (1) Applicability. This rule sets forth required methodologies to be used by the owner or operator of a facility for computing actual emissions, baseline actual emissions, and net emissions increase, as defined at Rule 62-210.200, F.A.C., and for computing emissions for purposes of the reporting requirements of subsection 62-210.370(3) and paragraph 62-212.300(1)(e), F.A.C., or of any permit condition that requires emissions be computed in accordance with this rule. This rule is not intended to establish methodologies for determining compliance with the emission limitations of any air permit.
- (2) Computation of Emissions. For any of the purposes set forth in subsection 62-210.370(1), F.A.C., the owner or operator of a facility shall compute emissions in accordance with the requirements set forth in this subsection.
  - (a) Basic Approach. The owner or operator shall employ, on a pollutant-specific basis, the most accurate of the approaches set forth below to compute the emissions of a pollutant from an emissions unit; provided, however, that nothing in this rule shall be construed to require installation and operation of any continuous emissions monitoring system (CEMS), continuous parameter monitoring system (CPMS), or predictive emissions monitoring system (PEMS) not otherwise required by rule or permit, nor shall anything in this rule be construed to require performance of any stack testing not otherwise required by rule or permit.
    - 1. If the emissions unit is equipped with a CEMS meeting the requirements of paragraph 62-210.370(2)(b), F.A.C., the owner or operator shall use such CEMS to compute the emissions of the pollutant, unless the owner or operator demonstrates to the department that an alternative approach is more accurate because the CEMS represents still-emerging technology.
    - 2. If a CEMS is not available or does not meet the requirements of paragraph 62-210.370(2)(b), F.A.C, but emissions of the pollutant can be computed pursuant to the mass balance methodology of paragraph 62-210.370(2)(c), F.A.C., the owner or operator shall use such methodology, unless the owner or operator demonstrates to the department that an alternative approach is more accurate.
    - 3. If a CEMS is not available or does not meet the requirements of paragraph 62-210.370(2)(b), F.A.C., and emissions cannot be computed pursuant to the mass balance methodology, the owner or operator shall use an emission factor meeting the requirements of paragraph 62-210.370(2)(d), F.A.C., unless the owner or operator demonstrates to the department that an alternative approach is more accurate.
  - (b) Continuous Emissions Monitoring System (CEMS).
    - An owner or operator may use a CEMS to compute emissions of a pollutant for purposes of this rule provided:

       The CEMS complies with the applicable certification and quality assurance requirements of 40 CFR Part 60,
       Appendices B and F, or, for an acid rain unit, the certification and quality assurance requirements of 40 CFR Part 75,
       all adopted by reference at Rule 62-204.800, F.A.C.; or

- b. The owner or operator demonstrates that the CEMS otherwise represents the most accurate means of computing emissions for purposes of this rule.
- 2. Stack gas volumetric flow rates used with the CEMS to compute emissions shall be obtained by the most accurate of the following methods as demonstrated by the owner or operator:
  - a. A calibrated flowmeter that records data on a continuous basis, if available; or
  - b. The average flow rate of all valid stack tests conducted during a five-year period encompassing the period over which the emissions are being computed, provided all stack tests used shall represent the same operational and physical configuration of the unit.
- 3. The owner or operator may use CEMS data in combination with an appropriate f-factor, heat input data, and any other necessary parameters to compute emissions if such method is demonstrated by the owner or operator to be more accurate than using a stack gas volumetric flow rate as set forth at subparagraph 62-210.370(2)(b)2., F.A.C., above.
- (c) Mass Balance Calculations.
  - 1. An owner or operator may use mass balance calculations to compute emissions of a pollutant for purposes of this rule provided the owner or operator:
    - a. Demonstrates a means of validating the content of the pollutant that is contained in or created by all materials or fuels used in or at the emissions unit; and
    - b. Assumes that the emissions unit emits all of the pollutant that is contained in or created by any material or fuel used in or at the emissions unit if it cannot otherwise be accounted for in the process or in the capture and destruction of the pollutant by the unit's air pollution control equipment.
  - 2. Where the vendor of a raw material or fuel which is used in or at the emissions unit publishes a range of pollutant content from such material or fuel, the owner or operator shall use the highest value of the range to compute the emissions, unless the owner or operator demonstrates using site-specific data that another content within the range is more accurate.
  - 3. In the case of an emissions unit using coatings or solvents, the owner or operator shall document, through purchase receipts, records and sales receipts, the beginning and ending VOC inventories, the amount of VOC purchased during the computational period, and the amount of VOC disposed of in the liquid phase during such period.
- (d) Emission Factors.
  - 1. An owner or operator may use an emission factor to compute emissions of a pollutant for purposes of this rule provided the emission factor is based on site-specific data such as stack test data, where available, unless the owner or operator demonstrates to the department that an alternative emission factor is more accurate. An owner or operator using site-specific data to derive an emission factor, or set of factors, shall meet the following requirements.
    - a. If stack test data are used, the emission factor shall be based on the average emissions per unit of input, output, or gas volume, whichever is appropriate, of all valid stack tests conducted during at least a five-year period encompassing the period over which the emissions are being computed, provided all stack tests used shall represent the same operational and physical configuration of the unit.
    - b. Multiple emission factors shall be used as necessary to account for variations in emission rate associated with variations in the emissions unit's operating rate or operating conditions during the period over which emissions are computed.
    - c. The owner or operator shall compute emissions by multiplying the appropriate emission factor by the appropriate input, output or gas volume value for the period over which the emissions are computed. The owner or operator shall not compute emissions by converting an emission factor to pounds per hour and then multiplying by hours of operation, unless the owner or operator demonstrates that such computation is the most accurate method available.
  - 2. If site-specific data are not available to derive an emission factor, the owner or operator may use a published emission factor directly applicable to the process for which emissions are computed. If no directly-applicable emission factor is available, the owner or operator may use a factor based on a similar, but different, process.
- (e) Accounting for Emissions During Periods of Missing Data from CEMS, PEMS, or CPMS. In computing the emissions of a pollutant, the owner or operator shall account for the emissions during periods of missing data from CEMS, PEMS, or CPMS using other site-specific data to generate a reasonable estimate of such emissions.
- (f) Accounting for Emissions During Periods of Startup and Shutdown. In computing the emissions of a pollutant, the owner or operator shall account for the emissions during periods of startup and shutdown of the emissions unit.
- (g) Fugitive Emissions. In computing the emissions of a pollutant from a facility or emissions unit, the owner or operator shall account for the fugitive emissions of the pollutant, to the extent quantifiable, associated with such facility or emissions unit.
- (h) Recordkeeping. The owner or operator shall retain a copy of all records used to compute emissions pursuant to this rule for a period of five years from the date on which such emissions information is submitted to the department for any regulatory purpose.
- (3) Annual Operating Report for Air Pollutant Emitting Facility.
  - (a) The Annual Operating Report for Air Pollutant Emitting Facility (DEP Form No. 62-210.900(5)) shall be completed each year.
  - (c) The annual operating report shall be submitted to the appropriate Department of Environmental Protection (DEP) division, district or DEP-approved local air pollution control program office by March 1 of the following year.
  - (d) Beginning with 2007 annual emissions, emissions shall be computed in accordance with the provisions of Rule 62-210.370(2), F.A.C., for purposes of the annual operating report.

[Rules 62-210.370(1), (2) and (3)(a), (c) & (d), F.A.C.]

- 25. <u>Circumvention</u>. No person shall circumvent any air pollution control device, or allow the emission of air pollutants without the applicable air pollution control device operating properly.

  [Rule 62-210.650, F.A.C.]
- 26. Forms and Instructions. The forms used by the Department in the stationary source control program are adopted and incorporated by reference in this section. The forms are listed by rule number, which is also the form number, with the subject, title and effective date. Copies of forms may be obtained by writing to the Department of Environmental Protection, Division of Air Resource Management, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, or by accessing the Division's website at www.dep.state.fl.us/air. The requirement of Rule 62-4.050(2), F.A.C., to file application forms in quadruplicate is waived if an air permit application is submitted using the Department's electronic application form.
- (1) Application for Air Permit Long Form, Form and Instructions (Effective 02-02-2006).
  - (a) Acid Rain Part, Form and Instructions (Effective 06-16-2003).
    - 1. Repowering Extension Plan, Form and Instructions (Effective 07/01/1995).
    - 2. New Unit Exemption, Form and Instructions (Effective 04/16/2001).
    - 3. Retired Unit Exemption, Form and Instructions (Effective 04/16/2001).
    - 4. Phase II NOx Compliance Plan, Form and Instructions (Effective 01/06/1998).
    - 5. Phase II NOx Averaging Plan, Form (Effective 01/06/1998).
  - (b) Reserved.
- (5) Annual Operating Report for Air Pollutant Emitting Facility, Form and Instructions (Effective 02/11/1999).
- (7) Application for Transfer of Air Permit Title V Source, (Effective 04/16/2001). [Rule 62-210.900, F.A.C.]

#### Chapter 62-213, F.A.C.

- 27. Responsible Official.
- (1) Each Title V source must identify a responsible official on each application for Title V permit, permit revision, and permit renewal. For sources with only one responsible official, this is how the Title V source designates the responsible official.
- (2) Each Title V source may designate more than one responsible official, provided a primary responsible official is designated as responsible for the certifications of all other designated responsible officials. Any action taken by the primary responsible official shall take precedence over any action taken by any other designated responsible official.
- (3) Any facility initially designating more than one responsible official or changing the list of responsible officials must submit a Responsible Official Notification Form (DEP Form No. 62-213.900(8)) designating all responsible officials for a Title V source, stating which responsible official is the primary responsible official, and providing an effective date for any changes to the list of responsible officials. Each individual listed on the Responsible Official Notification Form must meet the definition of responsible official given at Rule 62-210.200, F.A.C.
- (4) A Title V source with only one responsible official shall submit DEP Form No. 62-213.900(8) for a change in responsible official.
- (5) No person shall take any action as a responsible official at a Title V source unless designated a responsible official as required by this rule, except that the existing responsible official of any Title V source which has a change in responsible official during the term of the permit and before the effective date of this rule may continue to act as a responsible official until the first submittal of DEP Form No. 62-213.900(8) or the next application for Title V permit, permit revision or permit renewal, whichever comes first. [Rules 62-213.202(1) thru (5), F.A.C.]
- 28. Annual Emissions Fee. Each Title V source permitted to operate in Florida must pay between January 15 and March 1 of each year, upon written notice from the Department, an annual emissions fee in an amount determined as set forth in Rule 62-213.205(1), F.A.C.
- (1)(g) If the Department has not received the fee by February 15 of the year following the calendar year for which the fee is calculated, the Department will send the primary responsible official of the Title V source a written warning of the consequences for failing to pay the fee by March 1. If the fee is not postmarked by March 1 of the year due, the Department shall impose, in addition to the fee, a penalty of 50 percent of the amount of the fee unpaid plus interest on such amount computed in accordance with Section 220.807, F.S. If the Department determines that a submitted fee was inaccurately calculated, the Department shall either refund to the permittee any amount overpaid or notify the permittee of any amount underpaid. The Department shall not impose a penalty or interest on any amount underpaid, provided that the permittee has timely remitted payment of at least 90 percent of the amount determined to be due and remits full payment within 60 days after receipt of notice of the amount underpaid. The Department shall waive the collection of underpayment and shall not refund overpayment of the fee, if the amount is less than 1 percent of the fee due, up to \$50.00. The Department shall make every effort to provide a timely assessment of the adequacy of the submitted fee. Failure to

pay timely any required annual emissions fee, penalty, or interest constitutes grounds for permit revocation pursuant to Rule 62-4.100, F.A.C.

- (1)(i) Any documentation of actual hours of operation, actual material or heat input, actual production amount, or actual emissions used to calculate the annual emissions fee shall be retained by the owner for a minimum of five (5) years and shall be made available to the Department upon request.
- (1)(j) A completed DEP Form 62-213.900(1), "Major Air Pollution Source Annual Emissions Fee Form", must be submitted by a responsible official with the annual emissions fee.

[Rules 62-213.205, (1)(g), (1)(i) & (1)(j), F.A.C.]

- 29. Reserved.
- 30. Reserved.
- 31. <u>Air Operation Permit Fees</u>. No permit application processing fee, renewal fee, modification fee or amendment fee is required for an operation permit for a Title V source.

  [Rule 62-213.205(4), F.A.C.]
- 32. <u>Permits and Permit Revisions Required</u>. All Title V sources are subject to the permit requirements of Chapter 62-213, F.A.C., except those Title V sources permittable pursuant to Rule 62-213.300, F.A.C., Title V Air General Permits.
- (1) No Title V source may operate except in compliance with Chapter 62-213, F.A.C.
- (2) Except as provided in Rule 62-213.410, F.A.C., no source with a permit issued under the provisions of Chapter 62-213, F.A.C., shall make any changes in its operation without first applying for and receiving a permit revision if the change meets any of the following:
  - (a) Constitutes a modification;
  - (b) Violates any applicable requirement;
  - (c) Exceeds the allowable emissions of any air pollutant from any unit within the source;
  - (d) Contravenes any permit term or condition for monitoring, testing, recordkeeping, reporting or of a compliance certification requirement;
  - (e) Requires a case-by-case determination of an emission limitation or other standard or a source specific determination of ambient impacts, or a visibility or increment analysis under the provisions of Chapter 62-212 or 62-296, F.A.C.;
  - (f) Violates a permit term or condition which the source has assumed for which there is no corresponding underlying applicable requirement to which the source would otherwise be subject;
  - (g) Results in the trading of emissions among units within a source except as specifically authorized pursuant to Rule 62-213.415, F.A.C.;
  - (h) Results in the change of location of any relocatable facility identified as a Title V source pursuant to paragraph (a)-(e), (g) or (h) of the definition of "major source of air pollution" at Rule 62-210.200, F.A.C.;
  - (i) Constitutes a change at an Acid Rain Source under the provisions of 40 CFR 72.81(a)(1), (2), or (3), (b)(1) or (b)(3), hereby incorporated by reference;
  - (j) Constitutes a change in a repowering plan, nitrogen oxides averaging plan, or nitrogen oxides compliance deadline extension at an Acid Rain Source;

[Rules 62-213.400(1) & (2), F.A.C.]

- 33. Changes Without Permit Revision. Title V sources having a valid permit issued pursuant to Chapter 62-213, F.A.C., may make the following changes without permit revision, provided that sources shall maintain source logs or records to verify periods of operation:
- (1) Permitted sources may change among those alternative methods of operation;
- (2) A permitted source may implement operating changes, as defined in Rule 62-210.200, F.A.C., after the source submits any forms required by any applicable requirement and provides the Department and EPA with at least 7 days written notice prior to implementation. The source and the Department shall attach each notice to the relevant permit;
  - (a) The written notice shall include the date on which the change will occur, and a description of the change within the permitted source, the pollutants emitted and any change in emissions, and any term or condition becoming applicable or no longer applicable as a result of the change;
  - (b) The permit shield described in Rule 62-213.460, F.A.C., shall not apply to such changes;
- (3) Permitted sources may implement changes involving modes of operation only in accordance with Rule 62-213.415, F.A.C. [Rule 62-213.410, F.A.C.]

#### 34. Immediate Implementation Pending Revision Process.

- (1) Those permitted Title V sources making any change that constitutes a modification pursuant to the definition of modification at Rule 62-210.200, F.A.C., but which would not constitute a modification pursuant to 42 USC 7412(a) or to 40 CFR 52.01, 60.2, or 61.15, adopted and incorporated by reference at Rule 62-204.800, F.A.C., may implement such change prior to final issuance of a permit revision, provided the change:
  - (a) Does not violate any applicable requirement;
  - (b) Does not contravene any permit term or condition for monitoring, testing, recordkeeping or reporting, or any compliance certification requirement;
  - (c) Does not require or change a case-by-case determination of an emission limitation or other standard, or a source-specific determination of ambient impacts, or a visibility or increment analysis under the provisions of Chapter 62-212 or 62-296, E.A.C.:
  - (d) Does not seek to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement and which the source has assumed to avoid an applicable requirement to which the source would otherwise be subject including any federally enforceable emissions cap or federally enforceable alternative emissions limit.
- (2) A Title V source may immediately implement such changes after they have been incorporated into the terms and conditions of a new or revised construction permit issued pursuant to Chapter 62-212, F.A.C., and after the source provides to EPA, the Department, each affected state and any approved local air program having geographic jurisdiction over the source, a copy of the source's application for operation permit revision. The Title V source may conform its application for construction permit to include all information required by Rule 62-213.420, F.A.C., in lieu of submitting separate application forms.
- (3) The Department shall process the application for operation permit revision in accordance with the provisions of Chapter 62-213, F.A.C., except that the Department shall issue a draft permit revision or a determination to deny the revision within 60 days of receipt of a complete application for operation permit revision or, if the Title V source has submitted a construction permit application conforming to the requirements of Rule 62-213.420, F.A.C., the Department shall issue a draft permit or a determination to deny the revision at the same time the Department issues its determination on issuance or denial of the construction permit application. The Department shall not take final action on the operation permit revision application until all the requirements of Rules 62-213.430(1)(a), (c), (d), and (e), F.A.C., have been complied with.
- (4) Pending final action on the operation permit revision application, the source shall implement the changes in accordance with the terms and conditions of the source's new or revised construction permit. If any terms and conditions of the new or revised construction permit have not been complied with prior to the issuance of the draft operation permit revision, the operation permit shall include a compliance plan in accordance with the provisions of Rule 62-213.440(2), F.A.C.
- (5) The permit shield described in Rule 62-213.460, F.A.C., shall not apply to such changes until after the Department takes final action to issue the operation permit revision.
- (6) If the Department denies the source's application for operation permit revision, the source shall cease implementation of the proposed changes.

[Rule 62-213.412, F.A.C.]

#### 35. Permit Applications.

- (1) Duty to Apply. For each Title V source, the owner or operator shall submit a timely and complete permit application in compliance with the requirements of Rules 62-213.420, F.A.C., and Rules 62-4.050(1) through (3), F.A.C.
  - (a) Timely Application.
    - 3. For purposes of permit renewal, a timely application is one that is submitted in accordance with Rule 62-4.090, F.A.C.
  - (b) Complete Application.
    - 1. Any applicant for a Title V permit, permit revision or permit renewal must submit an application on DEP Form No. 62-210.900(1), which must include all the information specified by Rule 62-213.420(3), F.A.C., except that an application for permit revision must contain only that information related to the proposed change(s) from the currently effective Title V permit and any other requirements that become applicable at the time of application. The applicant shall include information concerning fugitive emissions and stack emissions in the application. Each application for permit, permit revision or permit renewal shall be certified by a responsible official in accordance with Rule 62-213.420(4), F.A.C.
    - 2. For those applicants submitting initial permit applications pursuant to Rule 62-213.420(1)(a)1., F.A.C., a complete application shall be an application that substantially addresses all the information required by the application form number 62-210.900(1), and such applications shall be deemed complete within sixty days of receipt of a signed and certified application unless the Department notifies the applicant of incompleteness within that time. For all other applicants, the applications shall be deemed complete sixty days after receipt, unless the Department, within sixty days after receipt of a signed application for permit, permit revision or permit renewal, requests additional documentation or information needed

to process the application. An applicant making timely and complete application for permit, or timely application for permit renewal as described by Rule 62-4.090(1), F.A.C., shall continue to operate the source under the authority and provisions of any existing valid permit or Florida Electrical Power Plant Siting Certification, and in accordance with applicable requirements of the Acid Rain Program, until the conclusion of proceedings associated with its permit application or until the new permit becomes effective, whichever is later, provided the applicant complies with all the provisions of Rules 62-213.420(1)(b)3. and 4., F.A.C. Failure of the Department to request additional information within sixty days of receipt of a properly signed application shall not impair the Department's ability to request additional information pursuant to Rules 62-213.420(1)(b)3. and 4., F.A.C.

- 3. For those permit applications submitted pursuant to the provisions of Rule 62-213.420(1)(a)1., F.A.C., the Department shall notify the applicant if the Department becomes aware at any time during processing of the application that the application contains incorrect or incomplete information. The applicant shall submit the corrected or supplementary information to the Department within ninety days unless the applicant has requested and been granted additional time to submit the information. Failure of an applicant to submit corrected or supplementary information requested by the Department within ninety days or such additional time as requested and granted shall render the application incomplete.
- 4. For all applications other than those addressed at Rule 62-213.420(1)(b)3., F.A.C., should the Department become aware, during processing of any application that the application contains incorrect information, or should the Department become aware, as a result of comment from an affected State, an approved local air program, EPA, or the public that additional information is needed to evaluate the application, the Department shall notify the applicant within 30 days. When an applicant becomes aware that an application contains incorrect or incomplete information, the applicant shall submit the corrected or supplementary information to the Department. If the Department notifies an applicant that corrected or supplementary information is necessary to process the permit, and requests a response, the applicant shall provide the information to the Department within ninety days of the Department request unless the applicant has requested and been granted additional time to submit the information or, the applicant shall, within ninety days, submit a written request that the Department process the application without the information. Failure of an applicant to submit corrected or supplementary information requested by the Department within ninety days, or such additional time as requested and granted, or to demand in writing within ninety days that the application be processed without the information shall render the application incomplete. Nothing in this section shall limit any other remedies available to the Department.

[Rules 62-213.420(1)(a)3. and 62-213.420(1)(b)1., 2., 3. & 4., F.A.C.]

- 36. <u>Confidential Information</u>. Whenever an applicant submits information under a claim of confidentiality pursuant to Section 403.111, F.S., the applicant shall also submit a copy of all such information and claim directly to EPA. (also, see Condition No. 50.) [Rule 62-213.420(2), F.A.C.]
- 37. Standard Application Form and Required Information. Applications shall be submitted under Chapter 62-213, F.A.C., on forms provided by the Department and adopted by reference in Rule 62-210.900(1), F.A.C. The information as described in Rule 62-210.900(1), F.A.C., shall be included for the Title V source and each emissions unit. An application must include information sufficient to determine all applicable requirements for the Title V source and each emissions unit and to evaluate a fee amount pursuant to Rule 62-213.205, F.A.C.
  [Rule 62-213.420(3), F.A.C.]
- 38. a. <u>Permit Renewal and Expiration</u>. Permits being renewed are subject to the same requirements that apply to permit issuance at the time of application for renewal. Permit renewal applications shall contain that information identified in Rules 62-210.900(1) and 62-213.420(3), F.A.C. Unless a Title V source submits a timely application for permit renewal in accordance with the requirements of Rule 62-4.090(1), F.A.C., the existing permit shall expire and the source's right to operate shall terminate. No Title V permit will be issued for a new term except through the renewal process.
- b. <u>Permit Revision Procedures.</u> Permit revisions shall meet all requirements of Chapter 62-213, F.A.C., including those for content of applications, public participation, review by approved local programs and affected states, and review by EPA, as they apply to permit issuance and permit renewal, except that permit revisions for those activities implemented pursuant to Rule 62-213.412, F.A.C., need not meet the requirements of Rule 62-213.430(1)(b), F.A.C. The Department shall require permit revision in accordance with the provisions of Rule 62-4.080, F.A.C., and 40 CFR 70.7(f), whenever any source becomes subject to any condition listed at 40

CFR 70.7(f)(1), hereby adopted and incorporated by reference. The below requirements from 40 CFR 70.7(f) are adopted and incorporated by reference in Rule 62-213.430(4), F.A.C.:

- o 40 CFR 70.7(f): Reopening for Cause. (also, see Condition No. 4.)
- (1) This section contains provisions from 40 CFR 70.7(f) that specify the conditions under which a Title V permit shall be reopened prior to the expiration of the permit. A Title V permit shall be reopened and revised under any of the following circumstances:
  - (i) Additional applicable requirements under the Act become applicable to a major Part 70 source with a remaining permit term of 3 or more years. Such a reopening shall be completed not later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 40 CFR 70.4(b)(10)(i) or (ii).
  - (ii) Additional requirements (including excess emissions requirements) become applicable to an affected source under the acid rain program. Upon approved by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit.
  - (iii) The permitting authority or EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.
  - (iv) The Administrator or the permitting authority determines that the permit must be revised or revoked to assure compliance with the applicable requirements.
- (2) Proceedings to reopen and issue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists. Such reopening shall be made as expeditiously as practicable.
- (3) Reopenings under 40 CFR 70.7(f)(1) shall not be initiated before a notice of such intent is provided to the Part 70 source by the permitting authority at least 30 days in advance of the date that the permit is to be reopened, except that the permitting authority may provide a shorter time period in the case of an emergency.

[Rules 62-213.430(3) & (4), F.A.C.; and, 40 CFR 70.7(f)]

- 39. Insignificant Emissions Units or Pollutant-Emitting Activities.
- (a) All requests for determination of insignificant emissions units or activities made pursuant to Rule 62-213.420(3)(n), F.A.C., shall be processed in conjunction with the permit, permit renewal or permit revision application submitted pursuant to Chapter 62-213, F.A.C. Insignificant emissions units or activities shall be approved by the Department consistent with the provisions of Rule 62-4.040(1)(b), F.A.C. Emissions units or activities which are added to a Title V source after issuance of a permit under Chapter 62-213, F.A.C., shall be incorporated into the permit at its next renewal, provided such emissions units or activities have been exempted from the requirement to obtain an air construction permit and also qualify as insignificant pursuant to Rule 62-213.430(6), F.A.C.
- (b) An emissions unit or activity shall be considered insignificant if all of the following criteria are met:
  - 1. Such unit or activity would be subject to no unit-specific applicable requirement;
  - 2. Such unit or activity, in combination with other units or activities proposed as insignificant, would not cause the facility to exceed any major source threshold(s) as defined in Rule 62-213.420(3)(c)1., F.A.C., unless it is acknowledged in the permit application that such units or activities would cause the facility to exceed such threshold(s);
  - 3. Such unit or activity would not emit or have the potential to emit:
    - a. 500 pounds per year or more of lead and lead compounds expressed as lead;
    - b. 1,000 pounds per year or more of any hazardous air pollutant;
    - c. 2,500 pounds per year or more of total hazardous air pollutants; or
    - d. 5.0 tons per year or more of any other regulated pollutant.

[Rule 62-213.430(6), F.A.C.]

- 40. <u>Permit Duration</u>. Permits for sources subject to the Federal Acid Rain Program shall be issued for terms of five years, provided that the initial Acid Rain Part may be issued for a term less than five years where necessary to coordinate the term of such part with the term of a Title V permit to be issued to the source. Operation permits for Title V sources may not be extended as provided in Rule 62-4.080(3), F.A.C., if such extension will result in a permit term greater than five years. [Rule 62-213.440(1)(a), F.A.C.]
- 41. Monitoring Information. All records of monitoring information shall specify the date, place, and time of sampling or measurement and the operating conditions at the time of sampling or measurement, the date(s) analyses were performed, the company or entity that performed the analyses, the analytical techniques or methods used, and the results of such analyses.

  [Rule 62-213.440(1)(b)2.a., F.A.C.]

42. Retention of Records. Retention of records of all monitoring data and support information shall be for a period of at least 5 years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.

[Rule 62-213.440(1)(b)2.b., F.A.C.]

- 43. <u>Monitoring Reports</u>. The permittee shall submit reports of any required monitoring at least every six (6) months. All instances of deviations from permit requirements must be clearly identified in such reports. [Rule 62-213.440(1)(b)3.a., F.A.C.]
- 44. <u>Deviation from Permit Requirements Reports</u>. The permittee shall report in accordance with the requirements of Rules 62-210.700(6) and 62-4.130, F.A.C., deviations from permit requirements, including those attributable to upset conditions as defined in the permit. Reports shall include the probable cause of such deviations, and any corrective actions or preventive measures taken. [Rule 62-213.440(1)(b)3.b., F.A.C.]
- 45. Reports. All reports shall be accompanied by a certification by a responsible official, pursuant to Rule 62-213.420(4), F.A.C. [Rule 62-213.440(1)(b)3.c, F.A.C.]
- 46. If any portion of the final permit is invalidated, the remainder of the permit shall remain in effect. [Rule 62-213.440(1)(d)1., F.A.C.]
- 47. It shall not be a defense for a permittee in an enforcement action that maintaining compliance with any permit condition would necessitate halting of or reduction of the source activity.

  [Rule 62-213.440(1)(d)3., F.A.C.]
- 48. Any Title V source shall comply with all the terms and conditions of the existing permit until the Department has taken final action on any permit renewal or any requested permit revision, except as provided at Rule 62-213.412(2), F.A.C. [Rule 62-213.440(1)(d)4, F.A.C.]
- 49. A situation arising from sudden and unforeseeable events beyond the control of the source which causes an exceedance of a technology-based emissions limitation because of unavoidable increases in emissions attributable to the situation and which requires immediate corrective action to restore normal operation, shall be an affirmative defense to an enforcement action in accordance with the provisions and requirements of 40 CFR 70.6(g)(2) and (3), hereby adopted and incorporated by reference.

  [Rule 62-213.440(1)(d)5., F.A.C.]
- 50. Confidentiality Claims. Any permittee may claim confidentiality of any data or other information by complying with Rule 62-213.420(2), F.A.C. (also, see Condition No. 36.)
  [Rule 62-213.440(1)(d)6., F.A.C.]
- 51. Statement of Compliance. (a)2. The permittee shall submit a Statement of Compliance with all terms and conditions of the permit that includes all the provisions of 40 CFR 70.6(c)(5)(iii), incorporated by reference at Rule 62-204.800, F.A.C., using DEP Form No. 62-213.900(7). Such statement shall be accompanied by a certification in accordance with Rule 62-213.420(4), F.A.C., for Title V requirements and with Rule 62-214.350, F.A.C., for Acid Rain requirements. Such statements shall be submitted (postmarked) to the Department and EPA:
  - a. Annually, within 60 days after the end of each calendar year during which the Title V permit was effective, or more frequently if specified by Rule 62-213.440(2), F.A.C., or by any other applicable requirement; and
  - b. Within 60 days after submittal of a written agreement for transfer of responsibility as required pursuant to 40 CFR 70.7(d)(1)(iv), adopted and incorporated by reference at Rule 62-204.800, F.A.C., or within 60 days after permanent shutdown of a facility permitted under Chapter 62-213, F.A.C.; provided that, in either such case, the reporting period shall be the portion of the calendar year the permit was effective up to the date of transfer of responsibility or permanent facility shutdown, as applicable.
- 3. In lieu of individually identifying all applicable requirements and specifying times of compliance with, non-compliance with, and deviation from each, the responsible official may use DEP Form No. 62-213.900(7) as such statement of compliance so long as the responsible official identifies all reportable deviations from and all instances of non-compliance with any applicable requirements and includes all information required by the federal regulation relating to each reportable deviation and instance of non-compliance.

(b) The responsible official may treat compliance with all other applicable requirements as a surrogate for compliance with Rule 62-296.320(2), Objectionable Odor Prohibited.

[Rules 62-213.440(3)(a)2. & 3. and (b), F.A.C.]

- 52. Permit Shield. Except as provided in Chapter 62-213, F.A.C., compliance with the terms and conditions of a permit issued pursuant to Chapter 62-213, F.A.C., shall, as of the effective date of the permit, be deemed compliance with any applicable requirements in effect, provided that the source included such applicable requirements in the permit application. Nothing in Rule 62-213.460, F.A.C., or in any permit shall alter or affect the ability of EPA or the Department to deal with an emergency, the liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance, or the requirements of the Federal Acid Rain Program.

  [Rule 62-213.460, F.A.C.]
- 53. Forms and Instructions. The forms used by the Department in the Title V source operation program are adopted and incorporated by reference in Rule 62-213.900, F.A.C. The form is listed by rule number, which is also the form number, and with the subject, title, and effective date. Copies of forms may be obtained by writing to the Department of Environmental Protection, Division of Air Resource Management, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, or by contacting the appropriate permitting authority.
- (1) Major Air Pollution Source Annual Emissions Fee Form. (Effective 01/03/2001)
- (7) Statement of Compliance Form. (Effective 06/02/2002)
- (8) Responsible Official Notification Form. (Effective 06/02/2002)

[Rule 62-213.900, F.A.C.: Forms (1), (7) and (8)]

#### Chapter 62-256, F.A.C.

54. Not federally enforceable. Open Burning. This permit does not authorize any open burning nor does it constitute any waiver of the requirements of Chapter 62-256, F.A.C. Source shall comply with Chapter 62-256, F.A.C., for any open burning at the source. [Chapter 62-256, F.A.C.]

#### Chapter 62-281, F.A.C.

- 55. <u>Refrigerant Requirements</u>. Any facility having refrigeration equipment, including air conditioning equipment, which uses a Class I or II substance (listed at 40 CFR 82, Subpart A, Appendices A and B), and any facility which maintains, services, or repairs motor vehicles using a Class I or Class II substance as refrigerant must comply with all requirements of 40 CFR 82, Subparts B and F, and with Rule 62-281.100, F.A.C. Those requirements include the following restrictions:
- (1) Any facility having any refrigeration equipment normally containing 50 (fifty) pounds of refrigerant, or more, must keep servicing records documenting the date and type of all service and the quantity of any refrigerant added pursuant to 40 CFR 82.166;
- (2) No person repairing or servicing a motor vehicle may perform any service on a motor vehicle air conditioner (MVAC) involving the refrigerant for such air conditioner unless the person has been properly trained and certified as provided at 40 CFR 82.34 and 40 CFR 82.40, and properly uses equipment approved pursuant to 40 CFR 82.36 and 40 CFR 82.38, and complies with 40 CFR 82.42;
- (3) No person may sell or distribute, or offer for sale or distribution, any substance listed as a Class I or Class II substance at 40 CFR 82, Subpart A, Appendices A and B, except in compliance with Rule 62-281.100, F.A.C., and 40 CFR 82.34(b), 40 CFR 82.42, and/or 40 CFR 82.166;
- (4) No person maintaining, servicing, repairing, or disposing of appliances may knowingly vent or otherwise release into the atmosphere any Class I or Class II substance used as a refrigerant in such equipment and no other person may open appliances (except MVACs as defined at 40 CFR 82.152) for service, maintenance or repair unless the person has been properly trained and certified pursuant to 40 CFR 82.161 and unless the person uses equipment certified for that type of appliance pursuant to 40 CFR 82.158 and unless the person observes the practices set forth at 40 CFR 82.156 and 40 CFR 82.166;
- (5) No person may dispose of appliances (except small appliances, as defined at 40 CFR 82.152) without using equipment certified for that type of appliance pursuant to 40 CFR 82.158 and without observing the practices set forth at 40 CFR 82.156 and 40 CFR 82.166:
- (6) No person may recover refrigerant from small appliances, MVACs and MVAC-like appliances (as defined at 40 CFR 82.152), except in compliance with the requirements of 40 CFR 82, Subpart F.
- [40 CFR 82; and, Chapter 62-281, F.A.C. (Chapter 62-281, F.A.C., is not federally enforceable)]

#### Chapter 62-296, F.A.C.

- 56. <u>Industrial, Commercial, and Municipal Open Burning Prohibited</u>. Open burning in connection with industrial, commercial, or municipal operations is prohibited, except when:
  - (a) Open burning is determined by the Department to be the only feasible method of operation and is authorized by an air permit issued pursuant to Chapter 62-210 or 62-213, F.A.C.; or
  - (b) An emergency exists which requires immediate action to protect human health and safety; or
  - (c) A county or municipality would use a portable air curtain incinerator to burn yard trash generated by a hurricane, tornado, fire or other disaster and the air curtain incinerator would otherwise be operated in accordance with the permitting exemption criteria of Rule 62-210.300(3), F.A.C.

[Rule 62-296.320(3), F.A.C.]

#### 57. Unconfined Emissions of Particulate Matter.

(4)(c)1. No person shall cause, let, permit, suffer or allow the emissions of unconfined particulate matter from any activity, including vehicular movement; transportation of materials; construction; alteration; demolition or wrecking; or industrially related activities such as loading, unloading, storing or handling; without taking reasonable precautions to prevent such emissions.

- 3. Reasonable precautions include the following:
  - a. Paving and maintenance of roads, parking areas and yards.
  - b. Application of water or chemicals to control emissions from such activities as demolition of buildings, grading roads, construction, and land clearing.
  - Application of asphalt, water, oil, chemicals or other dust suppressants to unpaved roads, yards, open stock piles and similar activities.
  - d. Removal of particulate matter from roads and other paved areas under the control of the owner or operator of the facility to prevent reentrainment, and from buildings or work areas to prevent particulate from becoming airborne.
  - e. Landscaping or planting of vegetation.
  - f. Use of hoods, fans, filters, and similar equipment to contain, capture and/or vent particulate matter.
  - g. Confining abrasive blasting where possible.
  - h. Enclosure or covering of conveyor systems.
- 4. In determining what constitutes reasonable precautions for a particular facility, the Department shall consider the cost of the control technique or work practice, the environmental impacts of the technique or practice, and the degree of reduction of emissions expected from a particular technique or practice.

[Rules 62-296.320(4)(c)1., 3., & 4. F.A.C.]

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Attachment IC-FI-CV3
Compliance Report and Plan

## **ATTACHMENT IC-FI-CV3**

### **COMPLIANCE CERTIFICATION**

Compliance with the conditions set forth in this operation permit will be certified on an annual basis by the submittal of the Statement of Compliance – Title V Source DEP Form No. 62-213.900(7). The facility and emission units identified in this application are in compliance with the Applicable Regulations identified in the application form and attachments referenced in the section. The compliance report for this facility will be submitted by March 1 of each year for the prior calendar year. The compliance statement is as follows:

I, the undersigned, am the responsible official as defined in Chapter 62-210.200, F.A.C., of the Title V source for which this report is being submitted. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made and data contained in this report are true, accurate, and complete.

Signature, Responsible Official

7/3/07 Date

Julie Turner, Plant Manager and Authorized Representative

06/22/2007 073-89506

### **Attachment IC-FI-CV3**

## Combustion Turbine Peaking Unit CT3 Compliance Plan Intercession City Power Plant

Per Specific condition B.17 [reference in Rule 62-297.310] of the Florida Power Corporation dba Progress Energy Florida, Inc. ("PEF") Intercession City Power Plant Title V Permit No.0970014-009-AV, the annual visible emissions ("VE") compliance test is not required if burning gaseous fuels for less than 400 hours per year of liquid fuels. However per Specific Condition B.35, a VE compliance test is required once every five (5) years for any combustion turbine that operates less than 400 hours per year.

The Combustion Turbine Peaking Unit CT3 (Emissions Unit No. 3) has operated on distillate oil for a minimal amount of time since the last Title V renewal in 2002. Therefore, an annual VE compliance test has not been required.

PEF has completed the VE test for oil burning for all units, but an operational problem has prevented oil burning in unit CT3. PEF is unable to rectify the problem prior to the Title V Permit renewal application submittal deadline of July 5, 2007. Repair work has been scheduled to begin in late 2007 or early 2008.

Therefore, PEF will perform a VE test on this unit within 90 days of repairing the oil burning problem. The compliance authority will be notified of the planed test per the applicable notification requirements of at least 15 days.

Attachment IC-FI-CV4
List of Equipment/Activities Regulated - Title VI

## **ATTACHMENT IC-FI-CV4**

## List of Equipment/Activities Regulated - Title VI

The Florida Power Intercession City Facility currently has several refrigeration and air-conditioning units on the plant site. Of these, 2 air-conditioning units currently meet the 50-pound threshold established by the Department:

Model Name	Unit Number	Serial Number	General Area	Amount
TRA	A1	WCH240B400BA	New Administrative Office	60
TRA	A1	WCH240B400BA	New Administrative Office	60

Attachment IC-FI-CV6
Requested Changes to Current Title V Air Operation Permit

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## Section III. Emissions Unit(s) and Conditions.

### Subsection A. This section addresses the following emissions unit(s).

E. U. ID No.	Brief Description
-001 to -006	Combustion Turbine Peaking Units CTP 1, CTP 2, CTP 3, CTP 4, CTP 5, & CTP 6

The above referenced turbines may fire new No. 2 fuel oil having a maximum sulfur content of 0.5 percent, by weight. Each turbine has a maximum heat input of 708 MMBtu/hour and power a generator rated at 56.7 MW (megawatts of electricity). Emissions are not controlled and each turbine exhausts through a separate stack. These units are not subject to the following federal requirements, NSPS - 40 CFR 60, Subpart GG, Standards of Performance for Stationary Gas Turbines or Acid Rain. The above units began commercial service in 1974.

{Permitting Note: The emissions units are regulated under Rule 62-210.300, F.A.C., Permits Required.}

### The following specific conditions apply to the above referenced emissions units:

#### Essential Potential to Emit (PTE) Parameters

A.1. Permitted Capacity. The maximum heat input rate shall not exceed 708 MMBtu/hour/CT (HHV at 64° F) on a 24-hour rolling average basis while firing new No. 2 fuel oil.

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.]

[Permitting note: The heat input limitations have been placed in each permit to identify the capacity of each unit for the purposes of confirming that emissions testing is conducted within 90 to 100 percent of the unit's rated capacity (or to limit future operation to 110 percent of the test load), to establish appropriate emission limits and to aid in determining future rule applicability. Regular record keeping is not required for heat input. Instead, the owner or operator is expected to determine heat input whenever emission testing is required, to demonstrate at what percentage of the rated capacity that the unit was tested. Rule 62-297.310(5), F.A.C., included in the permit, requires measurement of the process variables for emission tests. Such heat input determination may be based on measurements of fuel consumption by various methods including but not limited to fuel flow metering or tank drop measurements, using the heat value of the fuel determined by the fuel vendor or the owner or operator, to calculate average hourly heat input during the test.}

- **A.2.** Emissions Unit Operating Rate Limitation After Testing. See specific condition A.13.
- A.3. Methods of Operation Fuels. Only new No. 2 fuel oil having a maximum sulfur content of 0.5 percent, by weight, shall be fired in the turbines.

  [Rules 62-4.160(2) and 62-213.440(1), F.A.C.; and, AO 49-176549.]

**Deleted:** at a maximum consumption rate of 123 bbls/hr/turbine.

## Section III. Emissions Unit(s) and Conditions.

#### Subsection B. This section addresses the following emissions unit.

E.U. ID No.	BRIEF DESCRIPTION	
-007 to -010	Combustion Turbine Units CT 7, CT 8, CT 9, & CT 10	
-011	Combustion Turbine CT 11	•

CTs. 7 through 10 are GE PG7111(EA) units and CT 11 is a Siemens V84.3 unit with generator ratings of 96.3 megawatts/CT and 171 megawatts/CT, respectively. The GE CT's and the Siemens CT have a maximum heat input rating while firing natural gas LHV at 59° Fahrenheit (F) of 1048 and 1477 MMBtu/hour, respectively on a 24-hour rolling average basis. NO<sub>x</sub> and SO<sub>2</sub> emissions are controlled with water injection and burning new No. 2 low sulfur fuel oil, respectively. The combustion turbines exhaust through individual stacks. The GE units began commercial service in August 1993 and the Siemens unit began commercial service in January 1997.

{Permitting note: CTs. 7 through 10 are regulated under Acid Rain, Phase II. All of the above CTs are regulated under; NSPS - 40 CFR 60, Subpart GG (Standards of Performance for Stationary Gas Turbines), which is adopted and incorporated by reference in Rule 62-204.800(7)(b), F.A.C.; a BACT determination (PSD-FL-180), dated August 17, 1992; and, Air Construction Permit No. 0970014-002-AC, issued May 17, 1999. For CTs 7 - 10: stack heights = 50 feet, exit diameters = 13.75, exit temperatures = 1,043 °F, and actual volumetric flow rates = 1,551,317 acfm. For CT 11: stack height = 75 feet, exit diameter = 19, exit temperature = 1,043 °F, and actual volumetric flow rates = 2,370,627 acfm.}

The following specific conditions apply to the emissions units listed above:

#### Essential Potential to Emit (PTE) Parameters

B.1. Permitted Capacity. The GE and Siemens turbines have generator nameplate ratings of 96.3 and 171 megawatts, respectively. The heat input to the GE and Siemens turbines while firing natural gas (LHV at 59° F) is 1048 and 1477 MMBtu/hr, respectively on a 24-hour rolling average basis. A maximum heat input while firing fuel oil of 1144 MMBtu/hr/GE CT (LHV) on a 24-hour rolling average basis at 20° F during peak loading and 2032 MMBtu/hr/Siemens CT at 20° F on a 24-hour rolling average basis during peak loading shall not be exceeded. The heat input will be corrected in accordance with specific condition B.28.

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; and, AC 49-203114/PSD-FL-180(A)]

**B.38.** For the purpose of reports required under 40 CFR 60.7(c), periods of excess emissions that shall be reported are determined through the use of a properly installed and maintained NOx CEMS, subject to the requirements of specific condition C.25 (Alternate Monitoring Plan).

a. Nitrogen exides. 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 the applicable requirements in 40 CFR

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60.332 by the performance test required in 40 CFR 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 40 CFR 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 40 CFR 60.335(a).

{Permitting Note: A properly installed and maintained NO<sub>X</sub> CEMS may be used as an acceptable alternative to measure periods of excess emissions.}

**B.41.** Alternate Standards and NO<sub>X</sub> CEMS Data Exclusion: The following permit conditions establish alternate standards or allow the exclusion of monitoring data for specifically defined periods of startup, shutdown, and documented malfunction of a gas turbine. These conditions apply only if operators employ the best operational practices to minimize the amount and duration of emissions during such episodes. For the following identified operational periods, 1-hour NO<sub>X</sub> emissions rate values may be excluded from the 24-hour block compliance averages in accordance with the corresponding requirements.

(1) Excess emissions resulting from startup, shutdown and 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 due to startup or shutdown in any 24 hour period for each startup and shutdown cycle. No more than 2 hourly emission rate values shall be excluded in a 24-hour period due to malfunction. The duration of excess emissions shall be minimized but in no case exceed these durations unless specifically authorized by the Department. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown, or malfunction shall be prohibited.

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(1) <u>Startup. Shutdown, and Malfunction</u>: No more than 1 hourly emission rate value due to startup shall be excluded per cycle. No more than 1 hourly emission rate value due to shutdown shall be excluded per cycle. No more than 2 hourly emission rate values shall be excluded in a 24 hour period due to malfunction. No more than 4 hourly emission rate values shall be excluded in a 24 hour period due to all startups, shutdowns, and malfunctions. Note: A fuel switch is not considered "startup".

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C.5. Permitted Capacity: Each combustion turbine shall operate only in simple-cycle mode and generate a nominal 91 MW of electrical power. Operation of each unit shall not exceed 905 MMBtu per hour of heat input from firing natural gas or 978 MMBtu per hour of heat input from firing low sulfur distillate oil (LHV, at 59° F) on a 24-hour rolling average basis. Excluding startup and shutdown, operation below 50% base load is prohibited. The maximum heat inputs are based on the lower heating value (LHV) of each fuel, an inlet air temperature of 59°F, a relative humidity of 60%, an ambient air

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pressure of 14.7 psi, and 100% of base load. Therefore, heat input rates will vary depending upon ambient conditions and the combustion turbine characteristics. Compliance shall be determined by data compiled from the Speedtronic TM Control System adjusted for these parameters. Manufacturer's performance curves, corrected for site conditions or equations for correction to other ambient conditions, shall have been provided to the Permitting and Compliance Authorities within 45 days of completing the initial compliance testing and shall be resubmitted at any time that they are changed as the result of new testing.

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; and, 0970014-006-AC].

C.18. Alternate Standards and NO<sub>X</sub> CEMS Data Exclusion: The following permit conditions establish alternate standards or allow the exclusion of monitoring data for specifically defined periods of startup, shutdown, and documented malfunction of a gas turbine. These conditions apply only if operators employ the best operational practices to minimize the amount and duration of emissions during such episodes.

(a) Opacity: During startup and shutdown, visible emissions excluding water vapor shall not exceed 20% opacity for up to 2.0 hours in any 24-hour period.

(b) NO<sub>X</sub> CEMS Data Exclusion: For the following identified operational periods, 1- hour NO<sub>X</sub> emissions rate values may be excluded from the 24-hour block compliance averages in accordance with the corresponding requirements.

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(1) Excess emissions resulting from startup, shutdown and 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 due to startup or shutdown in any 24 hour period for each startup and shutdown cycle. No more than 2 hourly emission rate values shall be excluded in a 24-hour period due to malfunction. The duration of excess emissions shall be minimized but in no case exceed these durations unless specifically authorized by the Department. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown, or malfunction shall be prohibited.

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(1) <u>Startup. Shutdown, and Malfunction</u>: No more than 1 hourly emission rate value due to startup shall be excluded per cycle. No more than 1 hourly emission rate value due to shutdown shall be excluded per cycle. No more than 2 hourly emission rate values shall be excluded in a 24 hour period due to malfunction. No more than 4 hourly emission rate values shall be excluded in a 24 hour period due to all startups, shutdowns, and malfunctions. Note: A fuel switch is not considered "startup".

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## III. EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Application - For Title V air operation permitting only, emissions units are classified as regulated, unregulated, or insignificant. If this is an application for Title V air operation permit, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each regulated and unregulated emissions unit addressed in this application for air permit. Some of the subsections comprising the Emissions Unit Information Section of the form are optional for unregulated emissions units. Each such subsection is appropriately marked. Insignificant emissions units are required to be listed at Section II, Subsection C.

Air Construction Permit or FESOP Application - For air construction permitting or federally enforceable state air operation permitting, emissions units are classified as either subject to air permitting or exempt from air permitting. The concept of an "unregulated emissions unit" does not apply. If this is an application for air construction permit or FESOP, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit subject to air permitting addressed in this application for air permit. Emissions units exempt from air permitting are required to be listed at Section II, Subsection C.

Air Construction Permit and Revised/Renewal Title V Air Operation Permit Application — Where this application is used to apply for both an air construction permit and a revised/renewal Title V air operation permit, each emissions unit is classified as either subject to air permitting or exempt from air permitting for air construction permitting purposes and as regulated, unregulated, or insignificant for Title V air operation permitting purposes. The air construction permitting classification must be used to complete the Emissions Unit Information Section of this application for air permit. A separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit subject to air permitting addressed in this application for air permit. Emissions units exempt from air construction permitting and insignificant emissions units are required to be listed at Section II, Subsection C.

If submitting the application form in hard copy, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application must be indicated in the space provided at the top of each page.

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## **EMISSIONS UNIT INFORMATION**

Section [1]

of [4]

## A. GENERAL EMISSIONS UNIT INFORMATION

## <u>Title V Air Operation Permit Emissions Unit Classification</u>

1.	1. Regulated or Unregulated Emissions Unit? (Check one, if applying for an initial, revised or renewal Title V air operation permit. Skip this item if applying for an air construction permit or FESOP only.)							
·	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.							
En	nissions Unit	Description and Sta	<u>itus</u>					
1.	Type of Emis	ssions Unit Addresse	d in this Section	: (Check one)				
	process o	ssions Unit Information of the control of the contr	activity, which	produces one or more	issions unit, a single e air pollutants and			
	group of	Emissions Unit Information process or production point (stack or vent)	n units and activ	rities which has at lea	st one definable			
	more pro	ssions Unit Informaticess or production ur	nits and activitie	s which produce fug				
2. Description of Emissions Unit Addressed in this Section: Combustion Turbine (CT) Peaking Units CTP 1, CTP 2, CTP 3, CTP 4, CTP 5, & CTP 6								
3.	Emissions U	nit Identification Nur	mber: 001, 002,	003, 004, 005 and 0	06.			
4.	Emissions Unit Status Code:	5. Commence Construction Date:	6. Initial Startup Date: 14 May 1974	7. Emissions Unit Major Group SIC Code: 49	8. Acid Rain Unit?  Yes  No			
9. Package Unit: Manufacturer: Pratt & Whitney Model Number: FT 4C-1DLF								
10.	10. Generator Nameplate Rating: 57 MW combined							
	its CTP1-CTP	nit Comment: 6 each consists of two	o gas turbines pe	er generator unit (See	attachment IC-EU1-			

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<b>Emissions</b>	Unit	<b>Control</b>	Eau	ipment
------------------	------	----------------	-----	--------

<u>E1</u>	missions One Control Equipment			
1.	Control Equipment/Method(s) Description: Emissions are not controlled.			

2. Control Device or Method Code(s):

## **EMISSIONS UNIT INFORMATION**

Section [1]

of [4]

## **B. EMISSIONS UNIT CAPACITY INFORMATION**

(Optional for unregulated emissions units.)

## **Emissions Unit Operating Capacity and Schedule**

1.	Maximum	Process or	Throughput Rate:
••	1,160,111116111	1 1000000 01	imoughput ituto.

2. Maximum Production Rate:

3. Maximum Heat Input Rate: 708 million Btu/hr each turbine

4. Maximum Incineration Rate: pounds/hr

tons/day

5. Requested Maximum Operating Schedule:

24 hours/day

7 days/week

52 weeks/year

16

8,760 hours/year/CT

6. Operating Capacity/Schedule Comment:

Generator Nameplate Rating 56.7 MW.

See Permit 0970014-009-AV Conditions III.A.1 and III.A.3.

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# C. EMISSION POINT (STACK/VENT) INFORMATION (Optional for unregulated emissions units.)

## **Emission Point Description and Type**

3. Descriptions of Emission Points Comprising this Emis			
Combustion turbine's gases exhaust through two stack	s.		
4. ID Numbers or Descriptions of Emission Units with the	is Emission Point in Common:		
<ul><li>5. Discharge Type Code:</li><li>V</li><li>6. Stack Height:</li><li>45 feet</li></ul>	7. Exit Diameter: 14.6 feet		
8. Exit Temperature: 9. Actual Volumetric Flow 1,764,000 acfm	w Rate: 10. Water Vapor: %		
11. Maximum Dry Standard Flow Rate: 12. Nons dscfm feet	12. Nonstack Emission Point Height: feet		
Zone: 17 East (km): 446.3 Latitu	14. Emission Point Latitude/Longitude Latitude (DD/MM/SS) Longitude (DD/MM/SS)		
15. Emission Point Comment:  Data for a single generating unit.			

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## EMISSIONS UNIT INFORMATION

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## D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 1

Segment Description (Process/Fuel Type):     Distillate fuel oil firing - Turbine						
2. Source Classification Code 2-01-001-01	e (SCC):	3. SCC Units:	Gallons Burned			
4. Maximum Hourly Rate: 5.12	5. Maximum 44,851	Annual Rate:	6. Estimated Annual Activity Factor:			
7. Maximum % Sulfur: 0.5	8. Maximum 6	% Ash:	9. Million Btu per SCC Unit: 138.4			
Max. Hourly Rate per CT base 138.4 MMBtu = 5.12 x 10 <sup>3</sup> gal/l Heat content based on HHV. D	Million BTU per SCC Unit: 138.4  Max. Hourly Rate per CT based on peak load max and heat input at 64°F = 708 MMBtu/hr / 138.4 MMBtu = 5.12 x 10³ gal/hr  Heat content based on HHV. Data for a single generating unit.  Maximum Annual rate based on 8,760 hr/yr					
Segment Description and Rate: Segment _ of _						
1. Segment Description (Process/Fuel Type):						
2. Source Classification Code (SCC):  3. SCC Units:						
4. Maximum Hourly Rate:	5. Maximum	Annual Rate:	6. Estimated Annual Activity Factor:			
7. Maximum % Sulfur:	8. Maximum % Ash:		9. Million Btu per SCC Unit:			
10. Segment Comment:						

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## D. SEGMENT (PROCESS/FUEL) INFORMATION (CONTINUED)

Segment Description and Rate: Segment \_ of \_

1. Segment Description (Process/Fuel Type):						
2. Source Classification Cod	e (SCC):	3. SCC Units:		. •		
4. Maximum Hourly Rate:	5. Maximum	Annual Rate:	6.	Estimated Annual Activity Factor:		
7. Maximum % Sulfur:	8. Maximum	% Ash:	9.	Million Btu per SCC Unit:		
10. Segment Comment:						
Segment Description and Ra	ate: Segment	of				
1. Segment Description (Pro	cess/Fuel Type):					
2. Source Classification Cod	le (SCC):	3. SCC Units:				
4. Maximum Hourly Rate:	5. Maximum	Annual Rate:	6.	Estimated Annual Activity		
				Factor:		
7. Maximum % Sulfur:	8. Maximum % Ash: 9. Million Btu per SCC Unit:					
10. Segment Comment:						
·						
		•				

## E. EMISSIONS UNIT POLLUTANTS

## List of Pollutants Emitted by Emissions Unit

			1".
1. Pollutant Emitted	2. Primary Control	3. Secondary Control	4. Pollutant
	Device Code	Device Code	Regulatory Code
SO <sub>2</sub>			NS
NO <sub>x</sub>			NS
PM			NS
PM <sub>10</sub>		·	NS
СО			NS
VOC			NS
		·	

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POLLUTANT DETAIL INFORMATION Page [1] of [1]

# F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions
Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted:	2. Total Perc	ent Efficiency of Control:
$SO_2$		
3. Potential Emissions:		4. Synthetically Limited?
363 lb/hour 9,540	) tons/year	☐ Yes 🕱 No
5. Range of Estimated Fugitive Emissions (as	applicable):	
to tons/year		
6. Emission Factor:	-	7. Emissions
		Method Code:
Reference:		
8.a. Baseline Actual Emissions (if required):	8.b. Baseline	24-month Period:
tons/year	From:	To:
9.a. Projected Actual Emissions (if required):	9.b. Projected	d Monitoring Period:
tons/year	☐ 5 years	☐ 10 years
10. Calculation of Emissions:		
Hourly Emissions = (708 MMBtu/hr) / (19,500 Bt lb/hr  Annual Emissions = (364 lb/hr) (1 ton/2,000lb) (8		
	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	<i>, – ),540</i> 11 1
Based on Rule 62-4.070, F.A.C.		
		_22222222222
11. Potential, Fugitive, and Actual Emissions C	omment:	
	•	

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# POLLUTANT DETAIL INFORMATION [1] of [1]

# F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions of						
Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:					
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year					
5. Method of Compliance:						
6. Allowable Emissions Comment (Description						
Allowable Emissions Allowable Emissions	_ of					
Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:					
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year					
Method of Compliance:      Allowable Emissions Comment (Description of Operating Method):						
Allowable Emissions Allowable Emissions						
Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:					
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year					
5. Method of Compliance:						
6. Allowable Emissions Comment (Description	on of Operating Method):					

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## G. VISIBLE EMISSIONS INFORMATION

Complete if this emissions unit is or would be subject to a unit-specific visible emissions limitation.

<u>Visible Emissions Limitation:</u> Visible Emissions Limitation <u>1</u> of <u>2</u>

1.	Visible Emissions Subtype: VE20	2. Basis for Allowable (x Rule	Opacity:  Other			
3.	Allowable Opacity: Normal Conditions:  20 % Ex Maximum Period of Excess Opacity Allower	cceptional Conditions:	% min/hour			
4.	Method of Compliance: Annual VE Test EPA Method 9					
5. Visible Emissions Comment: Annual emissions compliance testing for visible emissions is not required for these emissions units while burning only liquid fuels for less than 400 hours per year.  Visible emission - Rule 62-296.320(4)(b)1., F.A.C  Visible Emissions Testing - Rules 62-297.310(7)(a)4. and 8., F.A.C.  See Permit No. 0970014-009-AV Conditions III.A.5, III.A.15, and III.A.16.						
<u>Visible Emissions Limitation:</u> Visible Emissions Limitation 2 of 2						
1.	Visible Emissions Subtype: <b>VE99</b>	2. Basis for Allowable (x) Rule	Opacity:  Other			
3.	Allowable Opacity: Normal Conditions: % Ex Maximum Period of Excess Opacity Allower	I	100 % 60 min/hour			
4. Method of Compliance: Best Operational Practices						
5.	Visible Emissions Comment:					
FDEP Rule 62-210.700(1); Allowed for 2 hours (120 minutes) per 24 hours for start up, shutdown and malfunction.						
See Permit No. 0970014-009-AV Condition III.A.7.						

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## H. CONTINUOUS MONITOR INFORMATION

Complete if this emissions unit is or would be subject to continuous monitoring.

Continuous Monitoring System: Continuous Monitor \_\_\_ of \_\_\_ 1. Parameter Code: 2. Pollutant(s): 3. CMS Requirement: Other Rule 4. Monitor Information... Manufacturer: Model Number: Serial Number: 5. Installation Date: 6. Performance Specification Test Date: 7. Continuous Monitor Comment: Continuous Monitoring System: Continuous Monitor \_\_\_ 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:

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## H. CONTINUOUS MONITOR INFORMATION (CONTINUED)

Complete if this emissions unit is or would be subject to continuous monitoring.

<u>Continuous Monitoring System:</u> Continuous Monitor \_\_\_ 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 Da	ate:
7.	Continuous Monitor Comment:			
	·			
Continuous Monitoring System: Continuous Monitor of				
1.	Parameter Code:		2. Pollutant(s):	
3.	CMS Requirement:		Rule	
4.	Monitor Information Manufacturer:			
	Model Number:		Serial Number:	
5.	Installation Date:		6. Performance Specification Tes	t Date:
7.	Continuous Monitor Comment:			

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## EMISSIONS UNIT INFORMATION

Section [1]

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#### I. EMISSIONS UNIT ADDITIONAL INFORMATION

### Additional Requirements for All Applications, Except as Otherwise Stated

1.	Process Flow Diagram (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)            x         Attached, Document ID:         IC-EU1-I1         Previously Submitted, Date
2.	Fuel Analysis or Specification (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)  X Attached, Document ID: IC-EU1-I2 Previously Submitted, Date
3.	Detailed Description of Control Equipment (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)  Attached, Document ID: N/A Previously Submitted, Date
4.	Procedures for Startup and Shutdown (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)  X Attached, Document ID: IC-EU1-I3 Previously Submitted, Date  Not Applicable (construction application)
5.	Operation and Maintenance Plan (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)  Attached, Document ID: Previously Submitted, Date  X Not Applicable
6.	Compliance Demonstration Reports/Records  X Attached, Document ID: IC-EU1-I6 (CTs 1-6, but not 3), CT3- IC-FI-CV3  Test Date(s)/Pollutant(s) Tested: (02/07) - Opacity, SO <sub>2</sub> , (%Sulfur)  Previously Submitted, Date:  Test Date(s)/Pollutant(s) Tested:
	To be Submitted, Date (if known):  Test Date(s)/Pollutant(s) Tested:  Not Applicable
	Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.
7.	Other Information Required by Rule or Statute  Attached, Document ID: X Not Applicable

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## **EMISSIONS UNIT INFORMATION**

Section [1]

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1. Control Technology Review and Analysis (Rules 62-212.400(10) and 62-212.500(7),
F.A.C.; 40 CFR 63.43(d) and (e))
Attached, Document ID: Not Applicable
2. Good Engineering Practice Stack Height Analysis (Rule 62-212.400(4)(d), F.A.C., and
Rule 62-212.500(4)(f), F.A.C.)
Attached, Document ID: Not Applicable
3. Description of Stack Sampling Facilities (Required for proposed new stack sampling
facilities only)
Attached, Document ID: Not Applicable
Additional Requirements for Title V Air Operation Permit Applications
1. Identification of Applicable Requirements
X Attached, Document ID: IC-EU1-IV1
2. Compliance Assurance Monitoring
Attached, Document ID: Not Applicable
3. Alternative Methods of Operation
X Attached, Document ID: IC-EU1-IV3 Not Applicable
4. Alternative Modes of Operation (Emissions Trading)
Attached, Document ID: Not Applicable
5. Acid Rain Part Application
Certificate of Representation (EPA Form No. 7610-1)
Copy Attached, Document ID:
Acid Rain Part (Form No. 62-210.900(1)(a))
Attached, Document ID: Previously Submitted, Date:
Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)
Attached, Document ID: Previously Submitted, Date:
New Unit Exemption (Form No. 62-210.900(1)(a)2.)
Attached, Document ID: Previously Submitted, Date: Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)
Attached, Document ID: Previously Submitted, Date: Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.)
Attached, Document ID: Previously Submitted, Date:
Phase II NOx Averaging Plan (Form No. 62-210.900(1)(a)5.)
Attached, Document ID: Previously Submitted, Date:
x Not Applicable
Additional Requirements Comment
Additional Acquirements Comment

27DEP Form No. 62-210.900(1) - Form

Effective: 2/2/06 27

Attachment IC-EU1-I1 Process Flow Diagram

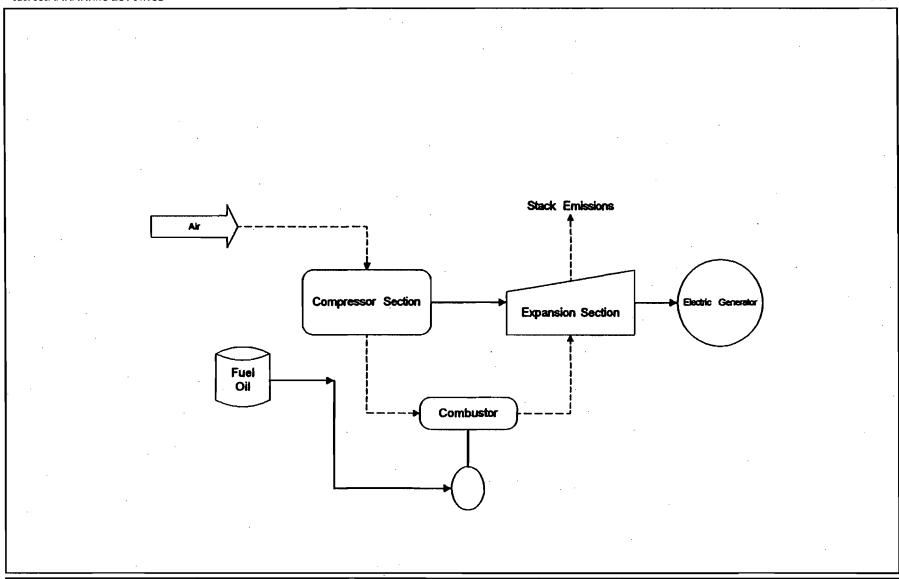


Figure IC-EU1-I1. Process Flow Diagram Emission Units 1,2,3,4,5, and 6 Florida Power - Intercession City

Source: Golder Associates Inc., 2007.

Process Flow Legend
Solid/Liquid
Gas
Steam



Attachment IC-EU1-I2
Fuel Analysis
Fuel Oil

#### **ATTACHMENT IC-EU1-I2** Fuel Analysis or Specification Emission Unit 1 - No.2 Fuel Oil

The values listed are "typical" values based upon 1) information gathered by laboratory analysis, and 2) FPC's fuel purchasing specifications. However, analytical results from grab samples of fuel taken at any given point in time may vary from those listed.

Parameter	Typical Value	Max. Value
API gravity @ 60°F	301	
Relative density	7.1 lb/gal <sup>2</sup>	
Heat content	19,500 Btu/lb (HHV)	
% sulfur		0.5
% nitrogen	0.025-0.03	
% ash	negligible	0.1

Notes:

The Data taken from the FPC fuel procurement specification

Data from laboratory analysis

Attachment IC-EU1-I3
Procedures For Startup/Shutdown

7/3/2007

# ATTACHMENT IC-EU1-I3 Procedures for Startup/Shutdown – Emission Unit 1

Startup and shutdown for these units are fully automatic.

Startup for the combustion turbine begins with "lighting off" of the machines on distillate oil.

Corrective actions may include switching the unit from automatic (remote) to local control. Best Operating Practices are adhered to and all efforts to minimize both the level and duration of excess emissions are undertaken.

Shutdown is performed by reducing the unit load (electrical production) to a minimal level, opening the breaker (which disconnects the unit from the system electrical grid), shutting off the fuel and coasting down to stop.

Attachment IC-EU1-I6
Compliance Demonstration

## Air Emissions Compliance Test Report

Progress Energy Intercession City Facility Units 1, 2, 4, 5, 6, 12, 13 and 14 Intercession City, Florida

C.E.M. Solutions Project No. 2851

Testing Completed: February 2007

Client Purchase Order Number: TBD C.E.M. Solutions, Inc Report Number: 20-2851-001

C.E.M. Solutions, Inc. 7990 W. Gulf to Lake Hwy. Crystal River, Florida 34429 Phone: 352-564-0441

## Plant's Authorization and Validity Statement

I hereby certify that to the best of my knowledge, all applicable field procedures and calculations comply with Florida Department of Environmental Protection requirements, and all test data and plant operating data are true and correct.

Julie Turner

Plant/Manager

Date

## Statement of Validity

I hereby certify the information and data provided in this emissions test report for tests performed on Units 1, 2, 4, 5, 6, 12, 13 and 14 at Progress Energy's Intercession City Facility, conducted on February 27, 28 and March 2, 2007, are complete and accurate to the best of my knowledge.

Mr Jeremy A. Johnson

President

C.E.M. Solutions, Inc.

## Project Background

Name of Source Owner:

Progress Energy

Address of Owner:

One Power Plaza

100 Central Ave.

St. Petersburg, Florida 33701

Source Identification:

Oris Code: 8049

Facility ID: 0970014

Emissions Unit:-001, -002, -004, -005, -006, -018, -019, -20

Location of Source:

Osceola County, Florida

Type of Operation:

SIC Code: 4911

Tests Performed:

Method 1 - Traverse Points

Method 3A - Determination of Oxygen and Carbon Dioxide

Method 7E - Determination of Nitrogen Oxides Method 9 - Visual Determination of Opacity Method 10 - Determination of Carbon Monoxide

Method 19 - Determination of Nitrogen Oxide Emissions Rates

ASTM D-240 - Fuel Analysis (by others)

ASTM D-1552 - Sulfur in Petroleum Products (by others)

Test Supervisor:

Mr. Jeremy A. Johnson

Date(s) Tests Conducted:

February 27, 2007: VE P1, 4 and 6, Gas Compliance, Units 12

and 14

February 28, 2007: Gas Compliance P13

March 2, 2007: VE P2 and P5

Site Test Coordinator:

Mr. Dennis Scott

State Regulatory Observers:

No observers present

# C.E.M. Solutions, Inc Test Personnel

Project Field Manager: Mr. Jeremy A. Johnson

Test Technicians: Mr. Charles Horton

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#### 1.0 Introduction

Progress Energy, Florida (PEF) retained C.E.M. Solutions, Inc. to perform source emissions testing on Units 1, 2, 4, 5, 6, 12, 13 and 14 stationary combustion turbines (CT) located at its facility in Intercession City, Florida.

The test program was conducted in order to evaluate the compliance status of Units 1, 2, 4, 5, 6, 12, 13 and 14's exhaust, while firing No. 2 distillate fuel oil in respect to the United States Environmental Protection Agency (USEPA) Standards of Performance for Stationary Turbines (Title 40 of the Code of Federal Regulations, Part 60, Subpart GG) and the Florida Department of Environmental Protection's (FDEP's) permit number 0970014-009-AV. The test program and results are presented and discussed in this report.

Dennis Scott of Progress coordinated plant operations throughout the test program. All testing was conducted in accordance with test methods promulgated by the USEPA.

Units 1, 2, 4, 5, 6, 12, 13 and 14 of the Intercession City Facility were found to be in compliance with permit number 0970014-009-AV. Table 1 summarizes the results of the compliance tests.

C.E.M. Solutions, Inc. Report

Last Updated: 3/20/2007

20-2851-001

# Table 1: Compliance Test Summary Progress Energy Intercession City Facility

Units 1, 2, 4, 5, 6, 12, 13 and 14

Units 1, 2, 4, 5, 6, 12, 13 and 14					
Pollutant	Unit	EmissionTimit	Measured Value	Pass/Fail	
Visual Emission	1A, 1B	<20 percent	A: 14.0 B: 15.9	PASS	
Visual Emission	2A, 2B	<20 percent	2A: 13.8 2B: 13.1	PASS	
Visual Emission	4A,4B	<20 percent	4A: 5.4 4B: 5.0	PASS	
Visual Emission	5A,5B	· <20 percent	5A: 0.0 5B: 0.0	PASS	
Visual Emission	6A, 6B	<20 percent	6A: 0.0 6B: 0.0	PASS	
NOx	12	42 ppmvd @ 15% O <sub>2</sub> 169.0 lbs/hr	30.3 ppmvd @ 15% O <sub>2</sub> 98.5 lbs/hr	PASS	
SO <sub>2</sub>	12	0.05 % sulfur by weight	0.04	PASS	
СО	12	20.0 ppmvd 44.0 lbs/hr	0.2 ppmvd@ 15% O <sub>2</sub> 0.0 lbs/hr	PASS	
Visual Emission	12	≤10%	0.0%	PASS	
NO <sub>x</sub>	13	42 ppmvd @ 15% O <sub>2</sub> 169.0 lbs/hr	37.9 ppmvd@ 15% O <sub>2</sub> 125.6 lbs/hr	PASS	
SO <sub>2</sub>	13	0.05 % sulfur by weight	0.04	PASS	
СО	13	20.0 ppmvd @ 15% O <sub>2</sub> 44.0 lbs/hr	1.3 ppmvd @ 15% O <sub>2</sub> 2.6 lbs/hr	PASS	
Visual Emission	13	≤10%	0.0%	PASS	
NOx	14	42 ppmvd @ 15% O <sub>2</sub> 169.0 lbs/hr	37.2 ppmvd @ 15% O <sub>2</sub> 126.0 lbs/hr	PASS	
SO <sub>2</sub>	14	0.05 % sulfur by weight	0.04	PASS	
СО	14	20.0 ppmvd @ 15% O <sub>2</sub> 44.0 lbs/hr	0.2 ppmvd @ 15% O <sub>2</sub> 0.0 lbs/hr	PASS	
Visual Emission	14	≤10%	0.0%	PASS	

## 2.0 Facility Description

Intercession City Units 1-6 are combustion turbine peaking units with a power generator rated at 56.7 MW while fired on new No. 2 fuel oil. Emissions are not controlled from each turbine.

The Intercession City Units P12 through P14 are General Electric Model 7EA gas turbines each with a nominal generation capacity of 91 MW while firing natural gas or distillate oil.

## 2.1 Process Equipment

Units 1-6 each have a maximum heat input rating that shall not exceed 708 mmBtu/hr. Each unit consists of two turbines exhausting through dedicated stacks (two exhaust stacks per unit).

Units 12, 13 and 14 each have a maximum heat input rating that shall not exceed 978 mmBtu/hr when firing No. 2 distillate fuel oil. Calculations are based on the lower heating value (LHV) of each fuel to each Unit.

Control measures and equipment on Units 12, 13 and 14 consists of water injection for emissions control. Emissions are exhausted through separate 56 ft. stacks, each having inner dimensions of 8.7 ft. by 16.1 ft.

## 2.2 Regulatory Requirements

PEF is required to conduct emissions tests prior to permit renewal for the following pollutants while operating at 90-100 percent of the heat input curve. Emission testing was conducted to determine the compliance status of the following pollutants:

- NOx ppmvd @ 15% O2 and lbs/hr
- SO<sub>2</sub> in % S by volume
- CO in ppmvd @15% O2 and lbs/hr
- Opacity in percent
- H<sub>2</sub>SO<sub>4</sub> demonstrated by sulfur analysis

Table 2 and 3 summarizes the applicable emissions and CEMS accuracy limits for Units 1, 2, 4, 5, 6, 12, 13 and 14.

Table 2: Summary of Emission Limits for Units 1-6
Progress Energy
Intercession City Facility

- Pollutant	Control Technology	Emission Limit	Permit Condition
SO <sub>2</sub>	Low Sulfur Fuels	0.5% S by weight for oil	A.6.
Visual Emission	Good Combustion	≤20% for oil	A.5.

Table 3: Summary of Emission Limits for Units 12 through 14 Progress Energy

**Intercession City Facility** 

1110110001011 011) 1 1111111)					
Pollutant	Control Technology	Emission Limit	Permit Condition		
NO <sub>X</sub>	Water Injection	42 ppmvd @ 15% O <sub>2</sub> 169.0 lbs/hr	C.12.(b)		
SO <sub>2</sub> and H <sub>2</sub> SO <sub>4</sub>	Low Sulfur Fuels	0.05 % S by weight for oil	C.13.(b)		
CO	Good Combustion	20 ppmvd @ 15% O <sub>2</sub> and 44.0 lbs/hr for gas	C.11.(b)		
Visual Emission	Good Combustion	≤10% for oil	C.16		

May 4, 2007

Ms. Wanda Parker-Garvin
Central District
Department of Environmental Protection
3319 Maguire Blvd., Suite. 232
Orlando, Florida 32803

Re: Visible Emissions (VE) Testing

Intercession City Peaking Units P1 through P6 Title V Air Operation Permit No. 0970014-009-AV

Facility ID No. 0970014

E.U. ID Nos. -001, -002, 003, 004, 005, and 006

Dear Ms. Parker-Gavin

On April 12, 2007 Progress Energy issued an emission test report for the peaking units at Intercession City (Report Number 20-281-001). The report included visual emission testing for Units P1 through P6. Inadvertently, the wrong heat input curve was used for calculating the maximum heat input. The attached page shows the corrected maximum heat input and percent of maximum heat input.

If you have any questions, please feel free to contact Dave Meyer at (727) 820-5295.

I hereby certify that, based on the information and belief formed after reasonable inquiry, the statements and information in the attached documents are true, accurate and complete.

Sincerely,

Julie Turner Plant Manager

Enclosure

## 3.0 Test Program/Operating Conditions

Emissions tests were completed at the Intercession City Facility to determine the compliance status of Units 1, 2, 4, 5, 6, 12, 13 and 14 on February 27, 2007 (Units 1, 4, 6, 12 and 14), February 28, 2007 (Unit 13) and on March 2, 2007 (Units 2 and 5).

NOX, CO, and Opacity testing were performed on Units 12, 13 and 14 at base load while firing fuel oil.

SO<sub>2</sub> emissions were calculated from fuel analysis and fuel flow rates while the units were operating at base load.

Turbine operating data was collected and provided by facility personnel during the entire test program. Data provided include, but was not limited to:

- Unit Generation (MW)
- Combustor inlet air temperature
- Fuel flow rate

Table 4 presents the percentage of the maximum heat input, for each Unit, during each test.

Table 4: Heat Input During Test
Progress Energy
Intercession City Facility
Units 1, 2, 4, 5, 6, 12, 13 and 14

01110 1/2/10/0/ 12/10 min 12					
	Calculated	Maximum			
		Heat Input		Percent	
Unit/Fuel	mmBtu/hr	mmBtu/hr	· °F	Max H.I.	
1, oil	634.7	655	80	96.9	
2, oil	580.7	635	<sup>.</sup> 86	91.5	
4, oil	661.3	650	82	101.7	
5, oil	610.1	635	86	96.1	
6, oil	627.9	650	81	96.6	
12, oil	837	930	76.6	90.0	
13, oil	855	938	72.5	91.1	
14, oil	871	907	82.2	96.0	

CT operating data and heat input curve can be viewed in Appendix A.

#### 4.0 Test Methods

All testing was performed in accordance with methods approved by the USEPA and FDEP. The following discusses the methods, as well as quality assurance and sample handling procedures.

## 4.1 Instrument Analyzer Procedures

NOx and CO reference method (RM) data were determined using instrument analyzer procedures. In addition, diluent gas concentrations of oxygen  $(O_2)$  and carbon dioxide  $(CO_2)$  were also measured via instrumental methods.  $O_2$  data was used to calculate NOx and CO lbs/mmBtu.

Mathematical equations used to determine calculated emissions standards are located in Appendix B.

Table 5 summarizes the EPA methods and instrumentation:

Table 5: Summary of EPA Instrument Reference Methods
Progress Energy
Intercession City Facility
Units 12, 13 and 14

Pollutant	EPA Method	Instrument	Serial Number	
Unit 12, NO <sub>X</sub>	7E	TEI Model 42CHL	42CHL-74122-375	
Unit 12, O <sub>2</sub>	3A	Servomex 1440	1420D/3379	
Unit 12, CO <sub>2</sub>	3A	Servomex 1440	1415D/3379	
Unit 12, CO	10	TEI Model 48C	48C-74094-375	
Unit 13, NO <sub>X</sub>	7E	TEI Model 42CHL	42CHL-74122-375	
Unit 13, O <sub>2</sub>	3A	Servomex 1440	1420D/3379	
Unit 13, CO <sub>2</sub>	3A	Servomex 1440	1415D/3379	
Unit 13, CO	10	TEI Model 48C	48C-74094-375	
Unit 14, NO <sub>X</sub>	7E	TEI Model 42CHL	42CHL-74122-375	
Unit 14, O <sub>2</sub>	3A	Servomex 1440	1420D/3379	
Unit 14, CO <sub>2</sub>	3A	Servomex 1440	1415D/3379	
Unit 14, CO	10	TEI Model 48C	48C-74094-375	

All reference method analyzers used meet or exceed applicable performance specifications detailed in the appropriate method.

Gas samples were continuously extracted from the stack by a gas sample probe. Samples were then transported to a gas sample conditioner via a heated sample

Last Updated: 3/20/2007

line operating at 250°F or above. The gas sample conditioner lowers the dew point of the sample gas to approximately 5°C through minimum interference heat exchangers. The dry, cool sample is then sent to the gas analyzers, located in the environmentally controlled test trailer for analysis by the reference method analyzers.

Instrument outputs were recorded continuously with a Windows compatible personal computer, compiled into 15 second averages, and stored in a database for future reference.

Instrument ranges and calibration gases were chosen in accordance with each pollutant's applicable EPA method. Instrument ranges and calibration gases used are shown in Table 6:

Table 6: Reference Method Instrument Ranges and Calibration Gases
Progress Energy
Intercession City Facility
Units 12, 13 and 14

Office 12, 10 and 14				
Pollutant	Test Location	Instrument Span	Calibration Gases	
NOx	Units 12, 13 and 14	100.0 ppm	0.0 ppm NO 45.8 ppm NO 82.6 ppm NO	
СО	Units 12, 13 and 14	50.0 ppm	0.0 ppm CO 27.2 ppm CO 46.1 ppm CO	
CO <sub>2</sub>	Units 12, 13 and 14	20 %	0.0 % CO <sub>2</sub> 9.88 % CO <sub>2</sub> 17.80 % CO <sub>2</sub>	
O <sub>2</sub>	Units 12, 13 and 14	25 %	0.0 % O <sub>2</sub> 12.50 % O <sub>2</sub> 20.90 % O <sub>2</sub>	

<sup>&</sup>lt;sup>a</sup> Concentrations of NO, CO, CO<sub>2</sub>, and O<sub>2</sub> are in a balance of purified nitrogen ( $N_2$ ). All analyzers were zeroed with ultra high purity  $N_2$ . All calibration gases have been certified to NIST traceable standards.

Calibration gas Certificates of Analysis can be found in Appendix C.

## 4.1.1 Sampling Location/Traverse Points/Test Run Duration

Unit 12, 13 and 14's exhaust stack depth, at the sample location, is 8.7 feet (104"). The emissions sampling location is 15 feet downstream from the nearest flow disturbance, and 10 feet upstream from the stack exhaust. A diagram of the sample location can be viewed in Appendix D.

#### 4.1.1.1 Stratification Test

A gaseous stratification test was completed during a prior year's annual compliance test. It was conducted in accordance with 40CFR, Part 75, Appendix A, Section 6.5.6.1.

Traverse test results are located in Appendix E.

#### 4.1.1.2 Reference Measurement Point

A single reference method measurement point was used during the test program, located no less than 1.0 meter from the stack wall along one of the measurement lines used in the stratification test in accordance with 40CFR, Part 75, Appendix A, Section 6.5.6(b)(4).

#### 4.1.1.3 Test Run Durations

Units 12, 13 and 14 oil compliance test, samples were taken from a single reference method measurement point for a duration of 60 minutes.

## 4.1.2 Quality Assurance/Quality Control Procedures

All sampling, analytical, and Quality Assurance/Quality Control (QA/QC) procedures outlined in the EPA methods were followed. All test equipment was calibrated before or during use in the field. Interference checks, response time checks, and NO<sub>2</sub> to NO converter checks were performed on each instrumental analyzer, as applicable, before field use. In the field, each analyzer and the entire instrument measurement system was checked for system bias before and following each test run using the calibration gases listed in Table 6.

Appendix E contains the QA/QC checks.

## 4.2 Determination of Opacity

USEPA Method 9 was utilized to determine opacity emissions.

Opacity observations were performed by a FDEP certified visual emissions reader. Readings were taken at 15 second intervals and reduced into six minute averages as required by the applicable EPA standard. One-sixty minute opacity run was performed as required in permit condition E.34 (a) 2 while the unit was operating at maximum capacity.

#### 4.3 Fuel Analysis

Sulfur limit of fuel oil is demonstrated by Laboratory Services analysis report containing the sulfur content of the fuel being burned. The method for determining the sulfur content of fuel oil is ASTM D-1552.

C.E.M. Solutions, Inc. Report

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20-2851-001

#### 5.0 Test Results

The test program results are summarized in Table 1 and are discussed below. Summaries of the compliance test results for NO<sub>X</sub>, CO, and SO<sub>2</sub>, Supporting RM field data, fuel analysis reports, and calculated values are presented in Appendix F through H.

#### 5.1 Units 1, 2, 4, 5 and 6

#### 5.1.1 Visual Emissions (VE)

The highest opacity emissions observed in any six-minute average on Unit 1A and 1B during the one hour test run was 14.0% and 15.9%, respectively, passing the 20% emission limitation.

The highest opacity emissions observed in any six-minute average on Unit 2A and 2B during the one hour test run was 13.8% and 13.1%, respectively, passing the 20% emission limitation.

The highest opacity emissions observed in any six-minute average on Unit 4A and 4B during the one hour test run was 5.4% and 5.0%, respectively, passing the 20% emission limitation.

The highest opacity emissions observed in any six-minute average on Unit 5A and 5B during the one hour test run was 0.0% and 0.0%, respectively, passing the 20% emission limitation.

The highest opacity emissions observed in any six-minute average on Unit 6A and 6B during the one hour test run was 0.0% and 0.0%, respectively, passing the 20% emission limitation.

#### 5.1.2 Sulfur Content

The sulfur content of the oil burned during the Units 1, 2, 4, 5 and 6 compliance tests was 0.12 % of the fuel by weight, below the 0.2% maximum limitation.

#### 5.2 Unit 12

#### 5.2.1 Nitrogen Oxides $(NO_X)$

During the Unit 12 gas test,  $NO_X$  emissions for the three test runs averaged 30.3 ppmvd @ 15%  $O_2$ , passing the 42 ppmvd @ 15%  $O_2$  limitation. Unit 12  $NO_X$  mass emissions averaged 98.5 lbs/hr over the three test runs, passing the 169.0 lbs/hr emission limitation.

#### 5.2.2 Carbon Monoxide (CO)

During the Unit 12 gas test, CO emissions for the three test runs averaged 0.2 ppmvd @ 15%  $O_2$ , passing the 20 ppmvd @ 15%  $O_2$  limitation. Unit 12 CO mass emissions averaged 0.0 lbs/hr over the three test runs, passing the 44.0 lbs/hr emission limitation.

#### 5.2.3 Visual Emissions

The highest opacity emissions observed in any six-minute average on Unit 12 during the one hour test run was 0.0%, passing the 10% emission limitation.

#### 5.2.4 Sulfur Dioxide (SO<sub>2</sub>)

The sulfur content of the oil burned during the Unit 12 compliance test was 0.04 % by weight, below the 0.05 % by weight limitation.

#### 5.2.5 Sulfuric Acid Mist (H<sub>2</sub>SO<sub>4</sub>)

The sulfur content of the oil burned during the Unit 12 compliance test was 0.04 % by weight, below the 0.05 % by weight limitation.

#### 5.3 Unit 13

#### 5.3.1 Nitrogen Oxides (NO<sub>X</sub>)

During the Unit 13 gas test,  $NO_X$  emissions for the three test runs averaged 37.9 ppmvd @ 15%  $O_2$ , passing the 42 ppmvd @ 15%  $O_2$  limitation. Unit 13  $NO_X$  mass emissions averaged 125.6 lbs/hr over the three test runs, passing the 169.0 lbs/hr emission limitation.

#### 5.3.2 Carbon Monoxide (CO)

During the Unit 13 gas compliance test, CO emissions for the three test runs averaged 1.3 ppmvd @ 15% O<sub>2</sub>, passing the 20 ppmvd @ 15% O<sub>2</sub> limitation. Units 13 CO mass emissions averaged 2.6 lbs/hr over the three test runs, passing the 44.0 lbs/hr emission limitation.

#### 5.3.3 Visual Emissions

The highest opacity emissions observed in any six-minute average on Unit 13 during the one hour test run was 0.0%, passing the 10% emission limitation.

#### 5.3.4 Sulfur Dioxide (SO<sub>2</sub>)

The sulfur content of the oil burned during the Unit 13 compliance test was 0.04 % by weight, below the 0.05 % by weight limitation.

#### 5.3.5 Sulfuric Acid Mist (H<sub>2</sub>SO<sub>4</sub>)

The sulfur content of the oil burned during the Unit 13 compliance test was 0.04 % by weight, below the 0.05 % by weight limitation.

#### 5.4 Unit 14

#### 5.4.1 Nitrogen Oxides (NO<sub>X</sub>)

During the Unit 14 gas test, NO<sub>X</sub> emissions for the three test runs averaged 37.2 ppmvd @ 15% O<sub>2</sub>, passing the 42 ppmvd @ 15% O<sub>2</sub> limitation. Unit 14 NO<sub>X</sub> mass emissions averaged 126.0 lbs/hr over the three test runs, passing the 169.0 lbs/hr emission limitation.

#### 5.4.2 Carbon Monoxide (CO)

During the Unit 14 gas test, CO emissions for the three test runs averaged 0.2 ppmvd @ 15% O<sub>2</sub>, passing the 20 ppmvd @ 15% O<sub>2</sub> limitation. Unit 14 CO mass emissions averaged 0.0 lbs/hr over the three test runs, passing the 44.0 lbs/hr emission limitation.

#### 5.4.3 Visual Emissions

The highest opacity emissions observed in any six-minute average on Unit 14 during the one hour test run was 0.0%, passing the 10% emission limitation.

PEF, Intercession City Compliance Test February and March 2007 Page 13 of 14

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#### 5.4.4 Sulfur Dioxide (SO<sub>2</sub>)

The sulfur content of the oil burned during the Unit 14 compliance test was 0.04 % by weight, below the 0.05 % by weight limitation.

#### 5.4.5 Sulfuric Acid Mist (H<sub>2</sub>SO<sub>4</sub>)

The sulfur content of the oil burned during the Unit 14 compliance test was 0.04 % by weight, below the 0.05 % by weight limitation.

Attachment IC-EU1-IV1 Identification of Applicable Requirements

#### **NOTICE OF FINAL PERMIT**

In the Matter of an Application for Permit by:

Mr. Kris Edmondson Plant Manager Progress Energy Florida, Inc 100 Central Avenue, MAC – IC44 St. Petersburg, Florida 33733-4042/ Osceola County
FINAL Permit Project No.: 0970014-009-AV
Intercession City Power Plant
Progress Energy Florida
Facility ID No. 0970014

Enclosed is FINAL Title V Permit Revision Number 0970014-009-AV for the Intercession City Power Plant Station located at 6525 Osceola Polk County Line Road, Intercession City, Osceola County, Florida, issued pursuant to Chapter 403, Florida Statutes (F.S.).

An electronic version of this permit has been posted on the Division of Air Resource Management's world wide web site for the United States Environmental Protection Agency (U.S. EPA) Region 4 office's review. The web site address is:

"http://www.dep.state.fl.us/air/permitting/airpermits/AirSearch\_ltd.asp"

Any party to this order (permit) has the right to seek judicial review of the permit pursuant to Section 120.68, F.S., by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appealate Procedure, with the Clerk of the Department in the Legal Office, 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 of Appeal must be filed within 30 (thirty) days from the date this Notice is filed with the Clerk of the permitting authority.

Executed in Tallahassee, Florida.

Trina Vielhauer, Chief Bureau of Air Regulation FINAL Permit Revision No. 0970014-009-AV Intercession City Power Plant Page 2 of 3

#### **CERTIFICATE OF SERVICE**

The undersigned duly designated deputy agency clerk hereby		
FINAL PERMIT REVISION (including the FINAL permit revision) we copies were mailed by U.S. Mail before the close of business on	as se	at by certified mail (*) and
copies were mailed by U.S. Mail before the close of business on	8	to the person(s) listed
or as otherwise noted:		

Mr. Kris Edmondson, Progress Energy Florida \*

E-mail Copy furnished to:

Mr. Dave Meyer, Progress Energy Florida

Mr. Scott Osbourn, P.E., Golder Associates

Mr. Hamilton Oven, DEP-SCO

Mr. Len Kozlov, P.E., DEP-CD

Ms. Barbara Friday, DEP Tallahassee [barbarafriday@dep.state.fl.us]( for posting with U.S. EPA, Region 4)

U.S. EPA, Region 4 (INTERNET E-mail Memorandum)

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to Section 120.52(7), Florida Statutes, with the designated agency Clerk, receipt

of which is hereby acknowledged.

rk) //

Date

FINAL Permit Revision No. 0970014-009-AV Intercession City Power Plant Page 3 of 3

#### FINAL PERMIT DETERMINATION

#### I. Comment(s).

No comments were received from U.S. EPA, Region 4, concerning the PROPOSED Title V Permit Revision that was posted on the Department's web site on June 10, 2005.

#### II. Conclusion.

The permitting authority hereby issues the FINAL Permit Revision No. 0970014-009-AV with no changes.

#### STATEMENT OF BASIS

Progress Energy Florida Intercession City Facility Osceola County

FINAL Title V Air Operation Permit Revision No.: 0970014-009-AV

This Title V Air Operation Permit revision is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, 62-213 and 62-214. This facility Title V Air Operation Permit Renewal, 0970014-007-AV, was issued on December 30, 2002. The above named permittee is hereby authorized to operate the facility shown on the application and approved drawing(s), plans, and other documents, attached hereto or on file with the permitting authority, in accordance with the terms and conditions of this permit.

The purpose of this permit revision is to incorporate the following language: "ASTM D1552-90 or later editions" to the list of acceptable fuel oil tests methods in Section III, Specific Conditions A.12, B.16 and B.25. A later edition of this method (ASTM D1552-95) is referenced in Rule 62-297.440(1)(m) F.A.C and 40 CFR 60.335 (ASTM D1552-01). Insignificant changes (i.e. address change, subtitles) to the General Conditions and the Appendix H-1 were also made.

The following conditions are revised:

A.12. The fuel sulfur content, percent by weight, provided by the vendor or permittee for each delivery of liquid fuels shall be evaluated using either ASTM D1552-90 or later editions, ASTM D2622-94, ASTM D4294-90(95), or both ASTM D4057-88 and ASTM D129-91(95), or the later editions. In addition, any ASTM method (or later editions) referenced in Rule 62-297-440(1) F.A.C., or in 40 CFR 60.335 (b) (10) is acceptable.

[Rules 62-213.440 and 62-297.440, F.A.C.]

B.16. The test method for sulfuric acid mist (H<sub>2</sub>SO<sub>4</sub>) emissions shall be EPA Method 8, incorporated and adopted by reference in Rule 62-204.800, F.A.C., and referenced in Chapter 62-297, F.A.C. No. 2 fuel oil analysis using ASTM D1552-90 or later editions, ASTM D4294-90, or the later editions, may be used in lieu of EPA Method 8 for the determination of H<sub>2</sub>SO<sub>4</sub> mist, only if compliance with the permit allowable for the sulfur content in the No. 2 fuel oil fired at the facility has been demonstrated. In addition, any ASTM method (or later editions) referenced in Rule 62-297-440(1) F.A.C., or in 40 CFR 60.335 (b) (10) is acceptable.

[Rules 62-204.800 and 62-297.401, F.A.C.; and, AC 49-203114/PSD-FL-180(A)]

B.25. The permittee shall determine compliance with the sulfur content standard in 40 CFR 60.333(b) as follows: ASTM D1552-90 or later editions, shall be used to determine the sulfur content of liquid fuels and ASTM D1072-90(94)E-1, D3031-81(86), D4084-94, or D3246-92 or later editions shall be used for the sulfur content of gaseous fuels [incorporated by reference in 40 CFR 60.17 or the latest edition(s)]. In addition, any ASTM method (or later editions) referenced in Rule 62-297-440(1) F.A.C., or in 40 CFR 60.335 (b) (10) is acceptable. 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 approval of the Administrator. [40 CFR 60.335(d)]

This facility consists of fourteen simple cycle combustion turbines (CTs), 6 are pre-NSPS and 8 are NSPS Subpart GG sources operating in a peaking mode.

DRAFT Title V Air Operation Permit Revision No.: 0970041-009-AV

Page 2 of 2

The six pre-NSPS combustion turbines (CTs 1 through 6) are GE electrical generators having a nominal power production output of 56.7 megawatts per CT. Each turbine has a maximum heat input of 708 MMBtu/hour. SO<sub>2</sub> emissions are controlled by burning new No. 2 low sulfur fuel oil (0.5 percent, by weight). NOx emissions are not controlled. Each turbine exhausts through a separate stack. These units are not subject to any federal requirements, NSPS - 40 CFR 60, Subpart GG, Standards of Performance for Stationary Gas Turbines or Acid Rain. The above units began commercial service in 1974. The emissions units are regulated under Rule 62-210.300, F.A.C., Permits Required.

Combustion Turbines, CTs 7 through 10 are General Electric Model No. PG7111 EA units and CT 11 is a Siemens V84.3 unit with electrical generator set having a nominal power production output of 92.9 megawatts per CT and 171 megawatts, respectively. The GE CT's and the Siemens CT have a maximum heat input rating at 59° Fahrenheit (F) of 1048 and 1477 MMBtu/hour, respectively. NO<sub>X</sub> and SO<sub>2</sub> emissions are controlled with water injection and burning new No. 2 low sulfur fuel oil, respectively. These combustion turbines exhaust through individual stacks. The GE units began commercial service in 1993 and the Siemens unit began commercial service in 1994.

Combustion Turbines CTs 12, through 14 are dual fired General Electric Model No. PG7121 7EA with electrical generator set having a nominal power production output of 91 MW. The units may employ an evaporative cooling system. Dry low-NO<sub>X</sub> (DLN) combustion technology is used to control nitrogen oxide emissions when firing the primary fuel of pipeline natural gas. NO<sub>X</sub> and SO<sub>2</sub> emissions are controlled with water injection and burning new No.2 low sulfur fuel oil (back up fuel), respectively. These units began commercial operation during 2001.

Combustion Turbines, CTs 7 through 14 are regulated under Acid Rain, Phase II and under NSPS - 40 CFR 60, Subpart GG (Standards of Performance for Stationary Gas Turbines), which is adopted and incorporated by reference in Rule 62-204.800(7)(b), F.A.C. and a BACT determination, dated August 17, 1992 (CTs 7 through CT 11) and January 30, 2002 (CTs 12 through CT 14).

CAM does not apply to the controlled units at this facility because the Acid Rain NO<sub>X</sub> CEMS are being used for continuous compliance.

Also included in this permit are miscellaneous unregulated and insignificant emissions units and/or activities.

Based on the Title V Air Operation Permit Renewal application received July 1, 2002, this facility is not a major source of hazardous air pollutants (HAPs).

Progress Energy Florida Intercession City Facility Facility ID No.: 0970014 Osceola County

Title V Air Operation Permit Revision

FINAL Permit Project No.: 0970014-009-AV

Revision of Title V Air Operation Permit No.: 0970014-007-AV

Permitting Authority:
State of Florida
Department of Environmental Protection
Division of Air Resources Management
Bureau of Air Regulation

Mail Station #5505 2600 Blair Stone Road Tallahassee, Florida 32399-2400

Title V Section

Telephone: 850/488-0114 Fax: 850/922-6979

## Title V Air Operation Permit Revision FINAL Permit No.: 0970014-009-AV

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# Department of Environmental Protection

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

Colleen M. Castille Secretary

Permittee:

Progress Energy Florida, Inc. 6525 Osceola Polk County Line Road Intercession City, Florida 33848 FINAL Permit No.: 0970014-009-AV Facility ID No.: 0970014 Intercession City

SIC Nos.: 49

Project: Title V Air Operation Permit Revision

The purpose of this permit revision is to incorporate the following language: "ASTM D1552-90 or later editions" to the list of acceptable fuel oil tests methods in the current Title V Air Operation Permit, Section III, Specific Conditions A.12, B.16 and B.25. This facility is located at 6525 Osceola Polk County Line Road, Intercession City, Osceola County.

This Title V Air Operation Permit Revision is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, 62-213, and 62-214. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents, attached hereto or on file with the permitting authority, in accordance with the terms and conditions of this permit.

Referenced attachments made a part of this permit:

Appendix U-1, List of Unregulated Emissions Unit(s) and/or Activities
Appendix I-1, List of Insignificant Emissions Units and/or Activities
APPENDIX TV-4, TITLE V CONDITIONS (version dated 02/12/02)
APPENDIX SS-1, STACK SAMPLING FACILITIES (version dated 10/07/96)
FIGURE 1 - SUMMARY REPORT-GASEOUS AND OPACITY EXCESS EMISSION AND
MONITORING SYSTEM PERFORMANCE REPORT (40 CFR 60; July, 1996)
Phase II Acid Rain Application/Compliance Plan received July 30, 2002.

Effective Date: August 4, 2005

Renewal Application Due Date: July 5, 2007

Expiration Date: December 31, 2007

Michael G. Cooke, Director

hulant D- Corece.

Division of Air Resource Management

MGC/TLV/AL/th

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### Section I. Facility Information.

#### Subsection A. Facility Description.

The existing facility is an electric power generating plant consisting of fourteen combustion turbine peaking units (P1-P14). Units P1-P6 each consists of two gas turbines having a combined nominal generating capacity of 56.7 MW and firing No. 2 distillate oil. Units P7-P10 each consist of a General Electric Model 7EA gas turbine having a nominal generating capacity of 96.3 MW and firing natural gas or distillate oil. Unit P11 is a Siemens Model V84.3 having a nominal generating capacity of 171 MW and firing distillate oil. Units P12-P14 each consists of a General Electric Model 7EA gas turbine with a nominal generating capacity of 91 MW when firing natural gas or distillate oil. Also included in this permit are miscellaneous unregulated and insignificant emissions units and/or activities.

Based on the Title V renewal permit application received July 1, 2002, this facility is not a major source of hazardous air pollutants (HAPs).

#### Subsection B. Summary of Emissions Unit ID No(s). and Brief Description(s).

E.U. ID No.	Brief Description
-001 to -006	6 - Combustion Turbine Peaking Units (Pre-NSPS)
-007 to -011	5 - Combustion Turbines (NSPS)
-018 to -020	3 - Combustion Turbines (NSPS)

Please reference the Permit No., Facility ID No., and appropriate Emissions Unit(s) ID No(s). on all correspondence, test report submittals, applications, etc.

#### Subsection C. Relevant Documents.

The documents listed below are not a part of this permit; however, they are specifically related to this permitting action.

These documents are provided to the permittee for information purposes only:

Table 1-1, Summary of Air Pollutant Standards and Terms

Table 2-1, Summary of Compliance Requirements

Appendix A-1, Abbreviations, Acronyms, Citations, and Identification Numbers

Appendix H-1, Permit History/ID Number Changes

Statement of Basis

FINAL Title V Permit No.: 0970014-009-AV

Facility ID No.: 0970014

These documents and related correspondence are on file with the permitting authority: Initial Title V Air Operation Permit, 0970014-001, issued January 5, 1998.

Title V Air Operation Permit Renewal, 0970014-007, issued December 30, 2002

Title V Air Operation Permit Revision Application, 0970014-009, Received January 18, 2005

Documents listed in Appendix H-1 History

#### Section II. Facility-wide Conditions.

#### The following conditions apply facility-wide:

- 1. APPENDIX TV-4, TITLE V CONDITIONS, is a part of this permit.
  {Permitting note: APPENDIX TV-4, TITLE V CONDITIONS, is distributed to the permittee only.
  Other persons requesting copies of these conditions shall be provided a copy when requested or otherwise appropriate.}
- 2. Not federally enforceable. General Pollutant Emission Limiting Standards. Objectionable Odor Prohibited. No person shall cause, suffer, allow, or permit the discharge of air pollutants which cause or contribute to an objectionable odor.

  [Rule 62-296.320(2), F.A.C.]
- 3. General Particulate Emission Limiting Standards. General Visible Emissions Standard. Except for emissions units that are subject to a particulate matter or opacity limit set forth or established by rule and reflected by conditions in this permit, no person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity, the density of which is equal to or greater than that designated as Number 1 on the Ringelmann Chart (20 percent opacity). EPA Method 9 is the method of compliance pursuant to Chapter 62-297, F.A.C. [Rule 62-296.320(4)(b)1. & 4., F.A.C.]
- 4. Prevention of Accidental Releases (Section 112(r) of CAA).
- a. The permittee shall submit its Risk Management Plan (RMP) to the Chemical Emergency Preparedness and Prevention Office (CEPPO) RMP Reporting Center when, and if, such requirement becomes applicable. Any Risk Management Plans, original submittals, revisions or updates to submittals, should be sent to:

RMP Reporting Center
Post Office Box 1515

Lanham-Seabrook, Maryland 20703-1515
Telephone: 301/429-5018

and,

- b. The permittee shall submit to the permitting authority Title V certification forms or a compliance schedule in accordance with Rule 62-213.440(2), F.A.C.
  [40 CFR 68]
- 5. <u>Unregulated Emissions Units and/or Activities</u>. Appendix U-1, List of Unregulated Emissions Units and/or Activities, is a part of this permit. [Rule 62-213.440(1), F.A.C.]
- 6. <u>Insignificant Emissions Units and/or Activities</u>. Appendix I-1, List of Insignificant Emissions Units and/or Activities, is a part of this permit. [Rules 62-213.440(1), 62-213.430(6) and 62-4.040(1)(b), F.A.C.]

FINAL Title V Permit No.: 0970014-009-AV Facility ID No.: 0970014

7. General Pollutant Emission Limiting Standards. Volatile Organic Compounds Emissions or Organic Solvents Emissions. The permittee shall allow no person to 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.

{Permitting Note: No vapor emission control devices or systems are deemed necessary nor ordered by the Department as of the issuance date of this permit.}
[Rule 62-296.320(1)(a), F.A.C.]

- 8. Not federally enforceable. Reasonable precautions should be taken to prevent emissions of unconfined particulate matter at this facility. Steps presently taken at the facility to minimize particulate emissions are as follows:
- ♦ Maintenance of paved areas as needed,
- · Regular mowing of grass and care of vegetation,
- ♦ Limiting access to plant property by unnecessary vehicles, and
- ♦ Additional or alternative activities may be utilized to minimize unconfined particulate emissions. [Rule 62-296.320(4)(c)2., F.A.C.; and, proposed by applicant in the Title V permit renewal application received July 1, 2002.]

{Permitting Note: Condition No. 8 implements the requirements of Rules 62-296.320(4)(c)1., 3., & 4., F.A.C., (see Condition No. 57. of Appendix TV-4).}

- 9. <u>Timely Recording, Monitoring and Reporting</u>: When appropriate, any recording, monitoring, or reporting requirements that are time-specific shall be in accordance with the effective date of the permit, which defines day one.
  [Rule 62-213.440, F.A.C.]
- 10. State Compliance Authority: The permittee shall submit all compliance-related notifications and reports required of this permit to the Department's Central District office:

Department of Environmental Protection Central District Office 3319 Maguire Boulevard, Suite 232 Orlando, Florida 32803-3767 Telephone: 407/894-7555 Fax: 407/897-2966

11. EPA Compliance Authority: Any reports, data, notifications, certifications and requests required to be sent to the United States Environmental Protection Agency, Region 4, should be sent to:

United States Environmental Protection Agency, Region 4
Air, Pesticides & Toxics Management Division
Air & EPCRA Enforcement Branch
Air Enforcement Section
61 Forsyth Street
Atlanta, GA 30303-8960
Phone: 404/562-9155

Fax: 404/562-9163

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FINAL Title V Permit No.: 0970014-009-AV

Facility ID No.: 0970014

12. Statement of Compliance. The annual statement of compliance pursuant to Rule 62-213.440(3)(a)2., F.A.C., shall be submitted to the Department and EPA within 60 (sixty) days after the end of the calendar year using DEP Form No. 62-213.900(7), F.A.C..
[Rules 62-213.440(3) and 62-213.900, F.A.C.]

{Permitting Note: This condition implements the requirements of Rules 62-213.44(3)(a)2. & 3., F.A.C. (see condition No. 51. of Appendix TV-4, Title V Conditions).}

13. Certification by Responsible Official (RO). In addition to the professional engineering certification required for applications by Rule 62-4.050(3), F.A.C., any application form, report, compliance statement, compliance plan and compliance schedule submitted pursuant to Chapter 62-213, F.A.C., shall contain a certification signed by a responsible official that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. Any responsible official who fails to submit any required information or who has submitted incorrect information shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary information or correct information.
[Rule 62-213.420(4), F.A.C.]

#### Section III. Emissions Unit(s) and Conditions.

#### Subsection A. This section addresses the following emissions unit(s).

E. U. ID No.	Brief Description
-001 to -006	Combustion Turbine Peaking Units CTP 1, CTP 2, CTP 3, CTP 4, CTP 5, & CTP 6

The above referenced turbines may fire new No. 2 fuel oil having a maximum sulfur content of 0.5 percent, by weight. Each turbine has a maximum heat input of 708 MMBtu/hour and power a generator rated at 56.7 MW (megawatts of electricity). Emissions are not controlled and each turbine exhausts through a separate stack. These units are not subject to the following federal requirements, NSPS - 40 CFR 60, Subpart GG, Standards of Performance for Stationary Gas Turbines or Acid Rain. The above units began commercial service in 1974.

{Permitting Note: The emissions units are regulated under Rule 62-210.300, F.A.C., Permits Required.}

#### The following specific conditions apply to the above referenced emissions units:

#### Essential Potential to Emit (PTE) Parameters

A.1. Permitted Capacity. The maximum heat input rate shall not exceed 708 MMBtu/hour/CT while firing new No. 2 fuel oil. [Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.]

{Permitting note: The heat input limitations have been placed in each permit to identify the capacity of each unit for the purposes of confirming that emissions testing is conducted within 90 to 100 percent of the unit's rated capacity (or to limit future operation to 110 percent of the test load), to establish appropriate emission limits and to aid in determining future rule applicability. Regular record keeping is not required for heat input. Instead, the owner or operator is expected to determine heat input whenever emission testing is required, to demonstrate at what percentage of the rated capacity that the unit was tested. Rule 62-297.310(5), F.A.C., included in the permit, requires measurement of the process variables for emission tests. Such heat input determination may be based on measurements of fuel consumption by various methods including but not limited to fuel flow metering or tank drop measurements, using the heat value of the fuel determined by the fuel vendor or the owner or operator, to calculate average hourly heat input during the test.}

- A.2. Emissions Unit Operating Rate Limitation After Testing. See specific condition A.13.
- A.3. Methods of Operation Fuels. Only new No. 2 fuel oil having a maximum sulfur content of 0.5 percent, by weight, shall be fired in the turbines at a maximum consumption rate of 123 bbls/hr/turbine. [Rules 62-4.160(2) and 62-213.440(1), F.A.C.; and, AO 49-176549.]
- A.4. Hours of Operation. Each emissions unit may operate continuously, i.e., 8,760 hours/year/CT. [Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.]

#### **Emission Limitations and Standards**

{Permitting note: Table 1-1, Summary of Air Pollutant Standards and Terms, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

A.5. <u>Visible Emissions</u>. Visible emissions from each turbine shall not be equal to or greater than 20 percent opacity.

[Rule 62-296.320(4)(b)1., F.A.C.; and, AO 49-176549.]

{Permitting Note: Unless otherwise specified, the averaging time for condition A.5. is based on the specified averaging time of the applicable test method.}

A.6. Sulfur Content. The sulfur content of the new No. 2 fuel oil shall not exceed 0.5 percent, by weight.

[Requested in initial Title V permit application received on June 14, 1996.]

#### **Excess Emissions**

{Permitting note: The Excess Emissions Rule at Rule 62-210.700, F.A.C., cannot vary any requirement of an NSPS or NESHAP provision.}

- A.7. Excess emissions from these emissions units resulting from startup, shutdown or malfunction shall be permitted provided that best operational practices to minimize emissions are adhered to and 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.]
- A.8. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited.

  [Rule 62-210.700(4), F.A.C.]

#### Monitoring of Operations

A.9. The permittee shall demonstrate compliance with the sulfur content limit with a fuel analysis provided by the vendor or permittee upon each fuel delivery. See specific condition A.12. [Rule 62-213.440, F.A.C.; and, AO 49-176549.]

#### A.10. 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.]

#### Test Methods and Procedures

{Permitting note: Table 2-1, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

A.11. The test method for visible emissions shall be EPA Method 9, incorporated and adopted by reference in Chapter 62-297, F.A.C. [Rules 62-204.800, 62-296.320(4)(b)4.a. and 62-297.401, F.A.C.]

A.12. The fuel sulfur content, percent by weight, provided by the vendor or permittee for each delivery of liquid fuels shall be evaluated using either ASTM D1552-90 or later editions, ASTM D2622-94, ASTM D4294-90(95), or both ASTM D4057-88 and ASTM D129-91(95), or the later editions. In addition, any ASTM method (or later editions) referenced in Rule 62-297-440(1) F.A.C., or in 40 CFR 60.335 (b) (10) is acceptable.

[Rules 62-213.440 and 62-297.440, F.A.C.]

#### A.13. Operating Rate During Testing.

Testing of emissions shall be conducted with the emissions unit operating at permitted capacity. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity (i.e., at less than 90 percent of the maximum operation rate allowed by the permit); in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted, provided however, operations do not exceed 100 percent of the maximum operation rate allowed by the permit. Once the emissions 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.]

#### A.14. Applicable Test Procedures.

- (a) Required Sampling Time.
  - 2. Opacity Compliance Tests. The required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. Exceptions to these requirements are as follows:
    - c. The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.

[Rule 62-297.310(4)(a)2.c., F.A.C.]

A.15. Frequency of Compliance Tests. The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required. (a) General Compliance Testing.

3. The owner or operator of an emissions unit that is subject to any emission-limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to Rule 62-210.300 (2) (a)3.b., c., or d., F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:

- a. Did not operate; or
- b. In the case of a fuel burning emissions unit, burned liquid fuel for a total of no more than 400 hours.
- 4. During each federal fiscal year (October 1 September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:
  - a. Visible emissions;
- 8. Any combustion turbine that does not operate for more than 400 hours per year shall conduct a visible emissions compliance test once per each five-year period, coinciding with the term of its air operation permit.
- 9. 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.
- (b) 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 may 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.
- (c) Waiver of Compliance Test Requirements. If the owner or operator of an emissions unit that is subject to a compliance test requirement demonstrates to the Department, pursuant to the procedure established in Rule 62-297.620, F.A.C., that the compliance of the emissions unit with an applicable weight emission limiting standard can be adequately determined by means other than the designated test procedure, such as specifying a surrogate standard of no visible emissions for particulate matter sources equipped with a bag house or specifying a fuel analysis for sulfur dioxide emissions, the Department shall waive the compliance test requirements for such emissions units and order that the alternate means of determining compliance be used, provided, however, the provisions of Rule 62-297.310(7)(b), F.A.C., shall apply.

[Rule 62-297.310(7), F.A.C.; SIP approved]

A.16. <u>Visible Emissions Testing - Annual</u>. By this permit, annual emissions compliance testing for visible emissions is not required for these emissions units while burning only liquid fuels for less than 400 hours per year.

[Rules 62-297.310(7)(a)4. and 8., F.A.C.]

#### Record keeping and Reporting Requirements

A.17. <u>Malfunction Reporting</u>. In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department 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.]

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#### A.18. Test Reports.

(a) 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.

(b) 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. [Rule 62-297.310(8), F.A.C.]

#### Section III. Emissions Unit(s) and Conditions.

#### Subsection B. This section addresses the following emissions unit.

E.U. ID No.	BRIEF DESCRIPTION
-007 to -010	Combustion Turbine Units CT 7, CT 8, CT 9, & CT 10
-011	Combustion Turbine CT 11

CTs. 7 through 10 are GE PG7111(EA) units and CT 11 is a Siemens V84.3 unit with generator ratings of 96.3 megawatts/CT and 171 megawatts/CT, respectively. The GE CT's and the Siemens CT have a maximum heat input rating at 59° Fahrenheit (F) of 1048 and 1477 MMBtu/hour, respectively. NO<sub>x</sub> and SO<sub>2</sub> emissions are controlled with water injection and burning new No. 2 low sulfur fuel oil, respectively. The combustion turbines exhaust through individual stacks. The GE units began commercial service in August 1993 and the Siemens unit began commercial service in January 1997.

{Permitting note: CTs. 7 through 10 are regulated under Acid Rain, Phase II. All of the above CTs are regulated under; NSPS - 40 CFR 60, Subpart GG (Standards of Performance for Stationary Gas Turbines), which is adopted and incorporated by reference in Rule 62-204.800(7)(b), F.A.C.; a BACT determination (PSD-FL-180), dated August 17, 1992; and, Air Construction Permit No. 0970014-002-AC, issued May 17, 1999. For CTs 7 - 10: stack heights = 50 feet, exit diameters = 13.75, exit temperatures = 1,043 °F, and actual volumetric flow rates = 1,551,317 acfm. For CT 11: stack height = 75 feet, exit diameter = 19, exit temperature = 1,043 °F, and actual volumetric flow rates = 2,370,627 acfm.}

The following specific conditions apply to the emissions units listed above:

#### Essential Potential to Emit (PTE) Parameters

B.1. Permitted Capacity. The GE and Siemens turbines have generator nameplate ratings of 96.3 and 171 megawatts, respectively. The heat input to the GE and Siemens turbines at 59° F is 1048 and 1477 MMBtu/hr, respectively. A maximum heat input of 1144 MMBtu/hr/GE CT at 20° F during peak loading and 2032 MMBtu/hr/Siemens CT at 20° F during peak loading shall not be exceeded. The heat input will be corrected in accordance with specific condition B.28. [Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; and, AC 49-203114/PSD-FL-180(A)]

{Permitting note: The heat input limitations have been placed in each permit to identify the capacity of each unit for the purposes of confirming that emissions testing is conducted within 90 to 100 percent of the unit's rated capacity (or to limit future operation to 110 percent of the test load), to establish appropriate emission limits and to aid in determining future rule applicability. Regular record keeping is not required for heat input. Instead, the owner or operator is expected to determine heat input whenever emission testing is required, to demonstrate at what percentage of the rated capacity that the unit was tested. Rule 62-297.310(5), F.A.C., included in the permit, requires measurement of the process variables for emission tests. Such heat input determination may be based on measurements of fuel consumption by various methods including but not limited to fuel flow metering or tank drop measurements, using the heat value of the fuel determined by the fuel vendor or the owner or operator, to calculate average hourly heat input during the test.}

B.2. Emissions Unit Operating Rate Limitation After Testing. See specific condition B.28.

#### B.3. Methods of Operation.

- a. Fuels. Only natural gas or new No. 2 fuel oil having a maximum sulfur content of 1 grain per 100 dscf and 0.2% or less, by weight, respectively, shall be fired in these turbines at all times. To comply with the SO<sub>2</sub> allowable emissions of 222 lbs/hr/GE CT and 407 lbs/hr/Siemens CT, the fuel oil consumption is 150,770,250 gal./yr. (based on an average 7826 gal/hr/GE CT and an average 13,171 gal/hr/Siemens CT, a capacity factor of 38.7%, 59° F, a 7.1 lbs/gal density, a maximum 0.2% S content by wt., and peak load).
- b. <u>Inlet Foggers</u>. The inlet foggers installed at the compressor inlet to each of the four simple cycle combustion turbines (CTs 7-10) may operate up to 7,000 hours per year in aggregate (average 1,750 hours per unit per year).

[Rule 62-213.410, F.A.C.; AC 49-203114/PSD-FL-180(A); 0970014-001-AV; and, 0970014-002-AC.]

B.4. Hours of Operation. The cumulative hours of operation for any CT combination, while firing fuel oil with 0.2% S by weight, is 14,455 hours/ calendar year (based on an average 2891 hours/year/CT, an average capacity factor of 33%, 59° F, and at peak load). A maximum capacity factor of 38.7% is allowed if the weighted 12-month rolling average sulfur content, by weight, of the fuels burned are 0.16% or less. See specific condition No. B.5.

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; and, AC 49-203114/PSD-FL-180(A)]

B.5. Capacity Factors. The permitted capacity factors for these emissions units are the ratio of average permitted hours of operation for each turbine to the total available hours of operation per year at peak load. The average capacity factor for these turbines shall be limited to 33% (<sup>2891 hrs</sup>/<sub>8760 hrs</sub>) at peak load and based on a weighted 12-month rolling average maximum sulfur content of 0.2%, by weight. If the weighted 12-month rolling average sulfur content is less than 0.2%, by weight, the capacity factor and operating hours may be adjusted to a maximum average of 38.7% using the following table:

Weighted 12-Month Rolling Sulfur Content (% by wt.)	% Capacity Factor	Cumulative Hours per Calendar Year (for any CT combination)
0.2 - 0.195	33.0	14,455 (based on an average 2891 hr/CT/yr)
0.19 - 0.185	34.4	15,070 (based on an average 3014 hr/CT/yr)
0.18 - 0.175	35.8	15,680 (based on an average 3136 hr/CT/yr)
0.17 - 0.165	37.2	16,295 (based on an average 3259 hr/CT/yr)
0.16 - or less	38.7	16,950 (based on an average 3390 hr/CT/yr)

[AC 49-303114/PSD-FL-180(A)]

#### Emission Limitations and Standards

{Permitting note: Table 1-1, Summary of Air Pollutant Standards and Terms, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

{Permitting note: Unless otherwise specified, the averaging times for Specific Conditions B.6. – B.8. are based on the specified averaging time of the applicable test method.}

**B.6.** Particulate Matter. Particulate matter emissions shall be controlled by the firing of natural gas or low sulfur content No. 2 fuel oil.

[Rule 62-296.406(2), F.A.C.; and, BACT dated August 17, 1992]

B.7. Emissions from CT 7, 8, 9, and 10, while firing natural gas or new No. 2 fuel oil and based on a capacity factor of 38.7%, shall not exceed the following allowable emissions:

		CT 7, 8, 9, & 10 Allowables		
Pollutant	Fuel	Standard	lbs/hr./CT	TPY
NO <sub>x</sub>	Gas	25 ppmvd @ 15% O2- dry basis	107.00	725.46
(See Note 2)	Oil	42 ppmvd @ 15% O <sub>2</sub> - dry basis	182.00	1,233.96
SO2	Gas	1 grain/100 dscf	2.99	20.27
	Oil	New No. 2 F.O max. 0.2% S by wt.	222.00	1,505.16
PM/PM <sub>to</sub>	Gas		7.50	50.85
	Oil	0.01 lb/MMBtu	15.00	101.70
VOC	Gas		3.00	20.34
	Oil		5.00	33.90
CO	Gas		21.30	144.41
	Oil	25 ppmvd	54.00	366.12
H₂SO₄	Gas		0.44	2.98
	Oil	New No. 2 F.O max. 0.2% S by wt.	18.00	122.04
Fluorides (FR)	Oil	New No. 2 F.O max. 0.2% S by wt.		
Mercury (Hg)	Oil	New No. 2 F.O max. 0.2% S by wt.		
Lead (Pb)	Oil	New No. 2 F.O max. 0.2% S by wt.		· <del></del>
Inorganic	Oil	New No. 2 F.O max. 0.2% S by wt.		
Arsenic				
Beryllium (Be)	Oil	New No. 2 F.O max. 0.2% S by wt.		
VE	Gas or	10% - Normal conditions at full load		
	Oil	20% - Exceptional conditions		

Note 1: These allowables, terms, and relevant information are compiled in Table 1-2, Air Pollutant Emission Allowables and Terms.

Note 2: The NO<sub>X</sub> emission limits are based on a 24-hour block average. See conditions B.41. & B.42. [BACT dated August 10, 1995, and accepted by applicant in AC 49-203114/PSD-FL-180(A)]

B.8. Emissions from CT 11, while firing natural gas or new No. 2 fuel oil and based on a capacity factor of 38.7%, shall not exceed the following allowables:

		CT 11 Allowables			
Pollutant	Fuel	Standard	lbs/hr.	TPY	
NO <sub>x</sub>	Gas	25 ppmvd @ 15% O <sub>2</sub> - dry basis	149.00	252.55	
(See Note 2)	Oil	42 ppmvd @ 15% O <sub>2</sub> - dry basis	334.00	566.13	
SO <sub>2</sub>	Gas	1 grain of S per 100 dscf	4.22	7.15	
	Oil	New No. 2 F.O max. 0.2% S by weight	407.00	689.87	
PM/PM <sub>10</sub>	Gas		7.50	12.71	
	Oil	0.01 lb/MMBtu	17.00	28.82	
VOC	Gas		5.30	8.98	
	Oil		9.00	15.26	
co	Gas		30.90	52.38	
	Oil	25 ppmvd	79.00	133.91	

		CT 11 Allowables (continued)			
Pollutant	Fuel	Standard	lbs/br.	TPY	
H <sub>2</sub> SO <sub>4</sub>	Gas		0.64	1.08	
	Oil	New No. 2 F.O max. 0.2% S by weight	28.00	47.47	
Fluorides (F)	Oil	New No. 2 F.O max. 0.2% S by weight			
Mercury (Hg)	Oil	New No. 2 F.O max. 0.2% S by weight			
Lead (Pb)	Oil	New No. 2 F.O max. 0.2% S by weight			
Inorganic Arsenic	Oil	New No. 2 F.O max. 0.2% S by weight			
Beryllium (Be)	Oil	New No. 2 F.O max. 0.2% S by weight		-	
VE	Gas or Oil	10% - Normal conditions at full load 20% - Exceptional conditions		-	

Note 1: These allowables, terms, and relevant information are compiled in Table 1-3, Air Pollutant Emission Allowables and Terms.

Note 2: The NO<sub>X</sub> emission limits are based on a 24-hour block average. See conditions **B.41**. & **B.42**. [BACT dated August 10, 1995, and accepted by applicant in AC 49-203114/PSD-FL-180(A)]

#### **Excess Emissions**

{Permitting note: The Excess Emissions Rule at Rule 62-210.700, F.A.C., cannot vary any requirement of an NSPS or NESHAP provision.}

- B.9. Excess emissions resulting from startup, shutdown or malfunction shall be permitted provided that best operational practices to minimize emissions are adhered to and 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 a longer duration. (See condition B.41.) [Rule 62-210.700(1), F.A.C.]
- B.10. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown, or malfunction shall be prohibited.

  [Rule 62-210.700(4), F.A.C.]

#### Monitoring of Operations

B.11. At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

[40 CFR 60.11(d)]

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#### B.12. 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.]
- **B.13.** The permittee shall operate a continuous monitoring system (CMS) to monitor and record the fuel consumption and the ratio of water to fuel being fired in each turbine. This system shall be accurate to within ± 5.0 percent and shall be approved by the Administrator.

  [40 CFR 60. 334(a)]
- **B.14.** The permittee shall monitor sulfur content and nitrogen content of the new No. 2 fuel oil and sulfur content of natural gas. These values may be provided by the vendor and the frequency of determinations of these values shall be as follows:

#### A. New No. 2 Fuel Oil

The values, sulfur and nitrogen content, shall be determined on each occasion that fuel is transferred to the storage tanks from any other source. Records of these values shall be kept by the facility for a five-year period for regulatory agency inspection purposes. For sulfur dioxide, periods of excess emissions shall be reported if the sulfur content of the fuel being fired in the gas turbine exceeds 0.2 percent.

#### B. Natural Gas

Pursuant to 40 CFR 60.334(b)(2), a custom fuel monitoring schedule for the determination of these values shall be followed for the natural gas fired at this facility and shall be as follows:

#### Custom Fuel Monitoring Schedule for Natural Gas (NG)

1. Monitoring of fuel nitrogen content shall not be required if NG is the only fuel being fired in the gas turbines.

#### 2. Sulfur Monitoring

- a. Analysis for fuel sulfur content of the natural gas shall be conducted using one of the approved ASTM reference methods for the measurement of sulfur in gaseous fuels, or an approved alternative method. The reference methods are ASTM D1072-80, ASTM D3031-81, ASTM D3246-81, and ASTM D4084-82 as referenced in 40 CFR 60.335(b)(2), or the latest edition(s).
- b. This custom fuel monitoring schedule shall become effective on the date this permit becomes valid. Effective the date of this custom schedule, sulfur monitoring shall be conducted twice monthly for six months. If this monitoring shows little variability in the fuel sulfur content, and indicates consistent compliance with 40 CFR 60.333 and the conditions of this permit, then sulfur monitoring shall be conducted once per quarter for six quarters. If monitoring data is provided by the applicant which demonstrates consistent compliance with the requirements

herein the applicant may begin monitoring as per the requirements of 2.c.

- c. If after the monitoring required in item 2.b. above, or herein, the sulfur content of the fuel shows little variability and, calculated as sulfur dioxide, represents consistent compliance with the sulfur dioxide emission limits specified under 40 CFR 60.333 and the conditions of this permit, sample analysis shall be conducted twice per annum. This monitoring shall be conducted during the first and third quarters of each calendar year.
- d. Should any sulfur analysis as required in items 2.b. or 2.c. above indicate noncompliance with 40 CFR 60.333 and the conditions of this permit, the owner or operator shall notify the Department of such excess emissions and the custom schedule shall be re-examined by the Environmental Protection Agency. Sulfur monitoring shall be conducted weekly during the interim period when this custom schedule is being re-examined.
- 3. If there is a change in fuel supply, the owner or operator must notify the Department of such change for re-examination of this custom schedule. A substantial change in fuel quality shall be considered as a change in fuel supply. Sulfur monitoring shall be conducted weekly during the interim period when this custom schedule is being re-examined.
- 4. Records of sample analysis and fuel supply pertinent to this custom schedule shall be retained for a period of five years, and be available for inspection by personnel of federal, state, and local air pollution control agencies.

[40 CFR 60.334(b)(1) and (2); and, PSD-FL-180(A) amended December 15, 1997]

#### Test Methods and Procedures

{Permitting note: Table 2-1, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

B.15. The surrogate for particulate matter (PM/PM<sub>10</sub>) emissions testing shall be EPA Method 9, incorporated and adopted by reference in Rule 62-204.800, F.A.C., and referenced in Chapter 62-297, F.A.C. If 10% opacity is exceeded at peak load, EPA Method 5, incorporated and adopted by reference in Rule 62-204.800, F.A.C., and referenced in Chapter 62-297, F.A.C., shall be used for particulate matter testing.

[Rules 62-204.800, 62-296.320(4)(b)4.a. and 62-297.401, F.A.C.; and AC 49-203114/PSD-FL-180(A)]

**B.16.** The test method for sulfuric acid mist (H2SO4) emissions shall be EPA Method 8, incorporated and adopted by reference in Rule 62-204.800, F.A.C., and referenced in Chapter 62-297, F.A.C. No. 2 fuel oil analysis using ASTM D1552-90 or later editions, ASTM D4294-90, or later editions, may be used in lieu of EPA Method 8 for the determination of H2SO4 mist, only if compliance with the permit allowable for the sulfur content in the No. 2 fuel oil fired at the facility has been demonstrated. In addition, any ASTM method (or later editions) referenced in Rule 62-297-440(1) F.A.C., or in 40 CFR 60.335 (b) (10) is acceptable.

[Rules 62-204.800 and 62-297.401, F.A.C.; and, AC 49-203114/PSD-FL-180(A)]

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**B.17.** The test method for visible emissions (VE) shall be EPA Method 9, incorporated and adopted by reference in Rule 62-204.800, F.A.C., and referenced in Chapter 62-297, F.A.C. [Rules 62-204.800, 62-296.320(4)(b)4.a. and 62-297.401, F.A.C.; and, AC 49-203114/PSD-FL-180(A)]

- B.18. The test method for carbon monoxide (CO) emissions shall be EPA Method 10, incorporated and adopted by reference in Rule 62-204.800, F.A.C., and referenced in Chapter 62-297, F.A.C. [Rules 62-204.800 and 62-297.401, F.A.C.; and, AC 49-203114/PSD-FL-180(A)]
- B.19. The test method for nitrogen oxide (NO<sub>X</sub>), sulfur dioxide (SO<sub>2</sub>), and diluent shall be EPA Method 20, incorporated and adopted by reference in Rule 62-204.800, F.A.C., and referenced in Chapter 62-297, F.A.C.

[Rules 62-204.800 and 62-297.401, F.A.C.; and, AC 49-203114/PSD-FL-180(A)]

**B.20.** The test method for volatile organic compound (VOC) emissions shall be EPA Method 25A, incorporated and adopted by reference in Rule 62-204.800, F.A.C., and referenced in Chapter 62-297, F.A.C. If compliance with the CO allowables in this permit is demonstrated, testing for VOCs using EPA Method 25A is not required.

[Rules 62-204.800 and 62-297.401, F.A.C.; and, AC 49-203114/PSD-FL-180(A)]

- B.21. A compliance test for Fluorides, Mercury, Lead, Inorganic Arsenic, and Beryllium, is not required as long as new No. 2 fuel oil is fired.
  [AC 49-203114/PSD-FL-180(A)]
- **B.22.** The permittee shall comply with the stack sampling requirements contained in Appendix SS-1, Stack Sampling Facilities (attached). [Rule 62-297.310(6), F.A.C.]
- **B.23.** To compute the nitrogen oxide emissions, the permittee shall use analytical methods and procedures that are accurate to within  $\pm 5$  percent and are approved by the Administrator to determine the nitrogen content of the fuel being fired. [40 CFR 60.335(a)]
- **B.24.** The following shall <u>only</u> be used by the permittee to demonstrate compliance with the nitrogen oxides and sulfur dioxide standards in 40 CFR 60.332 and 40 CFR 60.333:
- a. The nitrogen oxides emission rate (NO<sub>X</sub>) shall be computed for each run using the following equation:

 $NO_X = (NO_{xo}) (P_r/P_o)^{0.5} e^{19(Ho - 0.00633)} (288°K/T_a)^{1.53}$ where:

 $NO_X$  = emission rate of  $NO_X$  at 15 percent  $O_2$  and ISO standard ambient conditions, volume percent.

NO<sub>xo</sub>= observed NO<sub>x</sub> concentration, ppm by volume.

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

Po= observed combustor inlet absolute pressure at test, mmHg.

H<sub>0</sub>= observed humidity of ambient air, g H<sub>2</sub>O/g air.

e= transcendental constant, 2.718.

 $T_a$ = ambient temperature, °K.

b. Testing to establish compliance with the NO<sub>X</sub> limit shall be done at capacity, as defined in condition

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B.28. If testing demonstrates NO<sub>X</sub> emissions in excess of the allowable, set forth in this permit when operating at capacity, the following shall apply:

- 1. The monitoring device of 40 CFR 60.334(a) shall be used to determine the fuel consumption and the water-to-fuel ratio necessary to comply with 40 CFR 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 manufacture.
- c. EPA Method 20 (40 CFR 60, Appendix A) 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 NO<sub>x</sub> emissions shall be determined at each of the load conditions specified in specific condition b. above.

[40 CFR 60.335(c)(1),(2) and (3)]

{Permitting Note: The above requirements are applicable when demonstrating compliance with the NSPS limits. Proper maintenance and use of the Acid Rain NO<sub>X</sub> CEMs is an acceptable alternative for monitoring compliance with the BACT limits specified in condition B.7.}

B.25. The permittee shall determine compliance with the sulfur content standard in 40 CFR 60.333(b) as follows: ASTM D1552-90 or later editions, shall be used to determine the sulfur content of liquid fuels and ASTM D1072-90(94)E-1, D3031-81(86), D4084-94, or D3246-92 or later editions shall be used for the sulfur content of gaseous fuels [incorporated by reference in 40 CFR 60.17]. In addition, any ASTM method (or later editions) referenced in Rule 62-297-440(1) F.A.C., or in 40 CFR 60.335 (b) (10) is acceptable. 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 approval of the Administrator.

[40 CFR 60.335(d)]

B.26. To meet the requirements of 40 CFR 60.334(b), the permittee shall use the methods specified in 40 CFR 60.335(a) and (d) to determine the nitrogen and sulfur contents of the fuel being burned. The analysis may be performed by the permittee, a service contractor retained by the permittee, the fuel vendor, or any other qualified agency.

[40 CFR 60.335(e)]

B.27. 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 the two complete runs as proof of compliance, provided that the arithmetic mean of the results of the two complete runs is at least 20 percent below the allowable emission limiting standards.

[Rule 62-297.310(1), F.A.C.]

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B.28. Operating Rate During Testing. Testing of emissions shall be conducted with the emissions unit operating at permitted capacity as defined below. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity, in which case subsequent emissions unit operations are limited to 110 percent of the test load 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. The permitted capacity shall at no time be exceeded. Capacity is defined as 90 to 100 percent of the manufacturer's rated heat input achievable for the average ambient (or conditioned) air temperature during the test. If it is impracticable to test at capacity, an emissions unit may be tested at less than capacity. In such cases, the entire heat input vs. inlet temperature curve will be adjusted by the increment equal to the difference between the design heat input value and 110 percent of the value reached during the test. Data, average ambient temperature during the test, capacity vs. ambient temperature curves, and calculations necessary to demonstrate the heat input rate correction at both design and test conditions shall be submitted to the Department with the compliance test report. In no case shall a maximum heat input of 1144 MMBtu/hr/GE CT at 20° F during peak loading and 2032 MMBtu/hr/Siemens CT at 20° F during peak loading be exceeded. [Rule 62.297.310(2), F.A.C.; and, AC 49-203114/PSD-FL-180(A)]

**B.29.** Frequency of Compliance Tests. The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.

#### (a) General Compliance Testing.

- 3. The owner or operator of an emissions unit that is subject to any emission-limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to Rule 62-210.300 (2)(a)3.b., c., or d., F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:
  - a. Did not operate; or
- . b. In the case of a fuel burning emissions unit, burned liquid and/or solid fuel for a total of no more than 400 hours.
- 4. During each federal fiscal year (October 1 September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:
  - a. Visible emissions;
  - b. Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits or has the potential to emit: 5 tons per year or more of lead or lead compounds measured as elemental lead; or 100 tons per year or more of any other regulated air pollutant.
- 8. Any combustion turbine that does not operate for more than 400 hours per year shall conduct a visible emissions compliance test once per each five-year period, coinciding with the term of its air operating permit.
- 9. 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.
- (b) <u>Special Compliance Tests</u>. When the Department, after investigations, 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

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those rules is being violated, it may 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.

(c) Waiver of Compliance Test Requirements. If the owner or operator of an emissions unit that is subject to a compliance test requirement demonstrates to the Department, pursuant to the procedure established in Rule 62-297.620, F.A.C., that the compliance of the emissions unit with an applicable weight emission limiting standard can be adequately determined by means other than the designated test procedure, such as specifying a surrogate standard of no visible emissions for particulate matter sources, the Department shall waive the compliance test requirements for such emissions units and order that the alternate means of determining compliance be used, provided, however, the provisions of Rule 62-297.310(7)(b), F.A.C., shall apply.

[Rule 62-297.310(7), F.A.C.; SIP approved]

{Permitting Note: The annual NO<sub>X</sub> and SO<sub>2</sub> tests that are required by Rule 62-297.310(7), F.A.C., can be completed during the annual RATA as satisfaction of this requirement, provided all other testing requirements specified in the permit are met.}

#### B.30. Applicable Test Procedures.

- (a) Required Sampling Time.
  - 1. 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.
  - 2. Opacity Compliance Tests. The required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year (TPY) or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 TPY of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. Exceptions to these requirements are as follows:
    - a. For batch, cyclical processes, or other operations which are normally completed within less than the minimum observation period and do not recur within that time, the period of observation shall be equal to the duration of the batch cycle or operation completion time.
    - b. The observation period for special opacity tests that are conducted to provide data to establish a surrogate standard pursuant to Rule 62-297.310(5)(k), F.A.C., Waiver of Compliance Test Requirements, shall be established as necessary to properly establish the relationship between a proposed surrogate standard and an existing mass emission-limiting standard.
    - c. The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.
- (b) Minimum Sample Volume. Unless otherwise specified in the applicable rule, the minimum sample volume per run shall be 25 dry standard cubic feet.
- (c) <u>Required Flow Rate Range</u>. For EPA Method 5 particulate sampling, acid mist/sulfur dioxide, and fluoride sampling which uses Greenburg Smith type impingers, the sampling nozzle and sampling time shall be selected such that the average sampling rate will be between 0.5 and 1.0 actual cubic feet per minute, and the required minimum sampling volume will be obtained.
- (d) <u>Calibration of Sampling Equipment</u>. Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1, CALIBRATION SCHEDULE.

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(e) Allowed Modification to EPA Method 5. When EPA Method 5 is required, the following modification is allowed: the heated filter may be separated from the impingers by a flexible tube. [Rule 62-297.310(4), F.A.C.]

#### TABLE 297.310-1 CALIBRATION SCHEDULE

RANCE	MINIMUM CALIBRATION FREQUENCY	REFERENCE INSTRUMENT
Annually	ASTM Hg in glass	+/-2% ref. Thermometer or equivalent, or thermometric points
Quarterly	Calib. Liq. In	5 degrees F glass thermometer
Annually	ASTM Hg in glass	5 degrees F ref. Thermometer, NBS calibrated reference and potentiometer
Monthly	Hg barometer or NOAA station	+/-1% scale
When required or when damaged	By construction or measurements in wind tunnel D greater than 16" and standard pitot tube	See EPA Method 2, Fig. 2-2 & 2-3
Before each test or when nicked, dented, or corroded	Micrometer	+/-0.001" mean of at least three readings Max. deviation between readings .004"
1. Full Scale: When 5% change observed, Annually 2. One Point: Semiannually 3. Check after	Spirometer or When received, wet test or dry gas test meter  Comparison check	2% calibrated
	Annually  Quarterly  Annually  Monthly  When required or when damaged  Before each test or when nicked, dented, or corroded  1. Full Scale:  When 5% change observed, Annually 2. One Point: Semiannually	CALIBRATION FREQUENCY  Annually ASTM Hg in glass  Quarterly Calib. Liq. In  Annually ASTM Hg in glass  Monthly Hg barometer or NOAA station  When required or when damaged tunnel D greater than 16" and standard pitot tube  Before each test or when nicked, dented, or corroded  1. Full Scale: Spirometer or When received, wet test or dry gas test meter  2. One Point: Semiannually 3. Check after  Calib. Liq. In  ASTM Hg in glass  Micrometer or measurements in wind tunnel D greater than 16" and standard pitot tube  Micrometer  Spirometer or When received, wet test or dry gas test meter  Comparison check

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#### B.31. Test Reports.

(a) 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.

(b) 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.

- (c) 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.

[Rules 62-213.440 and 62-297.310(8), F.A.C.]

#### Recordkeeping and Reporting Requirements

**B.32.** The permittee shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.

[40 CFR 60.7(b)]

- B.33. Each owner or operator required to install a continuous monitoring system (CMS) or monitoring device shall submit an excess emissions and monitoring systems performance report (excess emissions are defined in applicable subparts) and/or a summary report form [see 40 CFR 60.7(d)] to the Administrator semiannually, except when: more frequent reporting is specifically required by an applicable subpart; or, the CMS data are to be used directly for compliance determination, in which case quarterly reports shall be submitted; or, the Administrator, on a case-by-case basis, determines that more frequent reporting is necessary to accurately assess the compliance status of the source. All reports shall be postmarked by the 30<sup>th</sup> day following the end of each calendar half (or quarter, as appropriate). Written reports of excess emissions shall include the following information:
- (1) The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h), any conversion factor(s) used, and the date and time of commencement and completion of each time period of excess emissions. The process operating time during the reporting period.
- (2) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the affected facility. The nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted.
- (3) The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments.
- (4) When no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report.

  [40 CFR 60.7(c)(1), (2), (3), and (4)]
- **B.34.** The summary report form shall contain the information and be in the format shown in Figure 1 (attached) unless otherwise specified by the Administrator. One summary report form shall be submitted for each pollutant monitored at each affected facility.
- (1) If the total duration of excess emissions for the reporting period is less than 1 percent of the total operating time for the reporting period and CMS downtime for the reporting period is less than 5 percent of the total operating time for the reporting period, only the summary report form shall be submitted and the excess emission report described in 40 CFR 60.7(c) need not be submitted unless requested by the Administrator.
- (2) If the total duration of excess emissions for the reporting period is 1 percent or greater of the total operating time for the reporting period or the total CMS downtime for the reporting period is 5 percent or greater of the total operating time for the reporting period, the summary report form and the excess emission report described in 40 CFR 60.7(c) shall both be submitted.

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{See attached Figure 1: Summary Report-Gaseous and Opacity Excess Emission and Monitoring System Performance}
[40 CFR 60.7(d)(1) and (2)]

#### **B.35.** Frequency of Reporting:

- (1) Notwithstanding the frequency of reporting requirements specified in 40 CFR 60.7(c), an owner or operator who is required by an applicable subpart to submit excess emissions and monitoring systems performance reports (and summary reports) on a quarterly (or more frequent) basis may reduce the frequency of reporting for that standard to semiannual if the following conditions are met:
- (i) For 1 full year (e.g., 4 quarterly or 12 monthly reporting periods) the affected facility's excess emissions and monitoring systems reports submitted to comply with a standard under this part continually demonstrate that the facility is in compliance with the applicable standard;
- (ii) The owner or operator continues to comply with all recordkeeping and monitoring requirements specified in 40 CFR 60, Subpart A, and the applicable standard; and
- (iii) The Administrator does not object to a reduced frequency of reporting for the affected facility, as provided in 40 CFR 60.7(e)(2).
- (2) The frequency of reporting of excess emissions and monitoring systems performance (and summary) reports may be reduced only after the owner or operator notifies the Administrator in writing of his or her intention to make such a change and the Administrator does not object to the intended change. In deciding whether to approve a reduced frequency of reporting, the Administrator may review information concerning the source's entire previous performance history during the required recordkeeping period prior to the intended change, including performance test results, monitoring data, and evaluations of an owner or operator's conformance with operation and maintenance requirements. Such information may be used by the Administrator to make a judgment about the source's potential for noncompliance in the future. If the Administrator disapproves the owner or operator's request to reduce the frequency of reporting, the Administrator will notify the owner or operator in writing within 45 days after receiving notice of the owner or operator's intention. The notification from the Administrator to the owner or operator will specify the grounds on which the disapproval is based. In the absence of a notice of disapproval within 45 days, approval is automatically granted.
- (3) As soon as monitoring data indicate that the affected facility is not in compliance with any emission limitation or operating parameter specified in the applicable standard, the frequency of reporting shall revert to the frequency specified in the applicable standard, and the owner or operator shall submit an excess emissions and monitoring systems performance report (and summary report, if required) at the next appropriate reporting period following the noncomplying event. After demonstrating compliance with the applicable standard for another full year, the owner or operator may again request approval from the Administrator to reduce the frequency of reporting for that standard as provided for in 40 CFR 60.7(e)(1) and (e)(2).

  [40 CFR 60.7(e)(1)]
- B.36. The permittee shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by this part recorded in a permanent form suitable for inspection. The file shall be retained for at least five years following the date of such measurements, maintenance, reports, and records.

  [Rule 62-213.440(1)(b), F.A.C.; and, 40 CFR 60.7(f)]

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**B.37.** In case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department 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.]

- **B.38.** For the purpose of reports required under 40 CFR 60.7(c), periods of excess emissions that shall be reported are defined as follows:
- a. 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 the applicable requirements in 40 CFR 60.332 by the performance test required in 40 CFR 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 40 CFR 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 40 CFR 60.335(a).

{Permitting Note: A properly installed and maintained NO<sub>X</sub> CEMS may be used as an acceptable alternative to measure periods of excess emissions.}

b. Sulfur dioxide. Any daily period during which the sulfur content of the fuel being fired in the gas turbine exceeds 0.2 percent, by weight, pursuant to the BACT. [40 CFR 60.334(c)(1) & (2); Rule 212.400(6), F.A.C.; and, BACT dated December 14, 1992]

#### **NSPS Common Condition**

**B.39.** No owner or operator subject to the provisions of 40 CFR 60 shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere.

[40 CFR 60.12]

#### Continuous Monitoring Requirements

- B.40. Use of NO<sub>X</sub> CEMS For Continuous Compliance. Pursuant to 40 CFR 64.2(b)(1)(vi), the applicant has elected to use the existing certified Acid Rain NO<sub>X</sub> continuous emissions monitors for continuous compliance in order to be exempted from the Compliance Assurance Monitoring (CAM) requirements contained in 40 CFR 64. Use of the NO<sub>X</sub> CEMS for continuous compliance purposes is subject to the requirements contained in Specific Conditions B.41. B.43.
- B.41. Alternate Standards and NO<sub>X</sub> CEMS Data Exclusion: The following permit conditions establish alternate standards or allow the exclusion of monitoring data for specifically defined periods of startup, shutdown, and documented malfunction of a gas turbine. These conditions apply only if operators employ the best operational practices to minimize the amount and duration of emissions during such episodes. For the following identified operational periods, 1-hour NO<sub>X</sub> emissions rate values may be excluded from the 24-hour block compliance averages in accordance with the corresponding requirements.

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(1) <u>Startup, Shutdown, and Malfunction</u>: No more than 1 hourly emission rate value due to startup shall be excluded per cycle. No more than 1 hourly emission rate value due to shutdown shall be excluded per cycle. No more than 2 hourly emission rate values shall be excluded in a 24-hour period due to malfunction. No more than 4 hourly emission rate values shall be excluded in a 24-hour period due to all startups, shutdowns, and malfunctions. Note: A fuel-switch is not considered "startup".

(2) Tuning: If the permittee provides at least five days advance notice prior to a major tuning session performed by the manufacturer's representative, hourly NO<sub>X</sub> emissions rate values during tuning may be excluded from the 24-hour block compliance averages. Data excluded due to tuning shall not count towards the limit on total excluded data in a 24-hour period. {Permitting Note: As an example, a major tuning session would occur after a combustor change-out. A tuning session may take a several hours each day over a few days. No more than two major tuning sessions would be expected during any year. Major tuning sessions are intended to return the unit to manufacturer's specifications for efficient operation and should result in lower actual emissions.}

[Rules 62-4.130 & 62-210.700(5); and, Applicant Request Dated September 25, 2002.]

B.42. NO<sub>X</sub> CEMS Requirements: For each gas turbine, the permittee shall keep calibrated, maintain, and operate continuous emissions monitors (CEMS) to measure and record emissions of nitrogen oxides (NO<sub>X</sub>) and oxygen (O<sub>2</sub>) in a manner sufficient to demonstrate compliance with the standards of this permit. A monitor for carbon dioxide (CO<sub>2</sub>) may be used in place of the oxygen monitor, but the system shall be capable of correcting the emissions to 15% oxygen.

(a) Performance Specifications. Each monitor shall be installed in a location that will provide emissions measurements representative of actual stack emissions. Each CEMS shall comply with the corresponding performance specifications that identify location, installation, design, performance, and reporting requirements.

- (1) Each NO<sub>X</sub> monitor shall be certified pursuant to 40 CFR Part 75 and shall be operated and maintained in accordance with the applicable requirements of 40 CFR Part 75, Subparts B and C. Record keeping and reporting shall be conducted pursuant to 40 CFR Part 75, Subparts F and G. The RATA tests required for the NO<sub>X</sub> monitor shall be performed using EPA Method 7E or 20 as defined in Appendix A of 40 CFR 60. The NO<sub>X</sub> monitor shall have dual span capability with a low span (gas) no greater than 30 ppmvd corrected to 15% O<sub>2</sub> and a high span (oil) no greater than 200 ppmvd corrected to 15% O<sub>2</sub>.
- (2) Each O<sub>2</sub> (or CO<sub>2</sub>) CEMS shall comply with Performance Specification 3 in Appendix B of 40 CFR 60. The O<sub>2</sub> reference method for the annual RATA shall be EPA Method 3A Appendix A of 40 CFR 60.
- (b) Data Collection. Each CEMS shall be designed and operated to sample, analyze, and record emissions data evenly spaced over a 1-hour period during all periods of operation. Each 1-hour average shall be computed using at least one data point in each fifteen-minute quadrant of the 1-hour block during which the unit combusted fuel. Notwithstanding this requirement, each 1-hour average shall be computed from at least two data points separated by a minimum of 15 minutes. All valid measurements or data points collected during a 1-hour block shall be used to calculate the 1-hour emission averages. If the NO<sub>X</sub> CEMS measures concentration on a wet basis, the permittee shall use approved methods for correction of measured emissions to a dry basis (0% moisture). The O<sub>2</sub> (or CO<sub>2</sub>) CEMS shall express the 1-hour emission rate values in terms of "percent oxygen by volume". The NO<sub>X</sub> CEMS shall express the 1-hour emission averages in terms of "ppmvd corrected to 15% oxygen".

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- Compliance Averages. Compliance with the 24-hour block NO<sub>X</sub> emissions standards shall be (c) based on data collected by each required CEMS. The 24-hour block shall start at midnight of each operating day and consist of 24 consecutive 1-hour blocks. For purposes of determining compliance with the emission standards of this permit, missing data shall not be substituted. Instead the 24-hour block average shall be determined using the remaining hourly data in the 24hour block. If a unit operates continuously throughout the day, the 24-hour block average shall be the average of 24 consecutive 1-hour emission averages. If a unit operates less than 24 hours during the day, the 24-hour block average shall be the average of the available valid 1-hour emission averages collected during actual operation If monitoring data is authorized for exclusion (due to startup, shutdown, malfunction, or tuning), the 24-hour block average shall be the average of the remaining valid 1-hour emission averages collected during actual operation. In cases of reduced operation or data exclusion, the compliance average will be based on less than 24, 1-hour emission averages. Upon completion of each 24-hour block, the permittee shall determine separate compliance averages for gas firing and oil firing. A 1-hour emissions average that includes any amount of oil firing shall only be included in the compliance average for oil firing. Upon a request from the Department, the NO<sub>X</sub> emission rate shall be corrected to ISO conditions to demonstrate compliance with the applicable standards of 40 CFR 60.332.
- (d) Data Exclusion. Except for continuous monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, each CEMS shall record emissions data at all times including episodes of startup, shutdown, and malfunction. Emissions data recorded during periods of startup, shutdown, or malfunction may only be excluded from the compliance averages in accordance with the requirements previously specified in this permit. To the extent practicable, the permittee shall minimize the duration of data excluded for startup, shutdown and malfunctions. Data recorded during startup, shutdown or malfunction shall not be excluded if the episode was caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure, which may reasonably be prevented. Best operational practices shall be used to minimize hourly emissions that occur during startup, shutdown and malfunction. Emissions of any quantity or duration that occur entirely or in part from poor maintenance, poor operation, or any other equipment or process failure, which may reasonably be prevented, shall be prohibited. Excluded emissions data shall be summarized in the required quarterly report.
- (e) Reporting: If a CEMS reports NO<sub>X</sub> emissions in excess of a standard, the permittee shall notify the Compliance Authority within one working day with a preliminary report of: the nature, extent, and duration of the excess emissions; the cause of the excess emissions; and the actions taken to correct the problem. In addition, the Compliance Authority may request a written summary report of the incident.
- (f) Monitor Availability. Monitor availability shall not be less than 95% in any calendar quarter. In the event 95% availability is not achieved, the permittee shall provide the Department with a report identifying the problems in achieving 95% availability and a plan of corrective actions that will be taken to achieve 95% availability. The permittee shall implement the reported corrective actions within the next calendar quarter. Failure to take corrective actions or continued failure to achieve the minimum monitor availability shall be violations of this permit.

[Rules 62-204.800, 62-210.700, 62-4.130, 62-4.160(8), F.A.C.; 40 CFR 60.7; and, Applicant Request Dated September 25, 2002.]

**B.43.** Annual Tests Required. If conducted at permitted capacity, the annual NO<sub>X</sub> continuous monitor RATA required pursuant to 40 CFR 75 may be substituted for the annual compliance stack test. [Applicant Request Dated September 25, 2002.]

#### Section III. Emissions Unit(s) and Conditions.

#### Subsection C. This section addresses the following emissions unit.

E.U. ID No.	BRIEF DESCRIPTION
-018 to -020	Combustion Turbine Units CT 12, CT 13 & CT 14

Each gas turbine consists of a General Electric Model No. PG7121 (7EA) dual-fuel, simple-cycle combustion turbine with electrical generator set. Each unit has a nominal power production capacity of 91 MW. These units may employ an evaporative cooling system.

{Permitting notes: These units began commercial operation during 2001 [PSD-FL-268 and 0970014-003-AC]. CT's. 12, 13 and 14 are regulated under Acid Rain, Phase II. In addition, these CT's are regulated under; NSPS – 40 CFR 60, Subpart GG (Standards of Performance for Stationary Gas Turbines), which is adopted and incorporated by reference in Rule 62-204.800(7)(b), F.A.C.; a revised BACT determination (PSD-FL-268A), dated January 30, 2002; and, Air Construction Permit No. 0970014-006-AC, issued January 30, 2002. The Subpart GG requirement to correct test data to ISO conditions applies. However, such correction is not required to demonstrate compliance with non-NSPS permit standard(s). Stack heights = 56 feet, exit diameters = 16.1 feet, exit temperatures = 993 °F, actual volumetric flow rates = 1,436,310 acfm. Dry low-NO<sub>X</sub> (DLN) combustion technology is used to control nitrogen oxide emissions when firing the primary fuel of pipeline natural gas. Water injection is used to control NO<sub>X</sub> emissions when firing low sulfur distillate oil as a backup fuel. Combustion design and clean fuels will minimize emissions of CO, PM/PM<sub>10</sub>, SAM, SO<sub>2</sub>, and VOC.}

#### **General**

C.1. <u>Definitions</u>. For the purposes of Rule 62-204.800(7), F.A.C., the definitions contained in the various provisions of 40 CFR 60 shall apply except that the term "Administrator" when used in 40 CFR 60, shall mean the Secretary or the Secretary's designee.

[40 CFR 60.2; Rule 62-204.800(7)(a), F.A.C.]

#### C.2. Circumvention.

- (a) No owner or operator subject to the provisions of 40 CFR 60 shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere.
- (b) The permittee shall not circumvent the air pollution control equipment or allow the emission of air pollutants without this equipment operating properly.

[40 CFR 60.12; and, Rule 62-210.650, F.A.C.]

C.3. Modifications. Except as provided under 40 CFR 60.14(e) and (f), any physical or operational change to an existing facility which results in an increase in the emission rate to the atmosphere of any pollutant to which a standard applies shall be considered a modification within the meaning of section 11

of the Act. Upon modification, an existing facility shall become an affected facility for each pollutant to which a standard applies and for which there is an increase in the emission rate to the atmosphere.

[40 CFR 60.14(a)]

C.4. Operating Procedures: The Best Available Control Technology (BACT) determinations established by this permit rely on "good operating practices" to minimize emissions. Therefore, all operators and supervisors shall be properly trained to operate and maintain the combustion turbines and pollution control devices in accordance with the guidelines and procedures established by each equipment manufacturer. The training shall include good operating practices as well as methods of minimizing excess emissions.

[Rules 62-4.070(3) & 62-212.400(BACT), F.A.C.; and, 0710002-006-AC]

{Permitting Note: In addition to the requirements listed below, these emissions units are also subject to the standards and requirements contained in the Acid Rain Part of this permit (see Section IV).}

#### Essential Potential to Emit (PTE) Parameters

C.5. Permitted Capacity: Each combustion turbine shall operate only in simple-cycle mode and generate a nominal 91 MW of electrical power. Operation of each unit shall not exceed 905 MMBtu per hour of heat input from firing natural gas or 978 MMBtu per hour of heat input from firing low sulfur distillate oil. Excluding startup and shutdown, operation below 50% base load is prohibited. The maximum heat inputs are based on the lower heating value (LHV) of each fuel, an inlet air temperature of 59°F, a relative humidity of 60%, an ambient air pressure of 14.7 psi, and 100% of base load. Therefore, heat input rates will vary depending upon ambient conditions and the combustion turbine characteristics. Compliance shall be determined by data compiled from the Speedtronic TM Control System adjusted for these parameters. Manufacturer's performance curves, corrected for site conditions or equations for correction to other ambient conditions, shall have been provided to the Permitting and Compliance Authorities within 45 days of completing the initial compliance testing and shall be resubmitted at any time that they are changed as the result of new testing.

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; and, 0970014-006-AC].

{Permitting note: The heat input limitations have been placed in each permit to identify the capacity of each unit for the purposes of confirming that emissions testing is conducted within 90 to 100 percent of the unit's rated capacity (or to limit future operation to 110 percent of the test load), to establish appropriate emission limits and to aid in determining future rule applicability. Regular record keeping is not required for heat input. Instead, the owner or operator is expected to determine heat input whenever emission testing is required, to demonstrate at what percentage of the rated capacity that the unit was tested. Rule 62-297.310(5), F.A.C., included in the permit, requires measurement of the process variables for emission tests. Such heat input determination may be based on measurements of fuel consumption by various methods including but not limited to fuel flow metering or tank drop measurements, using the heat value of the fuel determined by the fuel vendor or the owner or operator, to calculate average hourly heat input during the test. }

C.6. Simple Cycle Operation Only: The combustion turbines shall operate only in simple cycle mode. This requirement is based on the permittee's request, which formed the basis of the NO<sub>X</sub> BACT determination and resulted in the emission standards specified in this permit. Specifically, the NO<sub>X</sub> BACT determination eliminated several control alternatives based on technical considerations and costs due to the elevated temperatures of the exhaust gas. Any request to convert these units to combined

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cycle operation by installing a new heat recovery steam generator or connecting to an existing heat recovery steam generator shall require the permittee to perform a new, current NO<sub>X</sub> BACT analysis and the approval of the Department through a permit modification. The results of this analysis may validate the initial BACT determination or result in the submittal of a full PSD permit application, new control equipment, and new emissions standards.

[Rule 62-212.400(6)(b), F.A.C.; and, 0970014-006-AC.]

- C.7. Emissions Unit Operating Rate Limitation After Testing. See specific condition C.39. [Rule 62-297.310(2), F.A.C.]
- C.8. Methods of Operation Allowable Fuels: Each combustion turbine shall be fired by pipeline natural gas containing no more than 1 grain of sulfur per 100 dry standard cubic feet of gas. As a backup fuel, each combustion turbine may be fired with No. 2 distillate oil (or a superior grade) containing no more than 0.05% sulfur by weight. Each unit shall be capable of firing natural gas. Compliance with the limits on fuel sulfur content shall be demonstrated by the record keeping requirements and/or the conditions of the Alternate Monitoring Plan specified in this permit. It is noted that these limitations are much more stringent than the NSPS sulfur dioxide limitation and assure compliance with 40 CFR 60.333 and 60.334.

[Rules 62-4.070, F.A.C., 62-210.200, F.A.C. (Definitions – Potential Emissions), & 62-213.410, F.A.C.; Chapters 62-210 & 62-212, F.A.C.; 0970014-006-AC; and, Applicant Request]

- C.9. Hours of Operation: The following limits apply to this group of three combustion turbines.
  - (a) Installation of One Gas Turbine: When one gas turbine is installed, the total turbine operating hours shall not exceed 3390 hours during any consecutive 12 months.
  - (b) Installation of Two Gas Turbines: When two gas turbines are installed, the total turbine operating hours shall not exceed 6780 hours during any consecutive 12 months.
  - (c) Installation of Three Gas Turbines: When all three gas turbines are installed, the total turbine operating hours shall not exceed 10,170 hours during any consecutive 12 months.
  - (d) Oil Firing: Each gas turbine is limited to no more than 1000 turbine operating hours of oil firing during any consecutive 12 months. In addition, the group of three gas turbines is limited to no more than 2500 turbine operating hours of oil firing during any consecutive 12 months.

Total turbine operating hours are the sum of operating hours when firing gas and operating hours when firing oil. The permittee shall install, calibrate, operate and maintain meters to measure and accumulate the amount of each fuel fired and hours of operation for each combustion turbine.

[Rules 62-210.200, F.A.C. (Definitions – Potential Emissions) & 62-212.400(BACT); 0970014-006-AC; and, applicant request.]

#### Emission Limitations and Standards

{Permitting Note: The attached Table 1-1, Summary of Air Pollutant Standards and Terms, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

{Permitting note: Unless otherwise specified, the averaging times for Specific Conditions C.10. - C.15. are based on the specified averaging time of the applicable test method.}

C.10. Emissions Standards Summary: The following table summarizes the emissions standards specified in this permit

EU-018, 01	9, and 020: GE Model 7EA Combustion Turb	pines (P12, P13, and P14)	
Pollutant	Fuels and Controls	Emission Standards <sup>b</sup>	
CO	Gas Firing W/DLN	20.0 ppmvd @ 15% O2, 3-hour test avg. 43.0 pounds per hour, 3-hour test avg.	
	Oil Firing W/Wet Injection	20.0 ppmvd @ 15% O2, 3-hour test avg. 44.0 pounds per hour, 3-hour test avg.	
NO <sub>X</sub>	Gas Firing W/DLN Compliance by Annual Testing at Base Load	9.0 ppmvd @ 15% O2, 3-hour test avg. 33.0 pounds per hour, 3-hour test avg.	
	Continuous Compliance by CEM	10.0 ppmvd @ 15% O2, 24-hour avg.	
	Oil Firing W/Wet Injection Compliance by Annual Testing at Base Load	42.0 ppmvd @ 15% O2, 3-hour test avg. 169.0 pounds per hour, 3-hour test avg.	
	Continuous Compliance by CEM	42.0 ppmvd @ 15% O2, 24-hour avg.	
PM/PM <sub>10</sub>	Fuel Sulfur Specifications and Combustion Design	Visible emissions ≤ 10% opacity (PM estimated at 0.002 grains/dscf)	
SAM/SO <sub>2</sub>	Natural Gas Sulfur Specification	≤ 1 grain per 100 SCF of gas	
	Low Sulfur Distillate Oil Sulfur Specification	0.05% sulfur by weight	
VOC	Gas Firing W/Combustion Design	2.0 ppmvw as methane 2.0 pounds per hour	
	Oil Firing W/Combustion Design	4.0 ppmvw as methane 5.0 pounds per hour	

<sup>&</sup>lt;sup>a</sup> Oil firing is limited to 1000 hours per year per gas turbine and 2500 hours per year for all three gas turbines combined. DLN means dry low-NO<sub>X</sub> controls.

[Design; Rules 62-4.070(3) & 62-212.400(BACT), F.A.C.; and 0970014-006-AC.]

#### C.11. Carbon Monoxide (CO)

- (a) Gas Firing: When firing natural gas in a combustion turbine, CO emissions shall not exceed 43.0 pounds per hour nor 20.0 ppmvd corrected to 15% oxygen based on a 3-hour test average.
- (b) Oil Firing: When firing low sulfur distillate oil in a combustion turbine, CO emissions shall not exceed 44.0 pounds per hour nor 20.0 ppmvd based on a 3-hour test average.

The permittee shall demonstrate compliance with these standards by conducting tests in accordance with EPA Method 10 and the performance testing requirements of this permit.

[Design; Rule 62-212.400(BACT), F.A.C.; and, 0970014-006-AC.]

<sup>&</sup>lt;sup>b</sup> The mass emission limits (pounds per hour) were based on 100% base load, 59° F, and 60% relative humidity.

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#### C.12. Nitrogen Oxides (NO<sub>X</sub>)

Gas Firing: When firing natural gas in a combustion turbine, NO<sub>x</sub> emissions shall not exceed 33.0 pounds per hour nor 9.0 ppmvd corrected to 15% oxygen based on an annual 3-hour compliance test average. In addition, NO<sub>X</sub> emissions shall not exceed 10.0 ppmvd corrected to 15% oxygen based on a 24-hour block average of all valid data collected from the continuous NO<sub>X</sub> emissions monitor during actual operation.

Oil Firing: When firing low sulfur distillate oil in a combustion turbine, NO<sub>X</sub> emissions shall not exceed 169.0 pounds per hour nor 42.0 ppmvd corrected to 15% oxygen based on an annual 3hour compliance test average. In addition, NO<sub>X</sub> emissions shall not exceed 42.0 ppmvd corrected to 15% oxygen based on a 24-hour block average of all valid data collected from the continuous NO<sub>X</sub> emissions monitor during actual operation. The permittee shall set up the automated control system for water injection to reduce NO<sub>X</sub> emissions below 42.0 ppmvd corrected to 15% oxygen.

NO<sub>x</sub> emissions are defined as emissions of oxides of nitrogen measured as NO<sub>2</sub>. The permittee shall demonstrate compliance by conducting tests in accordance with EPA Methods 7E, 20 and the performance testing requirements of this permit. Compliance with the 24-hour block averages shall be demonstrated by collecting and reporting data in accordance with the conditions for the NO<sub>X</sub> continuous emissions monitor specified by this permit.

[Rule 62-212.400(BACT), F.A.C.; and, 0970014-006-AC.]

#### C.13. Fuel Sulfur:

- Gas Firing: Natural gas shall contain no more than 1 grain of sulfur per hundred standard cubic (a)
- Oil Firing: Distillate fuel oil shall contain no more than 0.05% sulfur, by weight. (b)
- All Fuels: No owner or operator subject to the provisions of 40 CFR 60.333 shall burn in any (c) stationary gas turbine any fuel which contains sulfur in excess of 0.8 percent.
- Compliance with Specific Conditions C.13.a. & b. assures compliance with the NSPS limit (d) contained in Specific Condition C.13.(c)

[0970014-006-AC.]

C.14. Particulate Matter (PM/PM<sub>10</sub>), Sulfuric Acid Mist (SAM) and Sulfur Dioxides (SO<sub>2</sub>): Emissions of PM, PM<sub>10</sub>, SAM, and SO<sub>2</sub> shall be limited by the good combustion techniques and the fuel sulfur limitations specified in this permit. The permittee shall demonstrate compliance with the fuel sulfur limits by maintaining records of the sampling and analysis required by this permit and/or as specified in the provisions of the Alternate Monitoring Plan.

[Rule 62-212.400(BACT), F.A.C.; and, 0970014-006-AC.]

#### C.15. Volatile Organic Compounds (VOCs).

- Gas Firing: When firing natural gas in a combustion turbine, VOC emissions shall not exceed 2.0 pounds per hour nor 2.0 ppmvd based on a 3-hour test average.
- Oil Firing: When firing low sulfur distillate oil in a combustion turbine, VOC emissions shall (b) not exceed 5.0 pounds per hour nor 4.0 ppmvd based on a 3-hour test average.

The VOC emissions shall be measured and reported as methane. The permittee shall demonstrate compliance with these standards by conducting tests in accordance with EPA Methods 18, 25, and/or 25A and the performance testing requirements of this permit.

[Rule 62-4.070(3), F.A.C.; and, 0970014-006-AC.]

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C.16. <u>Visible Emissions</u>. As a surrogate for PM/PM<sub>10</sub> emissions, visible emissions from the operation of a combustion turbine shall not exceed 10% opacity, based on a 6-minute average. The permittee shall demonstrate compliance with this standard by conducting tests in accordance with EPA Method 9 and the performance testing requirements of this permit.

[Rule 62-212.400(BACT), F.A.C.; and, 0970014-006-AC.]

#### **Excess Emissions**

{Permitting note: The Excess Emissions Rule at Rule 62-210.700, F.A.C., cannot vary any requirement of an NSPS or NESHAP provision.}

C.17. Excess Emissions Prohibited: Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. Such preventable emissions shall be included in the calculation of the 24-hour averages compiled by the continuous NO<sub>X</sub> emissions monitor.

[Rule 62-210.700(4), F.A.C.]

- C.18. Alternate Standards and NO<sub>X</sub> CEMS Data Exclusion: The following permit conditions establish alternate standards or allow the exclusion of monitoring data for specifically defined periods of startup, shutdown, and documented malfunction of a gas turbine. These conditions apply only if operators employ the best operational practices to minimize the amount and duration of emissions during such episodes.
- (a) Opacity: During startup and shutdown, visible emissions excluding water vapor shall not exceed 20% opacity for up to 2.0 hours in any 24-hour period.
- (b) NO<sub>X</sub> CEMS Data Exclusion: For the following identified operational periods, 1-hour NO<sub>X</sub> emissions rate values may be excluded from the 24-hour block compliance averages in accordance with the corresponding requirements.
  - (1) <u>Startup, Shutdown, and Malfunction</u>: No more than 1 hourly emission rate value due to startup shall be excluded per cycle. No more than 1 hourly emission rate value due to shutdown shall be excluded per cycle. No more than 2 hourly emission rate values shall be excluded in a 24-hour period due to malfunction. No more than 4 hourly emission rate values shall be excluded in a 24-hour period due to all startups, shutdowns, and malfunctions. Note: A fuel-switch is not considered "startup".
  - Tuning: If the permittee provides at least five days advance notice prior to a major tuning session performed by the manufacturer's representative, hourly NO<sub>X</sub> emissions rate values during tuning may be excluded from the 24-hour block compliance averages. Data excluded due to tuning shall not count towards the limit on total excluded data in a 24-hour period. {Permitting Note: As an example, a major tuning session would occur after a combustor change-out. A tuning session may take a several hours each day over a few days. No more than two major tuning sessions would be expected during any year. Major tuning sessions are intended to return the unit to manufacturer's specifications for efficient operation and should result in lower actual emissions.}

As provided by the authority in Rule 62-210.700(5), F.A.C., the above requirements are established in lieu of the provisions of Rule 62-210.700(1), F.A.C.

[Rules 62-4.130, 62-210.700(5) & 62-212.400(BACT), F.A.C.; and, 0970014-006-AC.]

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#### **Emissions Controls**

C.19. <u>Automated Control System</u>: In accordance with the manufacturer's recommendations, the permittee shall install, calibrate, tune, operate, and maintain the General Electric Speedtronic TM Gas Turbine Control System for each unit. Each system shall be designed and operated to monitor and control the gas turbine combustion process and operating parameters including, but not limited to: fuel distribution and staging, turbine speed, load conditions, combustion temperatures, water injection, and fully automated startup, shutdown, and cool-down.

[Design; Rules 62-4.070(3) & 62-212.400(BACT), F.A.C.; and, 0970014-006-AC.]

C.20. Combustion Controls: The permittee shall employ "good operating practices" in accordance with the manufacturer's recommended operating procedures to control CO, NO<sub>X</sub>, and VOC emissions. Prior to the initial emissions performance tests, the dry low-NO<sub>X</sub> (DLN) combustors and Speedtronic TM control system on each gas turbine shall be tuned to optimize the reduction of CO, NO<sub>X</sub>, and VOC emissions. Thereafter, these systems shall be maintained and tuned, as necessary, to minimize pollutant emissions.

[Design; Rules 62-4.070(3) & 62-212.400(BACT), F.A.C.; and, 0970014-006-AC.]

C.21. <u>DLN Combustion Technology</u>: To control NO<sub>X</sub> emissions when firing natural gas, the permittee shall install, tune, operate and maintain a dry low-NO<sub>X</sub> (DLN) combustion system for each combustion turbine in accordance with the manufacturer's recommendations. The permittee shall provide manufacturer's emissions performance versus load diagrams for the specific DLN system as part of the Title V permit application. Compliance with this requirement may be demonstrated by compiling data during the initial NSPS tests performed at various load conditions.

[Design; Rules 62-4.070(3) & 62-212.400(BACT), F.A.C.; and, 0970014-006-AC.]

C.22. Water Injection: To control  $NO_X$  emissions when firing low sulfur distillate oil, the permittee shall install, calibrate and operate an automated water injection system for each combustion turbine in accordance with the manufacturer's recommendations. Each water injection system shall be maintained and adjusted to minimize  $NO_X$  emissions.

[Design; Rules 62-4.070(3) & 62-212.400(BACT), F.A.C.; and, 0970014-006-AC.]

#### Monitoring of Operations

C.23. At all times, including periods of startup, shutdown and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

[40 CFR 60.11(d)]

- C.24. The owner or operator of any stationary gas turbine subject to the provisions of 40 CFR 60, Subpart GG 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:
  - (1) If the turbine is supplied its fuel from a bulk storage tank, the values shall be determined on each occasion that fuel is transferred to the storage tank from any other source.

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(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 40 CFR 60.334(b).

[40 CFR 60.334(b)(1) & (2)]

## C.25. <u>Alternate Monitoring Plan</u>: The following alternate monitoring may be used to demonstrate compliance.

- (a) The NO<sub>X</sub> CEM data may be used in lieu of the monitoring system for water-to-fuel ratio and the reporting of excess emissions in accordance with 40 CFR 60.334(c)(1), Subpart GG. The calibration of the water-to-fuel ratio-monitoring device required in 40 CFR 60.335(c)(2) will be replaced by the 40 CFR 75 certification tests of the NO<sub>X</sub> CEMS.
- (b) The NO<sub>X</sub> CEM data shall be used in lieu of the requirement for reporting excess emissions in accordance with 40 CFR 60.334(c)(1), Subpart GG.
- (c) When requested by the Department, the CEMS emission rates for NO<sub>X</sub> on this unit shall be corrected to ISO conditions to demonstrate compliance with the NO<sub>X</sub> standard established in 40 CFR 60.332.
- (d) A custom fuel monitoring schedule pursuant to 40 CFR 75 Appendix D for natural gas may be used in lieu of the daily sampling requirements of 40 CFR 60.334 (b)(2) provided the following conditions are met.
  - (1) The permittee shall apply for an Acid Rain permit within the deadlines specified in 40 CFR 72.30.
  - (2) The permittee shall submit a monitoring plan, certified by signature of the Authorized Representative, that commits to using a primary fuel of pipeline supplied natural gas containing no more than 1 grain of sulfur per 100 SCF of gas pursuant to 40 CFR 75.11(d)(2);
  - (3) Each unit shall be monitored for SO2 emissions using methods consistent with the requirements of 40 CFR 75 and certified by the U.S. EPA.

    This custom fuel-monitoring schedule will only be valid when pipeline natural gas is used as a primary fuel. If the primary fuel for these units is changed to a higher sulfur fuel, SO<sub>2</sub> emissions must be accounted for as required pursuant to 40 CFR 75.11(d).

[40 CFR 60, Subpart GG; and, 0970014-006-AC.]

#### C.26. 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.]

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#### Continuous Monitoring Requirements

C.27. NOx CEMS Requirements: For each gas turbine, the permittee shall install, calibrate, maintain, and operate continuous emissions monitors (CEMS) to measure and record emissions of nitrogen oxides (NO<sub>X</sub>) and oxygen (O<sub>2</sub>) in a manner sufficient to demonstrate compliance with the standards of this permit. A monitor for carbon dioxide (CO<sub>2</sub>) may be used in place of the oxygen monitor, but the system shall be capable of correcting the emissions to 15% oxygen.

- (a) Performance Specifications. Each monitor shall be installed in a location that will provide emissions measurements representative of actual stack emissions. Each CEMS shall comply with the corresponding performance specifications that identify location, installation, design, performance, and reporting requirements.
  - (3) Each NO<sub>X</sub> monitor shall be certified pursuant to 40 CFR Part 75 and shall be operated and maintained in accordance with the applicable requirements of 40 CFR Part 75, Subparts B and C. Record keeping and reporting shall be conducted pursuant to 40 CFR Part 75, Subparts F and G. The RATA tests required for the NO<sub>X</sub> monitor shall be performed using EPA Method 7E or 20 as defined in Appendix A of 40 CFR 60. The NO<sub>X</sub> monitor shall have dual span capability with a low span (gas) no greater than 30 ppmvd corrected to 15% O<sub>2</sub> and a high span (oil) no greater than 200 ppmvd corrected to 15% O<sub>2</sub>.
  - (4) Each O<sub>2</sub> (or CO<sub>2</sub>) CEMS shall comply with Performance Specification 3 in Appendix B of 40 CFR 60. The O<sub>2</sub> reference method for the annual RATA shall be EPA Method 3A Appendix A of 40 CFR 60.
- (b) Data Collection. Each CEMS shall be designed and operated to sample, analyze, and record emissions data evenly spaced over a 1-hour period during all periods of operation. Each 1-hour average shall be computed using at least one data point in each fifteen-minute quadrant of the 1-hour block during which the unit combusted fuel. Notwithstanding this requirement, each 1-hour average shall be computed from at least two data points separated by a minimum of 15 minutes. All valid measurements or data points collected during a 1-hour block shall be used to calculate the 1-hour emission averages. If the NO<sub>X</sub> CEMS measures concentration on a wet basis, the permittee shall use approved methods for correction of measured emissions to a dry basis (0% moisture). The O<sub>2</sub> (or CO<sub>2</sub>) CEMS shall express the 1-hour emission rate values in terms of "percent oxygen by volume". The NO<sub>X</sub> CEMS shall express the 1-hour emission averages in terms of "ppmvd corrected to 15% oxygen".
- Compliance Averages. Compliance with the 24-hour block NO<sub>X</sub> emissions standards shall be (c) based on data collected by each required CEMS. The 24-hour block shall start at midnight of each operating day and consist of 24 consecutive 1-hour blocks. For purposes of determining compliance with the emission standards of this permit, missing data shall not be substituted. Instead the 24-hour block average shall be determined using the remaining hourly data in the 24hour block. If a unit operates continuously throughout the day, the 24-hour block average shall be the average of 24 consecutive 1-hour emission averages. If a unit operates less than 24 hours during the day, the 24-hour block average shall be the average of the available valid 1-hour emission averages collected during actual operation If monitoring data is authorized for exclusion (due to startup, shutdown, malfunction, or tuning), the 24-hour block average shall be the average of the remaining valid 1-hour emission averages collected during actual operation. In cases of reduced operation or data exclusion, the compliance average will be based on less than 24, 1-hour emission averages. Upon completion of each 24-hour block, the permittee shall determine separate compliance averages for gas firing and oil firing. A 1-hour emissions average that includes any amount of oil firing shall only be included in the compliance average for oil

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firing. Upon a request from the Department, the  $NO_X$  emission rate shall be corrected to ISO conditions to demonstrate compliance with the applicable standards of 40 CFR 60.332.

- (d) Data Exclusion. Except for continuous monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, each CEMS shall record emissions data at all times including episodes of startup, shutdown, and malfunction. Emissions data recorded during periods of startup, shutdown, or malfunction may only be excluded from the compliance averages in accordance with the requirements previously specified in this permit. To the extent practicable, the permittee shall minimize the duration of data excluded for startup, shutdown and malfunctions. Data recorded during startup, shutdown or malfunction shall not be excluded if the episode was caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure, which may reasonably be prevented. Best operational practices shall be used to minimize hourly emissions that occur during startup, shutdown and malfunction. Emissions of any quantity or duration that occur entirely or in part from poor maintenance, poor operation, or any other equipment or process failure, which may reasonably be prevented, shall be prohibited. Excluded emissions data shall be summarized in the required quarterly report.
- (e) Reporting: If a CEMS reports NO<sub>X</sub> emissions in excess of a standard, the permittee shall notify the Compliance Authority within one working day with a preliminary report of: the nature, extent, and duration of the excess emissions; the cause of the excess emissions; and the actions taken to correct the problem. In addition, the Compliance Authority may request a written summary report of the incident.
- (f) Monitor Availability. Monitor availability shall not be less than 95% in any calendar quarter. In the event 95% availability is not achieved, the permittee shall provide the Department with a report identifying the problems in achieving 95% availability and a plan of corrective actions that will be taken to achieve 95% availability. The permittee shall implement the reported corrective actions within the next calendar quarter. Failure to take corrective actions or continued failure to achieve the minimum monitor availability shall be violations of this permit.

[Rules 62-204.800, 62-210.700, 62-4.130, 62-4.160(8), F.A.C.; 40 CFR 60.7; and, 0970014-006-AC.]

C.28. For the purposes of 40 CFR 60.13, all continuous monitoring systems required under applicable subparts shall be subject to the provisions of 40 CFR 60.13 upon promulgation of performance specifications for continuous monitoring systems under Appendix B of 40 CFR 60 and, if the continuous monitoring system is used to demonstrate compliance with emission limits on a continuous basis, Appendix F of 40 CFR 60, unless otherwise specified in an applicable subpart or by the Administrator. Appendix F is applicable December 4, 1987.

[40 CFR 60.13(a)]

{Permitting Note: The requirements for the NO<sub>X</sub> CEMS which are installed and maintained in accordance with 40 CFR 75 are at least as stringent as the requirements of 40 CFR 60, and are an acceptable alternative to this condition.}

C.29. All continuous monitoring systems (CMS) or monitoring devices shall be installed such that representative measurements of emissions or process parameters from the affected facility are obtained. Additional procedures for location of continuous monitoring systems contained in the applicable Performance Specifications of Appendix B of 40 CFR 60 shall be used.

[40 CFR 60.13(f)]

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#### Required Tests, Test Methods and Procedures

{Permitting Note: The attached Table 2-1, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

C.30. Annual Tests Required. Annual emissions performance tests for CO, NO<sub>X</sub>, and visible emissions from each combustion turbine shall be conducted when firing natural gas. If conducted at permitted capacity, the annual NO<sub>X</sub> continuous monitor RATA required pursuant to 40 CFR 75 may be substituted for the annual compliance stack test. An annual performance test for VOC emissions is not required as long as the unit remains in compliance with the CO and visible emissions limits specified by this permit.

If a combustion turbine operates more than 200 hours of oil firing during any federal fiscal year, the permittee shall schedule and conduct annual emissions performance tests for CO, NO<sub>X</sub>, and visible emissions when firing low sulfur distillate oil. For oil firing, compliance with the NO<sub>X</sub> standards may be determined by the continuous monitor data collected during the required CO test. An annual performance test for VOC emissions is not required as long as the unit remains in compliance with the CO and visible emissions limits specified by this permit for oil firing.

Tests required on an annual basis shall be conducted at least once during each federal fiscal year (October 1<sup>st</sup> to September 30<sup>th</sup>).

[Rule 62-297.310(7)(a)4, F.A.C.; and, 0970014-006-AC.]

C.31. Compliance with the NSPS NO<sub>X</sub> emission limit: If requested, the test method for emissions of nitrogen oxides shall be EPA Reference Method 20. During performance tests, to determine compliance with the NSPS NO<sub>X</sub> standard, measured NO<sub>X</sub> emissions at 15 percent oxygen will be adjusted to ISO ambient atmospheric conditions by the following correction factor:

$$NO_X = (NO_{XO}) (Pr/Po)^{0.5} e^{19(Ho-0.00633)} (288°K/Ta)^{1.53}$$

where:

 $NO_X$  = emission rate of  $NO_X$  at 15 percent  $O_2$  and ISO standard ambient conditions, volume percent.

 $NO_{XO}$  = observed  $NO_X$  concentration, ppm by volume.

P<sub>r</sub> = reference combustor inlet absolute pressure at 101.3 kilopascals ambient pressure, mm Hg.

P<sub>o</sub> = observed combustor inlet absolute pressure at test, mm Hg.

 $H_0$  = observed humidity of ambient air, g  $H_2O/g$  air.

E = transcendental constant, 2.718.

 $T_a$  = ambient temperature, °K.

[40 CFR 60.335(c)(1); Rule 62-297.401, F.A.C.]

- C.32. <u>Performance Test Methods</u>: Compliance tests shall be performed in accordance with the following reference methods as described in 40 CFR 60, Appendix A, and adopted by reference in Chapter 62-204.800, F.A.C.
- (a) EPA Method 7E, "Determination of Nitrogen Oxide Emissions from Stationary Sources".
- (b) EPA Method 9, "Visual Determination of the Opacity of Emissions from Stationary Sources".
- (c) EPA Method 10, "Determination of Carbon Monoxide Emissions from Stationary Sources". All CO tests shall be conducted concurrently with NO<sub>X</sub> emissions tests.
- (d) EPA Method 20, "Determination of Oxides of Nitrogen Oxide, Sulfur Dioxide and Diluent Emissions from Stationary Gas Turbines."

(e) EPA Methods 18, 25 and/or 25A, "Determination of Volatile Organic Concentrations." No other test methods may be used for compliance testing unless prior DEP approval is received, in writing, from the DEP Emissions Monitoring Section Administrator in accordance with an alternate sampling procedure pursuant to 62-297.620, F.A.C. [Rule 62-297.410, F.A.C.; and, 0970014-006-AC.]

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- C.33. Nitrogen Oxides. To compute the emissions of nitrogen oxides, the owner or operator shall use analytical methods and procedures that are accurate to within 5 percent and are approved by the Department to determine the nitrogen content of the fuel being fired.

  [40 CFR 60.335(a)]
- C.34. Compliance with standards in 40 CFR 60, other than opacity standards, shall be determined only by performance tests established by 40 CFR 60.8, unless otherwise specified in the applicable standard. [40 CFR 60.11(a)]
- C.35. Performance tests shall be conducted under such conditions as the Administrator shall specify to the plant operator based on representative performance of the affected facility. The owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test nor shall emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard.

[40 CFR 60.8(c)]

- C.36. The owner or operator shall provide, or cause to be provided, stack sampling and performance testing facilities as follows:
  - (1) Sampling ports adequate for test methods applicable to such facilities.
  - (2) Safe sampling platform(s).
  - (3) Safe access to sampling platform(s).
  - (4) Utilities for sampling and testing equipment.

[40 CFR 60.8(e)(1), (2), (3) & (4)]

- C.37. Required Stack Sampling Facilities. When a mass emissions stack test is required, the permittee shall comply with the requirements contained in Appendix SS-1, Stack Sampling Facilities, attached to this permit. Permanent stack sampling facilities shall have been installed and shall be maintained on the stacks for these units in accordance with Rule 62-297.310(6), F.A.C. [Rules 62-4.070, 62-204.800 & 62-297.310(6), F.A.C.; and, 0970014-006-AC.]
- C.38. 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

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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 the two complete runs as proof of compliance, provided that the arithmetic mean of the results of the two complete runs is at least 20 percent below the allowable emission limiting standards.

[Rule 62-297.310(1), F.A.C.]

C.39. Operating Rate During Testing/Testing procedures. Testing of emissions shall be conducted with the combustion turbine operating at permitted capacity. Permitted capacity is defined as 90-100 percent of the maximum heat input rate allowed by the permit, corrected for the average compressor inlet temperature during the test (with 100 percent represented by a curve depicting heat input vs. compressor inlet temperature). If it is impracticable to test at permitted capacity, the source may be tested at less than permitted capacity. In this case, subsequent operation is limited by adjusting the entire heat input vs. compressor inlet temperature curve downward by an increment equal to the difference between the maximum permitted heat input (corrected for compressor inlet temperature) and 110 percent of the value reached during the test 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 purposes of additional compliance testing to regain the permitted capacity. The turbine manufacturer's capacity vs. temperature (ambient) curve shall be included with the compliance test results. Test procedures shall meet all applicable requirements (i.e., testing time frequency, minimum compliance duration, etc.) of Chapter 62-204 and 62-297 F.A.C.

[Rules 62-297.310(2) & (2)(a), F.A.C.; and, 0970014-006-AC]

C.40. <u>Calculation of Emission Rate</u>. The indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the separate test runs unless otherwise specified in a particular test method or applicable rule. [Rule 62-297.310(3), F.A.C.]

#### C.41. Applicable Test Procedures.

- (a) Required Sampling Time.
  - 1. 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.
  - 2. Opacity Compliance Tests. When EPA Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. Exceptions to these requirements are as follows:
    - c. The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.
- (b) <u>Minimum Sample Volume</u>. Unless otherwise specified in the applicable rule, the minimum sample volume per run shall be 25 dry standard cubic feet.
- (d) <u>Calibration of Sampling Equipment</u>. Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1. [Rule 62-297.310(4), F.A.C.]

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#### TABLE 297.310-1 CALIBRATION SCHEDULE

ITEM TOLE	RANCE	MINIMUM CALIBRATION FREQUENCY	REFERENCE INSTRUMENT
Liquid in glass thermometer	Annually	ASTM Hg in glass	+/-2% ref. Thermometer or equivalent, or thermometric points
Bimetallic thermometer	Quarterly	Calib. Liq. In	5 degrees F glass thermometer
Thermocouple	Annually	ASTM Hg in glass	5 degrees F ref. Thermometer, NBS calibrated reference and potentiometer
Barometer	Monthly	Hg barometer or NOAA station	+/-1% scale
Pitot Tube	When required or when damaged	By construction or measurements in wind tunnel D greater than 16" and standard pitot tube	See EPA Method 2, Fig. 2-2 & 2-3
Probe Nozzles	Before each test or when nicked, dented, or corroded	Micrometer	+/-0.001" mean of at least three readings Max. deviation between readings .004"
Dry Gas Meter and Orifice Meter	1. Full Scale: When 5% change observed, Annually 2. One Point: Semiannually	Spirometer or When received, wet test or dry gas test meter	2% calibrated
	3. Check after each test series	Comparison check	5%

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C.42. <u>Frequency of Compliance Tests</u>. The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.

(a) General Compliance Testing.

- 3. The owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to Rule 62-210.300(2)(a)3.b., c., or d., F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:
  - a. Did not operate; or,
  - b. In the case of a fuel burning emissions unit, burned liquid fuel for a total of no more than 400 hours.
- 4. During each federal fiscal year (October 1 September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:
  - a. Visible emissions, if there is an applicable standard;
  - b. Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits or has the potential to emit: 5 tons per year or more of lead or lead compounds measured as elemental lead; 30 tons per year or more of acrylonitrile; or 100 tons per year or more of any other regulated air pollutant; and,
    - c. Each NESHAP pollutant, if there is an applicable emission standard.
- 8. Any combustion turbine that does not operate for more than 400 hours per year shall conduct a visible emissions compliance test once per each five-year period, coinciding with the term of its air operation permit.
- 9. 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.
- (b) 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 may 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.
- (c) Waiver of Compliance Test Requirements. If the owner or operator of an emissions unit that is subject to a compliance test requirement demonstrates to the Department, pursuant to the procedure established in Rule 62-297.620, F.A.C., that the compliance of the emissions unit with an applicable weight emission limiting standard can be adequately determined by means other than the designated test procedure, such as specifying a surrogate standard of no visible emissions for particulate matter sources equipped with a bag house or specifying a fuel analysis for sulfur dioxide emissions, the Department shall waive the compliance test requirements for such emissions units and order that the alternate means of determining compliance be used, provided, however, the provisions of Rule 62-297.310(7)(b), F.A.C., shall apply.

[Rule 62-297.310(7), F.A.C.; and, SIP approved]

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- C.43. Tests Prior to Permit Renewal: Prior to renewing the air operation permit, the permittee shall also conduct emissions performance tests for CO, NO<sub>X</sub>, VOC, and visible emissions when firing natural gas and when firing low sulfur distillate oil. These tests shall be conducted within the 12-month period prior to renewing the air operation permit. For pollutants required to be tested annually, the permittee may submit the most recent annual compliance test to satisfy the requirements of this provision. [Rule 62-297.310(7)(a)3, F.A.C.; and, 0970014-006-AC.]
- C.44. Tests After Substantial Modifications: All performance tests required for initial startup shall also be conducted after any substantial modification and appropriate shakedown period of air pollution control equipment including the replacement of dry low-NO<sub>X</sub> combustors. Shakedown periods shall not exceed 100 days after re-starting the combustion turbine.

  [Rule 62-297.310(7)(a)4, F.A.C.; and, 0970014-006-AC.]
- C.45. <u>VE Tests After Shutdown</u>: Any combustion turbine that does not operate for more than 400 hours per year shall conduct a visible emissions (VE) compliance test once per each five-year period, coinciding with the term of its air operation permit.

  [Rule 62-297.310(7)(a)8, F.A.C.; and, 0970014-006-AC.]

#### Recordkeeping and Reporting Requirements

C.46. Fuel Records.

- (a) Natural Gas: The permittee shall demonstrate compliance with the SO2 standards of this permit and in 40 CFR 60.333 by complying with the requirements in 40 CFR 75 Appendix D.
- (b) Low Sulfur Distillate Oil: For all bulk shipments of low sulfur distillate oil received at this facility, the permittee shall obtain an analysis identifying the sulfur content. An analysis provided by the fuel vendor is acceptable. Methods for determining the sulfur content of the distillate oil shall be ASTM D129-91, D2622-94, or D4294-90 or equivalent methods. Records shall specify the test method used and shall comply with the requirements of 40 CFR 60.335(d). [Rules 62-4.070(3) & 62-4.160(15), F.A.C.; and, 0970014-006-AC.]
- C.47. Monthly Operations Summary: By the fifth calendar day of each month, the owner or operator shall record the following information in a written or electronic log summarizing the previous month of operation and the previous 12 months of operation: hours of gas firing; million cubic feet of gas fired; hours of oil firing; and gallons of oil fired. The information shall be recorded for each gas turbine and for the group of three gas turbines. Information may be recorded and stored as an electronic file, but must be available for inspection and/or printing at the request of the Compliance Authority. [Rule 62-4.160(15), F.A.C.; and, 0970014-006-AC.]
- C.48. The owner or operator subject to the provisions of 40 CFR 60 shall furnish the Administrator written notification as follows:
- (4) A notification of any physical or operational change to an existing facility which may increase the emission rate of any air pollutant to which a standard applies, unless that change is specifically exempted under an applicable subpart or in 40 CFR 60.14(e). This notice shall be postmarked 60 days or as soon as practicable before the change is commenced and shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of the facility before and after the change, and the expected completion date of the change. The Administrator may request additional relevant information subsequent to this notice.

  [40 CFR 60.7(a)(4)]

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C.49. The owner or operator subject to the provisions of 40 CFR 60 shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or, any periods during which a continuous monitoring system or monitoring device is inoperative.

[40 CFR 60.7(b)]

C.50. Quarterly Excess Emissions Reports: If excess emissions occur due to malfunction, the owner or operator shall notify the Compliance Authority within (1) working day of: the nature, extent, and duration of the excess emissions; the cause of the excess emissions; and the actions taken to correct the problem. In addition, the Department may request a written summary report of the incident. Following the NSPS format (40 CFR 60.7, Subpart A) periods of startup, shutdown, malfunction, shall be monitored, recorded, and reported as excess emissions when emission levels exceed the standards specified in this permit. Within thirty (30) days following each calendar quarter, the permittee shall submit a report on any periods of excess emissions that occurred during the previous calendar quarter to the Compliance Authority. This quarterly report shall follow the format provided in Figure 1 (attached) and summarize periods of excluded NO<sub>X</sub> emissions data.

[Rules 62-4.130, 62-204.800 & 62-210.700(6), F.A.C.; 40 CFR 60.7; and, 0970014-006-AC.]

C.51. The owner or operator required to install a continuous monitoring system (CMS) or monitoring device shall submit an excess emissions and monitoring systems performance report and/or a summary report form [see 40 CFR 60.7(d)] to the Administrator semiannually, except when: more frequent reporting is specifically required by an applicable subpart; or, the CMS data are to be used directly for compliance determination, in which case quarterly reports shall be submitted; or, the Administrator, on a case-by-case basis, determines that more frequent reporting is necessary to accurately assess the compliance status of the source. All reports shall be postmarked by the 30<sup>th</sup> day following the end of each calendar half (or quarter, as appropriate). Written reports of excess emissions shall include the following information:

- (1) The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h), any conversion factor(s) used, and the date and time of commencement and completion of each time period of excess emissions. The process operating time during the reporting period.
- (2) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the affected facility. The nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted.
- (3) The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments.
- (4) When no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report. [40 CFR 60.7(c)(1), (2), (3), and (4)]
- C.52. The summary report form shall contain the information and be in the format shown in Figure 1 (attached) unless otherwise specified by the Administrator. One summary report form shall be submitted for each pollutant monitored at each affected facility.
  - (1) If the total duration of excess emissions for the reporting period is less than 1 percent of the total operating time for the reporting period and CMS downtime for the reporting period is less than 5 percent of the total operating time for the reporting period, only the

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- summary report form shall be submitted and the excess emission report described in 40 CFR 60.7(c) need not be submitted unless requested by the Administrator.
- (2) If the total duration of excess emissions for the reporting period is 1 percent or greater of the total operating time for the reporting period or the total CMS downtime for the reporting period is 5 percent or greater of the total operating time for the reporting period, the summary report form and the excess emission report described in 40 CFR 60.7(c) shall both be submitted.

[40 CFR 60.7(d)(1) and (2)]

{See attached Figure 1: Summary Report-Gaseous and Opacity Excess Emission and Monitoring System Performance}

#### C.53. NSPS Excess Emissions Reporting.

- (1) Notwithstanding the frequency of reporting requirements specified in 40 CFR 60.7(c), an owner or operator who is required by an applicable subpart to submit excess emissions and monitoring systems performance reports (and summary reports) on a quarterly (or more frequent) basis may reduce the frequency of reporting for that standard to semiannual if the following conditions are met:
  - (i) For 1 full year (e.g., 4 quarterly or 12 monthly reporting periods) the affected facility's excess emissions and monitoring systems reports submitted to comply with a standard under this part continually demonstrate that the facility is in compliance with the applicable standard;
  - (ii) The owner or operator continues to comply with all recordkeeping and monitoring requirements specified in 40 CFR 60, Subpart A, and the applicable standard; and,
  - The Administrator does not object to a reduced frequency of reporting for the affected facility, as provided in 40 CFR 60.7(e)(2). The frequency of reporting of excess emissions and monitoring systems performance (and summary) reports may be reduced only after the owner or operator notifies the Administrator in writing of his or her intention to make such a change and the Administrator does not object to the intended change. In deciding whether to approve a reduced frequency of reporting, the Administrator may review information concerning the source's entire previous performance history during the required recordkeeping period prior to the intended change, including performance test results, monitoring data, and evaluations of an owner or operator's conformance with operation and maintenance requirements. Such information may be used by the Administrator to make a judgment about the source's potential for noncompliance in the future. If the Administrator disapproves the owner or operator's request to reduce the frequency of reporting, the Administrator will notify the owner or operator in writing within 45 days after receiving notice of the owner or operator's intention. The notification from the Administrator to the owner or operator will specify the grounds on which the disapproval is based. In the absence of a notice of disapproval within 45 days, approval is automatically granted.
- (3) As soon as monitoring data indicate that the affected facility is not in compliance with any emission limitation or operating parameter specified in the applicable standard, the frequency of reporting shall revert to the frequency specified in the applicable standard, and the owner or operator shall submit an excess emissions and monitoring systems performance report (and summary report, if required) at the next appropriate reporting period following the noncomplying event. After demonstrating compliance with the applicable standard for another full year, the owner or operator may again request approval from the Administrator to reduce the frequency of reporting for that standard as provided for in 40 CFR 60.7(e)(1) & (e)(2).

[40 CFR 60.7(e)(1)]

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C.54. The owner or operator subject to the provisions of 40 CFR 60 shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and, all other information required by 40 CFR 60 recorded in a permanent form suitable for inspection. The file shall be retained for at least 5 (five) years following the date of such measurements, maintenance, reports, and records. These records shall be made available to DEP representatives upon request.

[40 CFR 60.7(f); Rules 62-4.160(14) & 62-213.440(1)(b)2.b., F.A.C.; and, 0970014-006-AC.]

#### C.55. Test Reports.

- (a) 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.
- (b) 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.
- (c) 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 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.
  - Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.

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- 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.

[Rules 62-213.440 and 62-297.310(8), F.A.C.]

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#### Section IV. This Section is the Acid Rain Part.

Operated by: Florida Power Corporation

ORIS code: 8049

#### Subsection A. This subsection addresses Acid Rain, Phase II.

The emissions units listed below are regulated under Acid Rain Part, Phase II.

E.U. ID No.	Description
-007	GE PG 7111EA Combustion Turbine – CT 7
-008	GE PG 7111EA Combustion Turbine – CT 8
-009	GE PG 7111EA Combustion Turbine – CT 9
-010	GE PG 7111EA Combustion Turbine – CT 10
-011	Siemens V84.3 Combustion Turbine – CT 11
-018	GE PG 7121 (7EA) Combustion Turbine - CT P12
-019	GE PG 7121 (7EA) Combustion Turbine – CT P13
-020	GE PG 7121 (7EA) Combustion Turbine – CT P14

1. The Acid Rain Part application submitted for this facility, as approved by the Department, is a part of this permit. The owners and operators of these acid rain units must comply with the standard requirements and special provisions set forth in the application listed below:

a. DEP Form No. 62-210.900(1)(a), dated 07/30/02. [Chapter 62-213, F.A.C. and Rule 62-214.320, F.A.C.]

2. Sulfur dioxide (SO<sub>2</sub>) allowance allocations for each Acid Rain unit:

E.U. ID	EPA	Yearca	2003	2004	2005	2006	2007
No.	I.D.		解逻辑	<b>CANDE</b>			
-007	7	SO2 allowances, under	705*	705*	705*	705*	705*
		Table 2 or 3 of 40 CFR 73					
-008	8	SO2 allowances, under	705*	705*	705*	705*	705*
<u> </u>		Table 2 or 3 of 40 CFR 73					
-009	9	SO2 allowances, under	705*	705*	705*	705*	705*
		Table 2 or 3 of 40 CFR 73					
-010	10	SO2 allowances, under	705*	705*	705*	705*	705*
		Table 2 or 3 of 40 CFR 73					
-011	11	SO2 allowances, under	0*	0*	0*	0*	0*
		Table 2 or 3 of 40 CFR 73					
-018	12	SO2 allowances, under	0*	0*	0*	0*	0*
	i.	Table 2 or 3 of 40 CFR 73					
-019	13	SO2 allowances, under	0*	0.*	0*	0*	0*
		Table 2 or 3 of 40 CFR 73					
-020	14	SO2 allowances, under	0*	0*	0*	0*	0*
		Table 2 or 3 of 40 CFR 73		,		)	

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\*The number of allowances held by an Acid Rain source in a unit account may differ from the number allocated by the USEPA under Table 2 or 3 of 40 CFR 73.

- 3. <u>Emission Allowances</u>. Emissions from sources subject to the Federal Acid Rain Program (Title IV) shall not exceed any allowances that the source lawfully holds under the Federal Acid Rain Program. Allowances shall not be used to demonstrate compliance with a non-Title IV applicable requirement of the Act.
  - a. No permit revision shall be required for increases in emissions that are authorized by allowances acquired pursuant to the Federal Acid Rain Program, provided that such increases do not require a permit revision pursuant to Rule 62-213.440(3), F.A.C.
  - b. No limit shall be placed on the number of allowances held by the source under the Federal Acid Rain program.
- c. Allowances shall be accounted for under the Federal Acid Rain Program. [Rule 62-213.440(1)(c), F.A.C.]
- 4. Comments, notes, and justifications: None.

#### Appendix I-1. List of Insignificant Emissions Units and/or Activities.

FINAL LITTLE V PERMIT NO .: UY/UU14-UUY-AV

Facility ID No.: 0970014

The facilities, emissions units, or pollutant-emitting activities listed in Rule 62-210.300(3)(a), F.A.C., Categorical Exemptions, are exempt from the permitting requirements of Chapters 62-210 and 62-4, F.A.C.; provided, however, that exempt emissions units shall be subject to any applicable emission limiting standards and the emissions from exempt emissions units or activities shall be considered in determining the potential emissions of the facility containing such emissions units. Emissions units and pollutant-emitting activities exempt from permitting under Rule 62-210.300(3)(a), F.A.C., shall not be exempt from the permitting requirements of Chapter 62-213, F.A.C., if they are contained within a Title V source; however, such emissions units and activities shall be considered insignificant for Title V purposes provided they also meet the criteria of Rule 62-213.430(6)(b), F.A.C. No emissions unit shall be entitled to an exemption from permitting under Rule 62.210.300(3)(a), F.A.C., if its emissions, in combination with the emissions of other units and activities at the facility, would cause the facility to emit or have the potential to emit any pollutant in such amount as to make the facility a Title V source.

The below listed emissions units and/or activities are considered insignificant pursuant to Rule 62-213.430(6), F.A.C.

1	Lube Oil System Vents
2	Lube Oil Reservoir Tank
3	Oil Water Separators (2)
4	Hazardous Waste Building
5	Parts Washers/Degreasers
6	Waste Oil Storage Tanks
7	Lube Oil Storage Building
8	Portable Unleaded Gasoline Tank
9	No. 2 Diesel Fuel Tank
10	Sandblaster
11	Brazing, Soldering, Welding
12	Maintenance Shop Lathes
13	Maintenance Shop Hand-held Tools
14	Fire Water Tanks
15	Water Treatment Building Welding Equipment
16	Water Treatment Building Fire Equipment
17	Non-halogenated Solvents
18	55 Gallon Drums - Oily Rags/Water/Dirt
19	Surface Coating and Solvent Cleaning
20	General Purpose Engines

Facility ID No.: 0970014

#### Appendix U-1. List of Unregulated Emissions Units and/or Activities.

<u>Unregulated Emissions Unit(s) and/or Activities</u>. An emissions unit which emits no "emissions-limited pollutant" and which is subject to no unit-specific work practice standard, though it may be subject to regulations applied on a facility-wide basis (e.g., unconfined emissions, odor, general opacity) or to regulations that require only that it be able to prove exemption from unit-specific emissions or work practice standards.

The below listed emissions unit(s) and/or activities are neither 'regulated emissions units' nor 'insignificant emissions units'.

Emissions Unit	Description
-015	Fuel Storage Tanks

FINAL Title V Permit No.: 09/0014-009-AV
Facility ID No.: 0970014

#### **REFERENCED ATTACHMENTS**

#### Phase II Acid Rain Application/Compliance Plan

#### Appendix A-1, Abbreviations, Definitions, Citations, and Identification Numbers

Appendix SS-1, Stack Sampling Facilities (version dated 10/07/96)

Appendix TV-4, Title V Conditions (version dated 2/12/02)

Figure 1: Summary ReportGaseous and Opacity Excess Emission and Monitoring System Performance

Table 1-1, Summary of Air Pollutant Standards and Terms

Table 2-1, Summary of Compliance Requirements

## Table 1-1, Air Pollutant Emission Allowables and Terms

Florida Power Corporation Intercession City Facility FINAL Title V Permit No.: 0970014-009-AV

Emissions Unit & No					
Pollutant Fuel(s) Hrs/Yr					
		/CT			

Allowables per each Combustion Turl	ine Hy		Equivalent
Standards(s)	lbs/hr /CT <sup>1</sup>	TPY	lbs/hr.# /TPY <sup>2</sup> /CT <sup>2</sup>

_	
Regulation(s)	Permit Speci
-	Condition(s)

E:U001-1	to -006 (CT)	P 1; CTP 2; 0	CTP 3, CTP,4, CTP 5, & CFP 6) ** * *** ***	ritir a militar (* 1820). Deservicio
		,		The state of the s
SO <sub>2</sub>	Oil	8760	New No. 2 F.O max. 0.5% S by wt.	364.23 9,571.90
				12 12 mail (2.02)
VE	Oil	8760	20% opacity	
				[1][[2]][[2]][[2]][[2]][[2]][[2]][[2]][
				Jakob Har go profit
				<b>设置的数据数</b>
•				<b>编建位于中央部</b>
				· 建设施工 (4.50年)
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				and the second
				Comment of the state of the

-	
Rule 62-4.070, F.A.C.	A.
Rule 62-296.320(4)(b)1., F.A.C.	A.

- 1 Emissions rates based on 59° F and 15% O<sub>2</sub> at peak load.
- 2 Equivalent to 8760 hours per year at peak load.

#### Table 1-1, Air Pollutant Emission Allowables and Terms

Florida Power Corporation Intercession City Facility

Pollutant Fuel(s) Hrs/Yr

Allowablesipericach Combustion Furb	ine	
Standards(s)	lbs/hr	TPY
	L/CT	

Regulation(s)	Permit Specific
	Condition(s)

FINAL Title V Permit No.: 0970014-009-A'

	7	3390	Ť	10) to the second of the secon	107.00	725.4
NO <sub>X</sub>	Gas		4	25 ppmvd @ 15% O <sub>2</sub> - dry basis		
	Oil	3390	4	42 ppmvd @ 15% O <sub>2</sub> - dry basis	182.00	1233.9
SO <sub>2</sub>	Gas	3390	1	1 grain of S per 100 dscf	2.99	20.2
	Oil	2891	1	New No. 2 F.O max, 0.2% S by wt.	222.00	1283.6
PM/PM <sub>10</sub>	Gas	3390	_		7.50	50.8
	Oil	3390	J	0.01 lb/MMBtu	15.00	101.7
VOC	Gas	3390	]		3.00	20.3
	Oil	3390	1	_	5.00	33.9
CO	Gas	3390	1		21.30	144.4
	Oil	3390	1	25 ppmvd	54.00	366.1
H <sub>2</sub> SO <sub>4</sub>	Gas	3390	]	New No. 2 F.O max. 0.2% S by wt.	0.44	2.9
	Oil	2891	1		18.00	104.0
Fluorines (Fl)	Oil	3390		New No. 2 F.O max. 0.2% S by wt.		
Mercury (Hg)	Oil	3390	1	New No. 2 F.O max. 0.2% S by wt.		
Lead (Pb)	Oil	3390	1	New No. 2 F.O max. 0.2% S by wt.		
Inorganic	Oil	3390	1	New No. 2 F.O max. 0.2% S by wt.		,
Arsenic (As)		1		L		
Beryllium (Be)	Oil	3390	1	New No. 2 F.O max. 0.2% S by wt.		1
VE	Gas or	3390	1	10% - Normal conditions at full load		[
	Oil			20% - Exceptional conditions		

Rule 62-212.400(6), F.A.C.	B.6
Rule 62-212.400(6), F.A.C.	B.6
BACT	B.6
Rule 62-212.400(6), F.A.C.	B.6
BACT	B.6
Rule 62-212.400(6), F.A.C.	B.6
Rule 62-212.400(6), F.A.C.	B.6
BACT	B.6
Rule 62-212.400(6), F.A.C.	B.6

a - Emissions rates based on 59° F and 15% O<sub>2</sub> at peak load.

b - Total TPY for SO<sub>2</sub> assumes 33% capacity factor, 2891 hours/CT/yr at peak load, and fuel with a maximum sulfur content of 0.2%, by weight. Refer to Specific Condition No. B.5 for listed capacity factors vs. sulfur content in fuel oil and specific condition No. B.3 for the fuel consumption based on the permitted TPY of SO<sub>2</sub> emissions.

c - Equivalent to 3390 hours per year at peak load (38.7% capacity factor) and 59° F.

d - Emissions controlled by standards.



Florida Power Corporation Intercession City Facility FINAL Title V Permit No.: 0970014-009-AV

Emissions Unit & Not to the Control				
Pollutant	Fuel(s)	Hrs/Yr /CT		

Allowablesiperleach Combustion Turbii	ies in some	
Standards(s)	lbs/hr /CT	TPY

Regulation(s)	Permit Specific
	Condition(s)

E.U011 (CT 11	) : ::::	
NO <sub>X</sub>	Gas	3390
	Oil	3390
SO <sub>2</sub>	Gas	3390
	Oil	2891
PM/PM <sub>10</sub>	Gas	3390
-	Oil	3390
VOC	Gas	3390
	Oil	3390
CO	Gas	3390
	Oil	3390
H <sub>2</sub> SO <sub>4</sub>	Gas	3390
	Oil	2891
Florins (FI)	Oil	3390
Mercury (Hg)	Oil	3390
Lead (Pb)	Oil	3390
Inorganic	Oil	3390
Arsenic		
Beryllium (Be)	Oil	3390
VE	Gas or	3390
	Oil	<u> </u>

25 ppmvd @ 15% O2- dry basis	149.00	252.55ª
42 ppmvd @ 15% O2- dry basis	334.00	566.13ª
1 grain of S per 100 dscf	4.22	7.15°
New No. 2 F.O max. 0.2% S by wt.	407.00	588.32 b
	7.50	12.71°
0.01 lb/MMBtu	17.00	28.82°
	5.30	8.98°
	9.00	15.26°
	30.90	52.38°
25 ppmvd	79.00	133.91°
New No. 2 F.O max. 0.2% S by wt.	0.64	1.08°
	28.00	40.47 b
New No. 2 F.O max. 0.2% S by wt.		- 3
New No. 2 F.O max, 0.2% S by wt.		d d
New No. 2 F.O max. 0.2% S by wt.		a ·
New No. 2 F.O max. 0.2% S by wt.		. d
New No. 2 F.O max. 0.2% S by wt.		_ a _
10% - Normal conditions at full load		
20% - Exceptional conditions		
2 -4 l. land		

Rule 62-212.400(6), F.A.C.	B.7
Rule 62-212.400(6), F.A.C.	B.7
BACT	B.7
Rule 62-212.400(6), F.A.C.	B.7
BACT	B.7
Rule 62-212.400(6), F.A.C.	B.7
Rule 62-212.400(6), F.A.C.	B.7
BACT	B.7
Rule 62-212.400(6), F.A.C.	B.7

a - Emissions rates based on 59° F and 15% O<sub>2</sub> at peak load.

b-Total TPY for SO<sub>2</sub> assumes 33% capacity factor, 2891 hours/CT/yr at peak load, and fuel with a maximum sulfur content of 0.2%, by weight. Refer to Specific Condition No. B.5 for listed capacity factors vs. sulfur content in fuel oil and specific condition No. B.3 for the fuel consumption based on the permitted TPY of SO<sub>2</sub> emissions.

c - Equivalent to 3390 hours per year at peak load (38.7% capacity factor) and 59° F.

d - Emissions controlled by standards.

## Table 1-1, Air Pollutant Emission Allowables and Terms Florida Power Corporation

Intercession City Facility

Pollutant

Emissions Unit & No. 13 Marsh

Fuel(s)

Hrs/Yr

/CT

Allowablesiper each Combustion	Tilthine Miles	ALCO MANAGEMENT AND A STATE OF THE STATE OF
Standards(s)	lbs/hr	TPY
, ,	/CT	(all 3)

Regulation(s)	Permit Specific
	Condition(s)

FINAL Title V Permit No.: 0970014-009-AV

E.U018 to -0	20 (CT 12,	CT 13, & C	CT 14): 14 5 14 14 14 15 15 15 16 16 16 16 16 16 16 16 16 16 16 16 16	A	141 / 14 P
NO <sub>x</sub>	Gas	3390	9 ppmvd @ 15% O <sub>2</sub> - dry basis	33.00	167.81
	Oil	1000	42 ppmvd @ 15% O2- dry basis	168.00	252.00
SAM/SO <sub>2</sub>	Gas	3390	1 grain of S per 100 dscf	2.35	11.95
	Oil	1000	New No. 2 F.O max. 0.05% S by wt.	49.12	73.68
PM/PM <sub>10</sub>	Gas	3390	Good Combustion	N/A	N/A
	Oil	1000	Good Combustion	N/A	N/A
VOC	Gas	3390	2 ppmvw as methane	2.00	10.17
	Oil	1000	4 ppmvw as methane	5.00	7.5
CO	Gas	3390	20 ppmvd @ 15% O <sub>2</sub> - dry basis	43.00	218.66
	Oil	1000	20 ppmvd @ 15% O2- dry basis	44.00	66.00
VE	Gas	3390	10% - Normal conditions at full load		Ì
	Oil	1000	10% - Normal conditions at full load		

Rule 62-212.400(BACT), F.A.C.	C.10., C.12.
Rule 62-212.400(BACT), F.A.C.	C.10., C.12.
Rule 62-212.400(BACT), F.A.C.	C.10., C.13.
Rule 62-212.400(BACT), F.A.C.	C.10., C.13.
Rule 62-212.400(BACT), F.A.C.	C.10., C.14.
Rule 62-212.400(BACT), F.A.C.	C.10., C.14.
Rule 62-212.400(BACT), F.A.C.	C.10., C.15.
Rule 62-212.400(BACT), F.A.C.	C.10., C.15.
Rule 62-212.400(BACT), F.A.C.	C.10., C.11.
Rule 62-212.400(BACT), F.A.C.	C.10., C.11.
Rule 62-212.400(BACT), F.A.C.	C.10., C.16.
Rule 62-212.400(BACT), F.A.C.	C.10., C.16.

# Table 2-1, Summary of Compliance Requirements Florida Power Corporation Intercession City Facility

FINAL Title V Permit No.: 0970014-009-A\

E.U.ID							
Pollutant Name or parameter	Fuel(s)	EPA/Reference Method	Testing Time or Frequency	Frequency Base Date <sup>2</sup>	Min. Compliance Test Time	CMS	Permit Condition(s)
EU. CTP. 11,2	3,4,15,184	6個問題的共產黨					
SO <sub>2</sub>	Oil	F.O. Analysis	Per Delivery <sup>2</sup>		NA		A.14, 18, 19,20
VE	Oil	EPA Method 9	Annual		1 Hour		A.15
E:U:GI 37,8;9;	103&114						
NO <sub>X</sub>	Gas	EPA Method 20	Annual		3 Hour		B.7
-	Oil	EPA Method 20	Annual				
SO <sub>2</sub>	Gas		Continuous			yes	
	Oil	F.O. Analysis <sup>1</sup>	Per Delivery <sup>2</sup>				
PM/PM <sub>10</sub>	Gas	,					
	Oil	EPA Method 5	Annual				
VOC <sub>3</sub>	Gas	EPA Method 25A	Annual				
	Oil	EPA Method 25A	Annual				
CO	Gas	EPA Method 10	Annual				
	Oil	EPA Method 10	Annual				
H₂SO₄⁴	Gas	EPA Method 8	Annual				
	Oil ·	EPA Method 8	Annual			-	
Fl, Hg, Pb, Be, & As(Inorganic)	Oil	New No.2 F.O max. 0.2% by wt.	Per Delivery <sup>2</sup>	Per Delivery <sup>2</sup>	NA		
VE	Gas	EPA Method 9	Annual		1 Hour		B.4

#### **Best Available Copy**

#### Table 2-1, Summary of Compliance Requirements

Florida Power Corporation Intercession City Facility FINAL Title V Permit No.: 0970014-009-AV

EURDA							
Pollutant Name or parameter	Fuel(s)	EPA/Reference Method	Testing Time or Frequency	Frequency Base Date	Min. Compliance Test Time	CMS	Permit Condition(s)
	(GT/12,(G	This & CT 14)		Dasc Date	1 Test Time		Condition(s)
NO <sub>X</sub>	Gas	EPA Method 7E	Annual		1 Hour	Yes	C.30., C.32.
· ·	Oil	EPA Method 20	Annual		1 Hour	Yes	C.30., C.32.
VOC3	Gas	EPA Method 18,	Annual		1 Hour		C.30., C.32.
•	Oil	25 and/or 25A	Annual		1 Hour		C.30., C.32.
CO	Gas	EPA Method 10	Annual		1 Hour		C.30., C.32.
	Oil	EPA Method 10	Annual		1 Hour		C.30., C.32.
VE	Gas	EPA Method 9	Annual		30 minutes	Yes	C.30., C.32.
	Oil	EPA Method 9	Annual		30 minutes	Yes	C.30., C.32.

<sup>1-</sup> Sulfur content of the fuel oil shall be provided by the supplier, or by the permittee, for every delivery.

<sup>2-</sup> The custom fuel monitoring schedule in condition No. 3 through 8.

<sup>3-</sup> Annual testing is not necessary if compliance with CO allowable is demonstrated annually.

<sup>4-</sup> Fuel Oil analysis using ASTM may be used in lieu of Method 8 if compliance with sulfur content in fuel oil is demonstrated (ref. to cond. B.16.)

#### Appendix H-1, Permit History/ID Number Changes

Permit H	listory (for tracking purposes):					
<u>E.U.</u>			<u>Issue</u>	<b>Expiration</b>	<b>Extended</b>	Comments
ID No.	Description	Permit No.	<u>Date</u>	<u>Date</u>	<u>Date</u>	
-001 to	Initial Title V Permit	0970014-001-AV	12/31/97	12/31/02		Title V Permit incorporates PSD-FL-180
-017						issued 8/17/92 (CT7-CT11) and AO 49-
						176549 (operation of CT1 to CT6)
-007 to	Addition of Inlet Foggers to	0970014-002-AC	5/17/99	12/31/99		Permit Modification
-010	combustion Turbines C7 to CT11	0770014-002-NC	3/1///	12/31/77		Territ Modification
-010	compasion raiones er to erri					
-018 to	Construction of three new simple	0970014-003-AC	12/09/99	7/01/01		Turbines construction
-020	cycle CTs, GE Model PG7121EA	PSD-FL-268				
	(Units CT12 through CT14)					
	,					
-001 to	Title V Revision to Include Inlet	0970014-004-AV	6/13/00	12/31/02		Permit Revision
-017	Foggers, NO <sub>X</sub> CEMs, and Minor					
	Administrative Corrections.					•
	•					
	Title V Revision to Incorporate	0970014-005-AC				Withdrawn
	Units PT12 through PT14					
010.	TI 's CONTAIL I CONTAINS	0070014 006 40	1 /20 /00	10/21/00		D. Carlotto de la Decom
-018 to	Units CT12 through CT14 NOx-	0970014-006-AC	1/30/02	12/31/02		Permit Modification to revise BACT
-020	BACT modification	PSD-FL-268A				determination NOx standard
All	Title V Renewal	0970014-007-AV	12/30/02	12/31/07		Incorporates all previous revisions and
All	The Vichewal	0970014-007-AV	12/30/02	12/31/07		modifications since Permit 0970014-004-AV
		0970014-008-AC				Number not used
All	Title V Revision to update ASTM	0970014 <b>-</b> 009-AV		12/31/07		Revise Title V Permit Conditions
	Method D1552					

Attachment IC-EU1-IV3
Alternative Methods of Operation

06/22/07 073-89506

## ATTACHMENT IC-EU1-IV3 ALTERNATIVE METHODS OF OPERATION

The facility consists of 14 combustion turbines. Six combustion turbines (CTP1 through CTP6; EU1) are rated at 56.4 MW and operate on distillate oil and may operate 8,760 hours per year continuously. Four combustion turbines (CT 7, CT 8, CT 9, and CT 10; EU2), each rated at 96.3 megawatts (MW) (GE PG7111EA) and one combustion turbine (CT 11; EU3) rated at 171 MW (Siemens V84.3) were limited in the air construction permit to an average maximum capacity factor of 38.7% (3,390 hours per year operating time). The total hours of operation for CT 7, CT 8, CT 9, CT 10, and CT 11 (EU 2 and EU 3) were not to exceed 16,950 unit hours per year (5 units times 3,390 hours/yr/unit). In addition, the capacity factors for these turbines were limited to 33% based on a weighted 12 month rolling maximum sulfur content of 0.2%. However, if the weighted rolling average sulfur content of the fuel oil is less than 0.2%, the capacity factor may be adjusted using the following table:

Percent Average Sulfur Content	Percent Capacity Factor
0.2 - 0.195	33.0
0.19 - 0.185	34.4
0.18 - 0.175	35.8
0.17 - 0.165	37.2
0.16 - or less	38.7

The four combustion turbines (EU 2) were also limited in fuel oil consumption on a per unit basis, per aggregate units, or prorated consumption based on the table as described above. Similar limits were placed on the other combustion turbine (Siemens V84.3).

Therefore, any combination of the five combustion turbines (EU2 and EU3) may operate for up to 8,760 hours per year provided that both the hourly and annual emission limitations, aggregate annual capacity factors, and aggregate fuel oil consumption limits are met.

The three combustion turbines (EU 4) are limited to a total of 10,170 hours during any consecutive 12 months. Each turbine is limited to no more than 1,000 turbine operating hours of oil firing during any consecutive 12 months. In addition, the group of 3 turbines is limited to no more than 2,500 turbine operating hours of oil firing during any consecutive 12 months. Maximum potential and allowable

Section [2] of [4]

#### III. EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Application - For Title V air operation permitting only, emissions units are classified as regulated, unregulated, or insignificant. If this is an application for Title V air operation permit, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each regulated and unregulated emissions unit addressed in this application for air permit. Some of the subsections comprising the Emissions Unit Information Section of the form are optional for unregulated emissions units. Each such subsection is appropriately marked. Insignificant emissions units are required to be listed at Section II, Subsection C.

Air Construction Permit or FESOP Application - For air construction permitting or federally enforceable state air operation permitting, emissions units are classified as either subject to air permitting or exempt from air permitting. The concept of an "unregulated emissions unit" does not apply. If this is an application for air construction permit or FESOP, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit subject to air permitting addressed in this application for air permit. Emissions units exempt from air permitting are required to be listed at Section II, Subsection C.

Air Construction Permit and Revised/Renewal Title V Air Operation Permit Application – Where this application is used to apply for both an air construction permit and a revised/renewal Title V air operation permit, each emissions unit is classified as either subject to air permitting or exempt from air permitting for air construction permitting purposes and as regulated, unregulated, or insignificant for Title V air operation permitting purposes. The air construction permitting classification must be used to complete the Emissions Unit Information Section of this application for air permit. A separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit subject to air permitting addressed in this application for air permit. Emissions units exempt from air construction permitting and insignificant emissions units are required to be listed at Section II, Subsection C.

If submitting the application form in hard copy, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application must be indicated in the space provided at the top of each page.

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Section [2]

of [4]

#### A. GENERAL EMISSIONS UNIT INFORMATION

#### <u>Title V Air Operation Permit Emissions Unit Classification</u>

1.	Regulated or Unregulated Emissions Unit? (Check one, if applying for an initial, revised or renewal Title V air operation permit. Skip this item if applying for an air construction permit or FESOP only.)							
	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.							
En	nissions Unit	Description an	d Status					
1.	<ol> <li>Type of Emissions Unit Addressed in this Section: (Check one)</li> <li>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).</li> <li>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.</li> <li>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.</li> </ol>							
	2. Description of Emissions Unit Addressed in this Section: Combustion Turbine Units CT 7, CT 8, CT 9, & CT 10							
3.	Emissions U	nit Identification	ı Numbei	: 007, 008,	009 and 010			
4.	Emissions Unit Status Code: A	5. Commenc Constructi Date:	on	Initial Startup Date: gust 1993	7. Emissions Unit Major Group SIC Code: 49	8. Acid Rain Unit?  X Yes  No		
9.	9. Package Unit: Manufacturer: General Electric Model Number: PG7111(EA) units							
10	10. Generator Nameplate Rating: 96 MW							
C7 Th	10. Generator Nameplate Rating: 96 MW  11. Emissions Unit Comment: CTs 7 through 10 have generator ratings of 96.3 megawatts/CT. The combustion turbines exhaust through individual stacks. Startup dates for each CT are as follows: CT 7 - August 1993, CT 8 - July 1993, CT 9 - September 1993 and CT 10 - July 1993.							

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Section [2]

of [4]

#### **Emissions Unit Control Equipment**

1. Control Equipment/Method(s) Description:

NO<sub>x</sub> and SO<sub>2</sub> emissions are controlled with water injection and burning No. 2 low sulfur fuel oil.

2. Control Device or Method Code(s): 28

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## EMISSIONS UNIT INFORMATION Section [2] of [4]

#### **B. EMISSIONS UNIT CAPACITY INFORMATION**

(Optional for unregulated emissions units.)

#### **Emissions Unit Operating Capacity and Schedule**

- 1. Maximum Process or Throughput Rate:
- 2. Maximum Production Rate:
- 3. Maximum Heat Input Rate: 1,144 million Btu/hr/CT
- 4. Maximum Incineration Rate: pounds/hr

tons/day

5. Requested Maximum Operating Schedule:

24 hours/day

7 days/week

52 weeks/year

3,390 hours/year/CT

6. Operating Capacity/Schedule Comment:

The maximum heat input rate of 1,144 MMBtu/hr is based on oil-firing (LHV at 20° F) during peak loading for one combustion turbine (CT). The corresponding rate during natural gas-firing is 1,159 MMBtu/hr.

The four turbines are permitted to operate up to the equivalent of 3,390 hr/CT/yr at peak or other lesser loads and 38.7 percent capacity factor. The capacity factor shall be limited to 33% based on weighted 12-month rolling average sulfur content not to exceed 0.2%. If sulfur content is less than 0.2%, the capacity factor can be adjusted up to 38.7%. A single turbine can operate at more than 3,390 hours/year.

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## EMISSIONS UNIT INFORMATION Section [2] of [4]

## C. EMISSION POINT (STACK/VENT) INFORMATION (Optional for unregulated emissions units.)

#### **Emission Point Description and Type**

1. Identification of Point on Plot Pla	n or 2. Emission Point	Type Code:					
Flow Diagram: Attachment IC-FI	I-C2 1						
3. Descriptions of Emission Points C	Comprising this Emissions Unit	for VE Tracking:					
Combustion turbines' gases exhau	Combustion turbines' gases exhaust through a single stack per turbine unit.						
4. ID Numbers or Descriptions of En	mission Units with this Emissio	n Point in Common:					
4. ID Numbers of Descriptions of En	mission omits with this Emissio	ii roint in Common.					
	ack Height:	7. Exit Diameter:					
	feet	13.8 feet					
<u> </u>	ctual Volumetric Flow Rate:	10. Water Vapor:					
	,551,317 acfm	%					
11. Maximum Dry Standard Flow Ra	l l	12. Nonstack Emission Point Height:					
Dscfm	feet						
13. Emission Point UTM Coordinates		14. Emission Point Latitude/Longitude					
Zone: 17 East (km): 446.3	,	Latitude (DD/MM/SS)					
North (km): 3,126	Longitude (DD/	Longitude (DD/MM/SS)					
15. Emission Point Comment:							
Exit temperature and flow rate given	for a single CT at an ambient ter	mperature of 59° F (oil-					
firing)							
	·						
	,						

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#### D. SEGMENT (PROCESS/FUEL) INFORMATION

#### Segment Description and Rate: Segment 1 of 2

1.	<ol> <li>Segment Description (Process/Fuel Type):</li> <li>Internal Combustion Engines - Electric Generation - Distillate Oil (Diesel) - Turbine</li> </ol>							
	Internal Companies Lieure Concration - Distinate on (Diesel) - Latonic							
2.	2. Source Classification Code (SCC): 3. SCC Units:							
	2-01-001-01		Thousand Gallons Burned					
4.	Maximum Hourly Rate:	5. Maximum	Annual Rate:	6. Estimated Annual Activity				
	8.698	26,530		Factor:				
7.	Maximum % Sulfur:	8. Maximum	% Ash:	9. Million Btu per SCC Unit:				
	0.2	0.1		132				

#### 10. Segment Comment:

Million BTU per SCC Unit: 131.52

Max. Hourly Rate per CT based on peak load max and heat input at 20°F = 1,144 MMBtu/hr/

 $131.52 \text{ MMBtu} = 8.698 \times 10^3 \text{ gal/hr}$ 

See Permit No. 0970014-009-AV, Condition III-B.1.

Max. Annual Rate per CT based on 38.7% capacity factor for peak load at  $59^{\circ}F = 7,826$  gal/hr x 3,390 hr/yr =  $26,530 \times 10^{3}$  gal/yr

See Permit No. 0970014-009-AV, Condition III-B.3(a).

Maximum sulfur content of 0.2% or less, by weight, shall be fired in these turbines at all times.

#### Segment Description and Rate: Segment 2 of 2

Segment Description (Process/Fuel Type):     Internal Combustion Engines – Electric Generation – Natural Gas – Turbine							
2. Source Classification Code (SCC):  2-01-002-01  3. SCC Units:  Million Cubic Feet							
4. Maximum Hourly Rate: 1.159	5. Maximum A 3,553	Annual Rate:	6.	Estimated Annual Activity Factor:			
7. Maximum % Sulfur:	um % Sulfur:  8. Maximum % Ash:  9. Million Btu per 1,000			Million Btu per SCC Unit: 1,000			

#### 10. Segment Comment:

Max. Hourly Rate per CT based on peak load max and heat input at 20°F = 1,159 MMBtu/hr = 1.159 MMcf/hr

See permit No. 0970014-009-AV, Condition III-B.1.

Max. Annual rate per CT based on 38.7% cap. factor for peak load at  $59^{\circ}F = 1,048$  MMBtu/hr x 3,390 hr/yr = 3,552.7 MMcf/yr

See Permit No. 0970014-009-AV, Condition III-B.1, B.3 and B.4.

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#### D. SEGMENT (PROCESS/FUEL) INFORMATION (CONTINUED)

Segment Description and Rate: Segment \_ of \_

1. Segment Description (Process/Fuel Type):				
2. Source Classification Cod	e (SCC):	3. SCC Units:		
4. Maximum Hourly Rate:	5. Maximum	Annual Rate:	6.	Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum	% Ash:	9.	Million Btu per SCC Unit:
10. Segment Comment:			'	
Segment Description and Ra	nte: Segment	of		
1. Segment Description (Pro-				<del></del> .
2 Sauras Classification Cod	- (CCC)-	2 CCC II-it-		
2. Source Classification Cod	2. Source Classification Code (SCC):  3. SCC Units:			
4. Maximum Hourly Rate:	5. Maximum Annual Rate: 6. Estimated Annual Activ		•	
7. Maximum % Sulfur:	8. Maximum % Ash:  9. Million Btu per SCC Unit:			
10. Segment Comment:	1			

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# EMISSIONS UNIT INFORMATION Section [2] of [4]

#### E. EMISSIONS UNIT POLLUTANTS

#### List of Pollutants Emitted by Emissions Unit

1 7 11 7 1 1	0.0		4 70 11
1. Pollutant Emitted	2. Primary Control	3. Secondary Control	4. Pollutant
	Device Code	Device Code	Regulatory Code
SO <sub>2</sub>			EL
NO <sub>x</sub>	028		EL
PM			EL
PM <sub>10</sub>			EL
CO			EL
VOC			EL
SAM		_	EL
			_
-			
			_
		·	
			·

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# F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: 2. Total Percent Efficiency of Control:  $SO_2$ 3. Potential Emissions: 4. Synthetically Limited? 222 lb/hour 1,283.6 tons/year ☐ Yes X No 5. Range of Estimated Fugitive Emissions (as applicable): tons/year 6. Emission Factor: maximum 0.2% Sulfur by weight 7. Emissions Method Code: Reference: Permit No. 0970014-009-AV, Condition III.B.3 8.a. Baseline Actual Emissions (if required): 8.b. Baseline 24-month Period: tons/year From: 9.a. Projected Actual Emissions (if required): 9.b. Projected Monitoring Period: tons/year 5 years 10 years 10. Calculation of Emissions: No. 2 Fuel oil at 59° F. Annual emissions based on inlet temperature of 59°F and 2,891 hours/CT/yr at peak load, (33% capacity factor) and fuel with a maximum sulfur content of 0.2% by weight. Annual emission for single CT is 321 tons/year; four CTs have a limit of 1,283.6 TPY per Permit No. 0970014-009-AV, Condition III.B.7 and AC 49-203114/PSD-FL-180(A). 11. Potential, Fugitive, and Actual Emissions Comment:

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## POLLUTANT DETAIL INFORMATION [1] of [7]

# F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions 1 o	f <u>2</u>			
Basis for Allowable Emissions Code:     Other	2. Future Effective Date of Allowable Emissions:			
3. Allowable Emissions and Units: 0.2 % max sulfur	4. Equivalent Allowable Emissions: 222 lb/hour 1,283.6 tons/year			
5. Method of Compliance: Fuel oil Analysis				
6. Allowable Emissions Comment (Description of Operating Method): AC Permit Limit – oil-firing at 59° F. Annual emissions for a single CT is 321 tons/year; four CTs have a limit of 1,283.6 TPY. Permit No. 0970014-009-AV, Condition III-B.5., III-B.25. and III-B.26.				
Allowable Emissions 2 o	f <u>2</u>			
Basis for Allowable Emissions Code:     Other	2. Future Effective Date of Allowable Emissions:			
3. Allowable Emissions and Units: 1 grain s/100 cf	4. Equivalent Allowable Emissions: 2.99 lb/hour 20.3 tons/year			
5. Method of Compliance: Fuel Analysis				
6. Allowable Emissions Comment (Description of Operating Method): Natural gas firing per CT at 59° F. Annual emissions based on 5.07 tons/year; four CTs have a limit of 20.3 TPY. Permit No. 0970014-009-AV, Condition III-B.7.				
Allowable Emissions	of			
1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:			
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions:  lb/hour tons/year			
5. Method of Compliance:				
6. Allowable Emissions Comment (Description of Operating Method):				

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# F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

#### Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: NO <sub>x</sub>	2. Total Percent 80%	Efficiency of Control:
3. Potential Emissions:	4.	Synthetically Limited?
· ·	tons/year	Yes X No
5. Range of Estimated Fugitive Emissions (as tons/year	applicable):	
6. Emission Factor: 42 ppmvd @ 15% O <sub>2</sub>		7. Emissions Method Code:
Reference: Permit No. 0970014-009-AV, Condit		0
8.a. Baseline Actual Emissions (if required):	8.b. Baseline 24-	month Period:
tons/year	From:	To:
9.a. Projected Actual Emissions (if required):	9.b. Projected M	onitoring Period:
tons/year		] 10 years
10. Calculation of Emissions:  No. 2 Fuel oil at 59° F.  Annual emissions based on inlet temperature of 59° F and 38.7% capacity factor.  Annual emission for single CT is 308.5 tpy; four CTs have a limit of 1,233.96 TPY per Permit No. 0970014-009-AV, Condition III.B.7 and AC 49-203114/PSD-FL-180(A).		
11. Potential, Fugitive, and Actual Emissions C	omment:	

## POLLUTANT DETAIL INFORMATION Page [2] of [7]

# F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

#### Allowable Emissions 1 of 2

Basis for Allowable Emissions Code:     Other	Future Effective Date of Allowable Emissions:			
3. Allowable Emissions and Units: 42 ppmvd @ 15% O <sub>2</sub> – dry basis	4. Equivalent Allowable Emissions:  182 lb/hour 1,233.96 tons/year			
5. Method of Compliance: Annual Compliance Test – EPA Method 20 or 7E				
6. Allowable Emissions Comment (Description of Operating Method): Oil-firing at 59° F. No applicable annual emission limit for a single CT; four CTs have a limit of 1,233.96 TPY. Annual emission based on 308.5 TPY/CT. Permit No. 0970014-004-AV, Conditions III.B.19, III.B.23 and III.B.24.				

#### Allowable Emissions Allowable Emissions 2 of 2

Allowable Emissions 2 0	1 4		
<ol> <li>Basis for Allowable Emissions Code: Other</li> </ol>	2. Future Effective Date of Allowable Emissions:		
<ol> <li>Allowable Emissions and Units:</li> <li>25 ppmvd @ 15% O<sub>2</sub> - dry basis</li> </ol>	4. Equivalent Allowable Emissions: 107 lb/hour 725.5 tons/year		
5. Method of Compliance: Annual Compliance Test, EPA Method 20 or 7E			
6. Allowable Emissions Comment (Description of Operating Method): Natural gas firing per CT at 59° F. No applicable annual emission limit for a single CT; four CTs have a limit of 725.5 TPY. Annual emissions based on 181.4 TPY/CT. Permit No. 0970014-004-AV, Conditions III.B.19, III.B.23 and III.B.24.			

#### Allowable Emissions Allowable Emissions \_\_ of \_\_\_

Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions:
	lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description	on of Operating Method):

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# F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

#### Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: PM	2. Total Percen	t Efficiency	of Control:
3. Potential Emissions: 15 lb/hour 101.70	0 tons/year	. Synthetic	ally Limited?  X No
5. Range of Estimated Fugitive Emissions (as applicable): tons/year			
6. Emission Factor: 0.01 lb/MMBtu Reference: Permit No. 0970014-009-AV Condit	ion III.B.7	7.	Emissions Method Code: 0
8.a. Baseline Actual Emissions (if required):	8.b. Baseline 24	-month Per	iod:
tons/year	From:	To:	
9.a. Projected Actual Emissions (if required):	9.b. Projected M	Monitoring F	Period:
tons/year	5 years	10 years	
10. Calculation of Emissions:  No. 2 Fuel oil at 59° F.  Maximum hourly emissions based on ambient temperature of 59° F.  Annual emissions based on inlet temperature of 59° F and 38.7% capacity factor.  Annual emission for single CT is 25.4 TPY; four CTs have a limit of 101.70 TPY per Permit No. 0970014-009-AV, Condition III.B.7 and AC 49-203114/PSD-FL-180(A).			
11. Potential, Fugitive, and Actual Emissions C	omment:	·	

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## F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable 1	Emissions	Allowable	<b>Emissions</b>	1	of	2

<ol> <li>Basis for Allowable Emissions Code: Other</li> </ol>		Future Effective Date o Emissions:	f Allowable
3. Allowable Emissions and Units:	4. ]	Equivalent Allowable E	
0.01 lb/MMBtu		15 lb/hour	101.7 tons/year
5. Method of Compliance:			
Annual Compliance Test, EPA Method 9			
•			
6. Allowable Emissions Comment (Description	n of O	perating Method):	
Oil-firing at 59° F.			
No applicable annual emission limit for a single C	CT; TF	PY based on 25.4 TPY/C	CT.
four CTs have a limit of 101.7 TPY. If VE < 10	10% O	pacity, PM compliance	test (EPA Method
5) not required. Annual emissions based on a 38.7	.7% ca	pacity factor.	
Permit No. 0970014-009-AV, Conditions III.B.15	and I	II.B.17.	

#### Allowable Emissions 2 of 2

Basis for Allowable Emissions Code:     Other	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions:
7.5 lb/hr	7.5 lb/hour 50.85 tons/year

5. Method of Compliance:

VE; EPA Method 9

6. Allowable Emissions Comment (Description of Operating Method):

Natural gas firing at  $59^{\circ}$ F, If VE < 10%, stack test not required. No applicable annual emission limit for a single CT; four CTs have a limit of 50.85 TPY. Annual emissions based on a 38.7% capacity factor.

#### Allowable Emissions Allowable Emissions \_\_ of \_\_\_

Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:	
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year	
5. Method of Compliance:		
6. Allowable Emissions Comment (Description of Operating Method):		

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# F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

#### Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if

applying for an air operation permit.

1. Pollutant Emitted: PM <sub>10</sub>	2. Total Perc	ent Efficie	ency of Control:
3. Potential Emissions: 15 lb/hour 101.	l •		netically Limited?
5. Range of Estimated Fugitive Emissions (as tons/year	s applicable):		
6. Emission Factor: 0.01 lb/MMBtu  Reference: Permit No. 0970014-009-AV, Condit	ion III R 7		7. Emissions Method Code: 0
	r·		
8.a. Baseline Actual Emissions (if required):	8.b. Baseline	24-month	Period:
tons/year	From:	7	Го:
9.a. Projected Actual Emissions (if required):	9.b. Projected	d Monitori	ng Period:
tons/year	5 years	☐ 10 ye	ears
10. Calculation of Emissions:  No. 2 Fuel oil at 59°F.  Hourly emissions (lb/hr) based on inlet temp. of 59° F.  Annual emissions based on inlet temperature of 59° F and 38.7% capacity factor.  Annual emissions for single CT is 25.4 TPY; four CTs have a limit of 101.70 TPY per Permit No. 0970014-009-AV, Condition III.B.7 and AC 49-203114/PSD-FL-180(A).			
11. Potential, Fugitive, and Actual Emissions C	omment:		

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## F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

#### Allowable Emissions 1 of 2

<ol> <li>Basis for Allowable Emissions Code: Other</li> </ol>	2. Future Effective Date of Allowable Emissions:	
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions:	
0.01 lb/MMBtu	15 lb/hour 101.7 tons/year	
5. Method of Compliance: Annual Compliance Test, EPA Method 9		
6. Allowable Emissions Comment (Description of Operating Method): Oil-firing at 59° F. TPY based on 25.4 TPY/CT. No applicable annual emission limit for a single CT; four CTs have a limit of 101.7 TPY. Annual emissions based on a 38.7% capacity factor.		

If VE < 10% Opacity, PM compliance test (EPA Method 5) not required. Permit No. 0970014-

#### Allowable Emissions 2 of 2

009-AV, Conditions III.B.15 and III.B.17.

Basis for Allowable Emissions Code:     Other	2. Future Effective Date of Allowable Emissions:	
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions:	
7.5 lb/hr	7.5 lb/hour 50.85 tons/year	
5. Method of Compliance: VE; EPA Method 9	,	
6. Allowable Emissions Comment (Description of Operating Method): Natural gas firing at 59° F. TPY based on 12.71 TPY/CT.  If VE < 10% Opacity, PM compliance test (EPA Method 5) not required per Permit No. 0970014-009-AV, Conditions III.B.15 and III.B.17. No applicable annual emission limit for a single CT; four CTs have a limit of 50.85 TPY. Annual emissions based on a 38.7% capacity factor.		

#### Allowable Emissions \_\_ of \_\_\_

1.	Basis for Allowable Emissions Code:	2.	Future Effective Date Emissions:	of Allowable
3.	Allowable Emissions and Units:	4.	Equivalent Allowable lb/hour	Emissions: tons/year
5.	Method of Compliance:	1	·	
6.	Allowable Emissions Comment (Description	of	Operating Method):	

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# F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: 2. Total Percent Efficiency of Control: CO 3. Potential Emissions: 4. Synthetically Limited? 54 lb/hour 366.12 tons/year □ Yes x No 5. Range of Estimated Fugitive Emissions (as applicable): tons/year 6. Emission Factor: 25 ppmvd 7. Emissions Method Code: Reference: Permit No. 0970014-009-AV, Condition III.B.7. 8.a. Baseline Actual Emissions (if required): 8.b. Baseline 24-month Period: tons/year From: To: 9.a. Projected Actual Emissions (if required): 9.b. Projected Monitoring Period: tons/year 5 years 10 years 10. Calculation of Emissions: No. 2 Fuel oil at 59° F. Annual emissions based on inlet temperature of 59° F and 38.7% capacity factor. Annual emissions for single CT is 91.5 TPY; four CTs have a limit of 366.12 TPY per Permit No. 0970014-009-AV, Condition III.B.7 and AC 49-203114/PSD-FL-180(A). 11. Potential, Fugitive, and Actual Emissions Comment:

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## POLLUTANT DETAIL INFORMATION Page [5] of [7]

## F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

#### Allowable Emissions Allowable Emissions 1 of 2

2. Future Effective Date of Allowable Emissions:
4. Equivalent Allowable Emissions:
54 lb/hour 366.12 tons/year
n of Operating Method):
CT; four CTs have a limit of 366.12 TPY.

#### Allowable Emissions 2 of 2

<ol> <li>Basis for Allowable Emissions Code: Other</li> </ol>	2. Future Effective Date of Allowable Emissions:	
3. Allowable Emissions and Units: 21.3 lb/hr	4. Equivalent Allowable Emissions: 21.3 lb/hour 144.41 tons/year	
5. Method of Compliance: Annual Compliance Test, EPA Method 10		
6. Allowable Emissions Comment (Description of Operating Method): Natural gas firing at 59° F. TPY based on 36.1 TPY/CT. No applicable annual emission limit for a single CT; four CTs have a limit of 144.41 TPY. Permit No. 0970014-009-AV, Condition III.B.18.		

#### Allowable Emissions \_\_\_ of \_\_\_

1.	Basis for Allowable Emissions Code:	2.	Future Effective Date Emissions:	of Allowable
3.	Allowable Emissions and Units:	4.	Equivalent Allowable lb/hour	Emissions: tons/year
5.	Method of Compliance:			
6.	Allowable Emissions Comment (Description	of (	Operating Method):	

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# F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

#### Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: VOC	2. Total Perce	ent Efficiency of Control:	
3. Potential Emissions: 5 lb/hour 33.9	tons/year	4. Synthetically Limited?  ☐ Yes x No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor: 5 lb/hr  Reference: Permit Limit 0970014-009-AV, Cond	lition III.B.7	7. Emissions Method Code:	
		<u> </u>	
8.a. Baseline Actual Emissions (if required): tons/year	From:	24-month Period: To:	
9.a. Projected Actual Emissions (if required): tons/year	9.b. Projected  5 years	Monitoring Period:	
No. 2 Fuel oil at 59° F.  Hourly emissions (lb/hr) based on inlet temperature of 59° F. Annual emissions based on inlet temperature of 59° F and 38.7% capacity factor.  8.5 TPY/CT is Equivalent TPY for single CT; four CTs have a limit of 33.9 TPY.			
11. Potential, Fugitive, and Actual Emissions Comment:			

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## EMISSIONS UNIT INFORMATION Section [2] of [4]

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# F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

#### Allowable Emissions 1 of 2

<ol> <li>Basis for Allowable Emissions Code: Other</li> </ol>	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions:
5 lb/hr	5 lb/hour 33.9 tons/year
5. Method of Compliance: Annual Compliance Test, EPA Method 25A	
6. Allowable Emissions Comment (Description Oil-firing at 59° F. TPY based on 8.5 TPY/CT. If applicable annual emission limit for a single CT; Permit No. 0970014-009-AV, Condition III.B.12.	CO limits met, VOC test not required. No

#### Allowable Emissions 2 of 2

1.	Basis for Allowable Emissions Code: Other	2.	Future Effective Date Emissions:	of Allowable
3.	Allowable Emissions and Units:	4.	Equivalent Allowable	Emissions:
			3 lb/hour	20.34 tons/year
5.	Method of Compliance:			
	Annual Compliance Test, EPA Method 25A			
6.	Allowable Emissions Comment (Description	of (	Operating Method):	
Na	tural gas firing at 59° F. TPY based on 5.1 TPY	Y/C1	Γ.	
No	No applicable annual emission limit for a single CT; four CTs have a limit of 20.34 TPY. If			
coı	compliance with the CO allowables in this permit is demonstrated, testing for VOCs is not			r VOCs is not
rec	quired.			

Permit No. 0970014-009-AV, Condition III.B.12.

#### Allowable Emissions Allowable Emissions of \_\_\_

1.	Basis for Allowable Emissions Code:	2.	Future Effective D Emissions:	ate of Allowable
3.	Allowable Emissions and Units:	4.	Equivalent Allowa lb/hour	ble Emissions: tons/year
5.	Method of Compliance:			
6.	Allowable Emissions Comment (Description	n of (	Operating Method):	

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## POLLUTANT DETAIL INFORMATION Page [7] of [7]

# F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

#### Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: 2. Total Percent Efficiency of Control: SAM 3. Potential Emissions: 4. Synthetically Limited? 18 lb/hour 122.04 tons/year ☐ Yes x No 5. Range of Estimated Fugitive Emissions (as applicable): tons/year 6. Emission Factor: maximum 0.2% Sulfur by weight 7. Emissions Method Code: Reference: Permit Limit 0970014-009-AV, Condition III.B.3. and B.7. 8.a. Baseline Actual Emissions (if required): 8.b. Baseline 24-month Period: tons/year From: To: 9.a. Projected Actual Emissions (if required): 9.b. Projected Monitoring Period: tons/year 5 years 10 years 10. Calculation of Emissions: No. 2 Fuel oil at 59° F. Permit Limit for oil firing per CT. Annual emissions based on inlet temperature of 59° F and 33% capacity factor. Four CTs have a limit of 122.04 TPY per Permit No. 0970014-009-AV, Condition III.B.7 and AC 49-203114/PSD-FL-180(A). 11. Potential, Fugitive, and Actual Emissions Comment:

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# F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

## Allowable Emissions 1 of 2

Other	Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions:
0.2% Sulfur Oil	18 lb/hour 122.04 tons/year
5. Method of Compliance: Annual Compliance Test, EPA Method 8	
6. Allowable Emissions Comment (Description oil-firing at 59° F. No applicable annual emiss 122.04 TPY. Annual emissions based on 30.5 Tl capacity factor. If fuel oil sulfur limits met, SA	ion limit for a single CT; four CTs have a limit of PY/CT, inlet temperature of 59° F and 33%

#### Allowable Emissions 2 of 2

Permit No. 0970014-009-AV, Condition III.B.16.

<del></del>
2. Future Effective Date of Allowable Emissions:
4. Equivalent Allowable Emissions:  0.44 lb/hour  2.98 tons/year
n of Operating Method): sed on 0.75 TPY/CT, 33% capacity factor. No four CTs have a limit of 2.98 TPY. If fuel oil

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## EMISSIONS UNIT INFORMATION Section [2] of [4]

## POLLUTANT DETAIL INFORMATION Page [7] of [7]

Allowable Emissions	Allowable Emission	is	of

1.	Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:			
3.	Allowable Emissions and Units:	4.	Equivalent Allowable E	Emissions:	
			lb/hour	tons/year	
5.	Method of Compliance:				
6.	Allowable Emissions Comment (Description	of (	Operating Method):		
				·	

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#### **EMISSIONS UNIT INFORMATION**

Section [2]

of [4]

#### G. VISIBLE EMISSIONS INFORMATION

Complete if this emissions unit is or would be subject to a unit-specific visible emissions limitation.

<u>Visible Emissions Limitation:</u> Visible Emissions Limitation <u>1</u> of <u>2</u>

1. Visible Emissions Subtype:	2. Basis for Allowable Opacity:
VE10	Rule X Other
Allowable Opacity:     Normal Conditions:     Maximum Period of Excess Opacity Allowers	sceptional Conditions: 20 % min/hour
4. Method of Compliance: Annual Compliance Test, EPA Method 9	
5. Visible Emissions Comment: Visible emission limit under normal conditions a for other loads. No VE test < 400 hr/yr except for period of one y 297.310(7)(a)4. and 8., F.A.C.]	
Visible Emissions Limitation: Visible Emissi	ions Limitation 2 of 2
Visible Emissions Subtype:     VE99	2. Basis for Allowable Opacity:  x Rule  Other
3. Allowable Opacity: Normal Conditions: % Ex Maximum Period of Excess Opacity Allow	cceptional Conditions: 100 % ed: 60 min/hour
4. Method of Compliance: Best Operational Practices	
5. Visible Emissions Comment: Rule 62-210.700(1), F.A.C. Maximum period of for start up, shutdown and malfunction.	excess opacity allowed 2 hours in any 24 hours

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## EMISSIONS UNIT INFORMATION

Section [2]

of [4]

#### H. CONTINUOUS MONITOR INFORMATION

Complete if this emissions unit is or would be subject to continuous monitoring.

Continuous Monitoring System: Continuous Monitor 1 of 2

Parameter Code:     EM	2. Pollutant(s): NO <sub>x</sub>
3. CMS Requirement:	Rule Other
4. Monitor Information  Manufacturer:	
Model Number:	Serial Number:
5. Installation Date: 19 August, 1993	6. Performance Specification Test Date: 19 August, 1993
7. Continuous Monitor Comment: CEM data may be used in lieu of water-to-fuel r Above dates for CT 7. Dates for other CTs: CT 8 - 7/13/93 CT 9 - 9/2/93 CT 10 - 7/19/93	atio monitoring.
[40 CFR 60.334(a)]	

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## EMISSIONS UNIT INFORMATION

Section [2]

of [4]

#### H. CONTINUOUS MONITOR INFORMATION (CONTINUED)

Complete if this emissions unit is or would be subject to continuous monitoring.

<u>Continuous Monitoring System:</u> Continuous Monitor \_\_\_ of \_\_\_ 2. Pollutant(s): 1. Parameter Code: 3. CMS Requirement: Rule Other 4. Monitor Information... Manufacturer: Model Number: Serial Number: 6. Performance Specification Test Date: 5. Installation Date: 7. Continuous Monitor Comment: Continuous Monitoring System: Continuous Monitor \_\_\_ 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:

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## 1.0 Introduction

Progress Energy, Florida (PEF) retained C.E.M. Solutions, Inc. to perform source emissions testing on Units 7, 8, 9 and 10 stationary combustion turbines (CT) located at its facility in Intercession City, Florida.

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The test program was conducted in order to evaluate the compliance status of Unit 7, 8, 9 and 10's exhaust, while firing pipeline natural gas and No. 2 distillate fuel oil, in respect to the United States Environmental Protection Agency (USEPA) Standards of Performance for Stationary Turbines (Title 40 of the Code of Federal Regulations, Part 60, Subpart GG) and the Florida Department of Environmental Protection's (FDEP's) permit number 0970014-007-AV. The test program and results are presented and discussed in this report.

James T. Long of Progress Energy's Environmental Services Section coordinated plant operations throughout the test program. All testing was conducted in accordance with test methods promulgated by the USEPA.

Unit 7, 8, 9 and 10 of the Intercession City Facility were found to be in compliance with permit number 0970014-007-AV. Table 1 summarizes the results of the compliance tests conducted on Units 7, 8, 9 and 10.

August 2006

## 2.0 Facility Description

The Intercession City facility's Units 7, 8, 9 and 10, are General Electric Model 7EA gas turbines having a nominal generating capacity of 96.3 MW and are all capable of firing natural gas or distillate oil.

### 2.1 Process Equipment

Units 7, 8, 9 and 10 each have a maximum heat input rating that shall not exceed 1,144 million Btu per hour (mmBtu/hr) when firing natural gas or distillate oil. Calculations are based on the lower heating value (LHV) of each fuel to each unit.

Control measures and equipment consists of firing relatively clean fuel, good combustion practices and water injection for emissions control. Emissions are exhausted through separate 50 ft. stacks, each having inner dimensions of 8.7 ft. by 13.75 ft.

### 2.2 Regulatory Requirements

PEF is required to conduct annual emissions tests for the following pollutants while operating at 90-100 percent of the heat input curve. Emission testing was conducted to determine the compliance status of the following pollutants:

- NOx in lbs/mmBtu RATA
- SO2 in % S by volume
- CO in ppm and pounds per hour
- Opacity in percent
- H<sub>2</sub>SO<sub>4</sub> demonstrated by sulfur analysis

In accordance with permit condition B.41 – B.43, ongoing NO<sub>X</sub> compliance is determined by the Continuous Emissions Monitoring System (CEMS) located on the CT stack. The CEMS was also evaluated during the test program to determine monitoring accuracy.

Table 2 summarizes the applicable emissions and CEMS accuracy limits for Units 7, 8, 9 and 10.

## 3.0 Test Program/Operating Conditions

Emissions tests were completed at the Intercession City Facility to determine the compliance status of Units 7, 8, 9 and 10 on August 22 and 23, 2006 (Units 8 and 10) and on August 28 and 29, 2006 (Units 7 and 9).

CO, and Opacity testing was performed concurrently with a 40CFR, Part 75 Relative Accuracy Test Audit on each Unit at base load while firing natural gas. CO and Opacity were also tested while each Unit operated at base load while firing distillate fuel oil as well.

SO<sub>2</sub> emissions were calculated from fuel analysis and fuel flow rates while the unit was operating at base load.

Turbine operating data was collected and provided by facility personnel during the entire test program. Data provided include, but was not limited to:

- Unit Generation (MW)
- Combustor inlet air temperature
- Fuel flow rate

Table 3 presents the percentage of the maximum heat input, for each Unit, during each test.

Table 3: Heat Input During Test
Progress Energy
Intercession City Facility
Units 7, 8, 9 and 10

	01213 7, 0, 7 2214 20							
Univituel	Galculated DHeavlinput minBru/nr	Mardmunt Heat Inout; Smith Wheel	inderlemps or	Record A				
7, gas	952	952	91	100%				
7, oil	938	985	93	95.2%				
8, gas	955	960	88	99.5%				
8, oil	944	1010	85	93.4%				
9, gas	926	965	87	95.9%				
9, oil	916	997	88	91.8%				
10, gas	961	952	91	100.9%				
10, oil	953	1000	87	95.3%				

CT operating data and heat input curve can be viewed in Appendix A.

All reference method analyzers used meet or exceed applicable performance specifications detailed in the appropriate method.

Gas samples were continuously extracted from the stack by a gas sample probe. Samples were then transported to a gas sample conditioner via a heated sample line operating at 250°F or above. The gas sample conditioner lowers the dew point of the sample gas to approximately 5°C through minimum interference heat exchangers. The dry, cool sample is then sent to the gas analyzers, located in the environmentally controlled test trailer for analysis by the reference method analyzers.

Instrument outputs were recorded continuously with a Windows compatible personal computer, compiled into 15 second averages, and stored in a database for future reference.

Instrument ranges and calibration gases were chosen in accordance with each pollutant's applicable EPA method. Instrument ranges and calibration gases used are shown in Table 5:

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## 4.1.1 Sampling Location/Traverse Points/Test Run Duration

Units 7, 8, 9 and 10 exhaust stack equivalent inner diameter, at the sample location, is 8.7 feet (104"). The emissions sampling location is 15 feet downstream from the nearest flow disturbance, and 10 feet upstream from the stack exhaust. A diagram of the sample location can be viewed in Appendix D.

#### 4.1.1.1 Stratification Test

A gaseous stratification test was completed during the prior year's annual compliance test. It was conducted in accordance with 40CFR, Part 75, Appendix A, Section 6.5.6.1.

Traverse test results are located in Appendix E.

#### 4.1.1.2 Reference Measurement Point

A single reference method measurement point was used during the test program, located no less than 1.0 meter from the stack wall along one of the measurement lines used in the stratification test in accordance with 40CFR, Part 75, Appendix A, Section 6.5.6(b)(4).

#### 4.1.1.3 Test Run Durations

Units 7, 8, 9 and 10 PNG compliance and CEMS RATA test runs were conducted simultaneously. Each RATA run was 21 minutes in duration. Each compliance test run is compiled from three consecutive RATA runs (total of 63 minutes).

For Units 7, 8, 9 and 10 oil compliance tests, samples were taken from a single reference method measurement point for a duration of 60 minutes.

## 4.1.2 Quality Assurance/Quality Control Procedures

All sampling, analytical, and Quality Assurance/Quality Control (QA/QC) procedures outlined in the EPA methods were followed. All test equipment was calibrated before or during use in the field. Interference checks, response time checks, and NO<sub>2</sub> to NO converter checks were performed on each instrumental analyzer, as applicable, before field use. In the field, each analyzer and the entire instrument measurement system was checked for system bias before and following each test run using the calibration gases listed in Table 5.

Appendix E contains the QA/QC checks.

PEF, Intercession City Compliance Test August 2006 Page 9 of 21

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#### 5.0 Test Results

The test program results are summarized in Table 6 and are discussed below. Summaries of the compliance test results for NO<sub>X</sub>, CO, and SO<sub>2</sub>, Supporting RM field data, fuel analysis reports, and calculated values are presented in Appendix F through H.

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#### 5.1 Unit 7

#### 5.1.1 Nitrogen Oxides (NO<sub>X</sub>)

NOx compliance for Unit 7 is continuously determined using the CEMS. The difference between the CEMS monitor and the reference method reading for Unit 7 was 0.004 lb/mmBtu, over the nine test runs, passing the annual performance specification of 0.015 lb/mmBtu.

#### 5.1.2 Carbon Monoxide (CO)

During the Unit 7 gas compliance test, CO emissions for the three test runs averaged 4.4 ppmvd. Units 7 CO mass emissions averaged 8.2 lbs/hr over the three test runs, passing the 21.3 lbs/hr emission limitation.

During the Unit 7 oil compliance test, CO emissions for the three test runs averaged 0.1 ppmvd, passing the 25 ppmvd limitation. Unit 7 CO mass emissions averaged 0.0 lbs/hr over the three test runs, passing the 54.00 lbs/hr emission limitation.

#### 5.1.3 Visual Emissions

The highest opacity emissions observed in any six-minute average on Unit 7 during both (gas and oil) one hour test runs was 0%, passing the 10% and 20% emission limitation.

#### 5.1.4 Sulfur Dioxide (SO<sub>2</sub>)

The sulfur content of the gas burned during the Unit 7 compliance test was 0.053 grains/100scf, below the 1.0 grains/100 scf maximum limitation.

The sulfur content of the oil burned during the Unit 7 compliance test was 0.07 % of the fuel by weight, below the 0.2% maximum limitation.

#### 5.2.4 Sulfur Dioxide (SO<sub>2</sub>)

The sulfur content of the gas burned during the Unit 8 compliance test was 0.006 grains/100scf, below the 1.0 grains/100scf maximum limitation.

The sulfur content of the oil burned during the Unit 8 compliance test was 0.17 % of the fuel by weight, also below the 0.2% maximum limitation.

#### 5.2.5 Sulfuric Acid Mist (H<sub>2</sub>SO<sub>4</sub>)

The sulfur content of the gas burned during the Unit 8 compliance test was 0.006 grains/100scf, below the 1.0 grains/100scf maximum limitation (by permit condition B-7).

The sulfur content of the oil burned during the Unit 8 compliance test was 0.17% of the fuel by weight, below the 0.2% maximum limitation.

#### 5.3 Unit 9

### 5.3.1 Nitrogen Oxides (NOx)

NOx compliance for Unit 9 is continuously determined using the CEMS. The difference between the CEMS monitor and the reference method reading for Unit 9 was 0.005 lb/mmBtu, over the nine test runs, passing the annual performance specification of 0.015 lb/mmBtu.

## 5.3.2 Carbon Monoxide (CO)

During the Unit 9 gas compliance test, CO emissions for the three test runs averaged 3.6 ppmvd. Units 7 CO mass emissions averaged 6.5 lbs/hr over the three test runs, passing the 21.3 lbs/hr emission limitation.

During the Unit 9 oil compliance test, CO emissions for the three test runs averaged 0.4 ppmvd, passing the 25 ppmvd limitation. Unit 9 CO mass emissions averaged 0.9 lbs/hr over the three test runs, passing the 54.00 lbs/hr emission limitation.

#### 5.3.3 Visual Emissions

The highest opacity emissions observed in any six-minute average on Unit 9 during both (gas and oil) one hour test runs was 0%, passing the 10% and 20% emission limitation.

PEF, Intercession City Compliance Test August 2006 Page 13 of 21

C.E.M. Solutions, Inc. Report 20-2697-07080910-001 Last Updated: 9/20/2006

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## 5.4.4 Sulfur Dioxide (SO<sub>2</sub>)

The sulfur content of the gas burned during the Unit 10 compliance test was 0.006 grains/100scf, below the 1.0 grains/100 scf maximum limitation.

The sulfur content of the oil burned during the Unit 10 compliance test was 0.20 % of the fuel by weight, passing the 0.2% maximum limitation.

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#### 5.4.5 Sulfuric Acid Mist (H2SO4)

The sulfur content of the gas burned during the Unit 10 compliance test was 0.006 grains/100scf, below the 1.0 grains/100 scf maximum limitation (by permit condition B-7).

The sulfur content of the oil burned during the Unit 10 compliance test was 0.20% of the fuel by weight, passing the 0.20% maximum limitation.

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# Table 6 (Continued): Compliance Summary Progress Energy Florida Intercession City Facility Units 9 and 10

		Units 9 and	10	
Unit	Parameter	Measured	Limitation	Compliance Status (Pass/Fail)
9	Nitrogen Oxides (NO <sub>x</sub> )	0.005 lb/mmBtu	Difference ≤0.020 lb/mmBtu	Pass
9	Carbon Monoxide (CO)	6.5 lbs/hr PNG 0.4 ppmvd and 0.9 lbs/hr Oil	21.3 lbs/hr Gas. 25 ppmvd and 54.0 Oil	Pass Pass
9	Visual Emissions	0.0% on PNG 0.0% on Oil	≤10% for both PNG and Oil	Pass Pass
9	PNG Sulfur Content	0.053% gr./ 100scf	1 grain/100 dscf for gas	Pass
9	No. 2 Fuel Oil Sulfur Content	0.07% by Weight	0.2% by Weight	Pass
9	Sulfur Acid Mist (H2SO4)	0.053 gr/100scf (PNG) and 0.07% (Oil) by Weight	1 grain/100 dscf for gas ≤0.2% by weight Oil	Pass Pass
10	Nitrogen Oxides (NOx)	0.003 lb/mmBtu	Difference ≤0.020 lb/mmBtu	Pass
10	Carbon Monoxide (CO)	2.2 lbs/hr PNG 0.2 ppmvd and 0.3 lb/hr Oil	21.3 lbs/hr Gas. 25 ppmvd and 54.0 Oil	Pass
10	Visual Emissions	0.0% on PNG 0.0% on Oil	≤10% for both PNG and Oil	Pass
10	PNG Sulfur Content	0.006% gr./ 100scf	1 grain/100 dscf for gas	Pass
10	No. 2 Fuel Oil Sulfur Content	0.20% by Weight	0.2% by Weight	Pass
10	Sulfur Acid Mist (H <sub>2</sub> SO <sub>4</sub> )	0.006 gr/100scf (PNG) and 0.20% (Oil) by Weight	1 grain/100 dscf for gas ≤0.2% by weight Oil	Pass

# Table 8: Unit 8 NOX CEMS Accuracy Progress Energy Intercession City Facility Unit 8

## **Relative Accuracy Determination**

Test Performed For Progress Energy Intercession City Unit 8 Gas RATA

Date: 08/22/2006

Test Performed By: C.E.M. Solutions, Inc. 7990 W. Gulf to Lake Hwy. Crystal River, FL 34429 Ph: 352-564-0441

Run	Date of	Start	Stop	Unit Load	NO <sub>x</sub> RM	CEM	Difference
Number	Run	Time	Time	MW	lbs/mmBtu	lbs/mmBtu	Like lbs/mmBtu
i wasani		Series Contract	y de la company				
Run 1	22-Aug	8:17:00	8:38:00	81	0.079	0.074	0.005
Run 2	22-Aug	8:56:00	9:17:00	80	0.077	0.075	0.002
Run 3	22-Aug	9:33:00	9:54:00	80	0.078	0.075	0.003
Run 4	22-Aug	10:12:00	10:33:00	79	0.078	0.076	0.002
Run 5	22-Aug	10:51:00	11:12:00	79	0.079	0.075	0.004
Run 6	22-Aug	11:32:00	11:53:00	79	0.078	0.075	0.003
Run 7	22-Aug	12:23:00	12:44:00	79	0.079	0.074	0.005
Run 8	22-Aug	13:04:00	13:25:00	78	0.079	0.072	0.007
Run 9	22-Aug	13:45:00	14:06:00	78	0.079	0.072	0.007

Average: 79 0.078 0.074 0.004 lbs/mmBtu

Bias Test (pass/fail): Failed Bias Adjustment Factor: 1.057

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Method of RA Determination: Part 75, Standard Emitter

Standard Deviation: 0.0019
Confidence Coefficient: 0.0015
T-Factor: 2.306
Number of runs Reported: 9

Note: All ppm values are corrected to lbs/mmBtu NO<sub>X</sub> using RM CO2 and CEM CO2 as diluents Relative Accuracy: 7.266
Maximum RA 10.00
RA Status Passed

# Table 10: Unit 10 NOX CEMS Accuracy Progress Energy Intercession City Facility Unit 10

## **Relative Accuracy Determination**

Test Performed For: Progress Energy Intercession City Unit 8 Gas RATA Test Performed By: C.E.M. Solutions, Inc. 7990 W. Gulf to Lake Hwy. Crystal River, FL 34429 Ph: 352-564-0441

Run         Date of Number         Start         Stop         Unit Load         NO <sub>X</sub> RM         CEM         Difference           Number         Run         Time         Time         MW         lbs/mmBtu         lbs/mmBtu         Like lbs/mmBtu           Run 1         22-Aug         8:17:00         8:38:00         81         0.073         0.072         0.001           Run 2         22-Aug         8:56:00         9:17:00         80         0.073         0.074         -0.001           Run 3         22-Aug         9:33:00         954:00         80         0.074         0.073         0.001           Run 4         22-Aug         10:12:00         10:33:00         80         0.075         0.074         0.001           Run 5         22-Aug         10:51:00         11:12:00         79         0.076         0.072         0.004           Run 6         22-Aug         11:32:00         11:53:00         78         0.078         0.073         0.005           Run 7         22-Aug         13:04:00         13:25:00         78         0.079         0.072         0.007           Run 9         22-Aug         13:45:00         14:06:00         78         0.079         0.073	Date: 08/22/2	006						
Number         Run         Time         MW         Ibs/mmBtu         Ibs/mmBtu         Like ibs/mmBtu           Run 1         22-Aug         8:17:00         8:38:00         81         0.073         0.074         0.001           Run 2         22-Aug         8:56:00         9:17:00         80         0.073         0.074         -0.001           Run 3         22-Aug         9:33:00         80         0.074         0.073         0.001           Run 4         22-Aug         10:12:00         10:33:00         80         0.075         0.074         0.001           Run 5         22-Aug         10:51:00         11:12:00         79         0.076         0.072         0.004           Run 6         22-Aug         11:32:00         11:53:00         78         0.078         0.073         0.005           Run 7         22-Aug         12:23:00         12:44:00         78         0.078         0.073         0.005           Run 8         22-Aug         13:04:00         13:25:00         78         0.079         0.072         0.007           Run 9         22-Aug         13:45:00         14:06:00         78         0.079         0.071         0.0031           <	Run	Date of	Start	Stop	Unit Load	NO <sub>x</sub> RM	CEM	Difference
Run 2 22-Aug 8:56:00 9:17:00 80 0.073 0.074 -0.001 Run 3 22-Aug 9:33:00 9:54:00 80 0.074 0.073 0.001 Run 4 22-Aug 10:12:00 10:33:00 80 0.075 0.074 0.001 Run 5 22-Aug 10:51:00 11:12:00 79 0.076 0.072 0.004 Run 6 22-Aug 11:32:00 11:53:00 78 0.078 0.073 0.005 Run 7 22-Aug 12:23:00 12:44:00 78 0.078 0.073 0.005 Run 8 22-Aug 13:04:00 13:25:00 78 0.079 0.072 0.007 Run 9 22-Aug 13:45:00 14:06:00 78 0.079 0.071 0.008  Average: 79 0.076 0.073 0.003 lbs/mmBtu  Blias Test (pass/fail): Failed Standard Deviation: 0.0031 Bias Adjustment Factor: 1.047 Method of RA Determination: Part 75, Standard Emitter  Relative Accuracy: 7.643 Mothod: Maximum RA 10.00		Run	Time	Time	MW	lbs/mmBtu	lbs/mmBtu	Like lbs/mmBtu
Run 2 22-Aug 8:56:00 9:17:00 80 0.073 0.074 -0.001 Run 3 22-Aug 9:33:00 9:54:00 80 0.074 0.073 0.001 Run 4 22-Aug 10:12:00 10:33:00 80 0.075 0.074 0.001 Run 5 22-Aug 10:51:00 11:12:00 79 0.076 0.072 0.004 Run 6 22-Aug 11:32:00 11:53:00 78 0.078 0.073 0.005 Run 7 22-Aug 12:23:00 12:44:00 78 0.078 0.073 0.005 Run 8 22-Aug 13:04:00 13:25:00 78 0.079 0.072 0.007 Run 9 22-Aug 13:45:00 14:06:00 78 0.079 0.071 0.008  Average: 79 0.076 0.073 0.003 lbs/mmBtu  Blias Test (pass/fail): Failed Standard Deviation: 0.0031 Bias Adjustment Factor: 1.047 Confidence Coefficient: 7-Factor: 2.306 Method of RA Determination: Part 75, Standard Emitter  Number of runs Reported: 9  Relative Accuracy: 7.643 Ill ppm values are corrected to lbs/mmBtu NO <sub>X</sub> Relative Accuracy: 7.643 Ill ppm values are corrected to lbs/mmBtu NO <sub>X</sub>	Run 1	22-Aug	8:17:00	8:38:00	81	0.073	0.072	0.001
Run 3 22-Aug 9:33:00 9:54:00 80 0.074 0.073 0.001 Run 4 22-Aug 10:12:00 10:33:00 80 0.075 0.074 0.001 Run 5 22-Aug 10:51:00 11:12:00 79 0.076 0.072 0.004 Run 6 22-Aug 11:32:00 11:53:00 78 0.078 0.073 0.005 Run 7 22-Aug 12:23:00 12:44:00 78 0.078 0.073 0.005 Run 8 22-Aug 13:04:00 13:25:00 78 0.079 0.072 0.007 Run 9 22-Aug 13:45:00 14:06:00 78 0.079 0.071 0.008  Average: 79 0.076 0.073 0.003 lbs/mmBtu  Bias Test (pass/fail): Failed Bias Adjustment Factor: 1.047 Method of RA Determination: Part 75, Standard Emitter  Relative Accuracy: 7.643 Maximum RA 10.00		• .	8:56:00	9:17:00	80	0.073	0.074	-0.001
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Run 5 22-Aug 10:51:00 11:12:00 79 0.076 0.072 0.004 Run 6 22-Aug 11:32:00 11:53:00 78 0.078 0.073 0.005 Run 7 22-Aug 12:23:00 12:44:00 78 0.078 0.073 0.005 Run 8 22-Aug 13:04:00 13:25:00 78 0.079 0.072 0.007 Run 9 22-Aug 13:45:00 14:06:00 78 0.079 0.071 0.008  Average: 79 0.076 0.073 0.003 lbs/mmBtu  Blas Test (pass/fail): Falled Blas Adjustment Factor: 1.047 Method of RA Determination: Part 75, Standard Emitter  Number of runs Reported: 9  Relative Accuracy: 7.643					. 80	0.075	0.074	0.001
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Run 7 22-Aug 12:23:00 12:44:00 78 0.078 0.073 0.005 Run 8 22-Aug 13:04:00 13:25:00 78 0.079 0.072 0.007 Run 9 22-Aug 13:45:00 14:06:00 78 0.079 0.071 0.008  Average: 79 0.076 0.073 0.003 lbs/mmBtu  Bias Test (pass/fail): Failed Standard Deviation: 0.0031 Bias Adjustment Factor: 1.047 Method of RA Determination: Part 75, Standard Emitter T-Factor: 2.306 Number of runs Reported: 9  Note: Relative Accuracy: 7.643 Maximum RA 10.00	·				78	0.078	0.073	0.005
Run 8 22-Aug 13:04:00 13:25:00 78 0.079 0.072 0.007 Run 9 22-Aug 13:45:00 14:06:00 78 0.079 0.071 0.008  Average: 79 0.076 0.073 0.003 lbs/mmBtu  Bias Test (pass/faii): Failed Standard Deviation: 0.0031 Bias Adjustment Factor: 1.047 Confidence Coefficient: 0.0024 Method of RA Determination: Part 75, Standard Emitter T-Factor: 2.306 Number of runs Reported: 9  Note: Relative Accuracy: 7.643 Maximum RA 10.00					78	0.078	0.073	0.005
Run 9       22-Aug 13:45:00       14:06:00       78       0.079       0.071       0.008         Average: 79       0.076       0.073       0.003 lbs/mmBtu         Bias Test (pass/fail): Failed       Standard Deviation: 0.0031         Bias Adjustment Factor: 1.047       Confidence Coefficient: 0.0024         Method of RA Determination: Part 75, Standard Emitter       T-Factor: 2.306         Number of runs Reported: 9         Note: Note: Maximum RA       Relative Accuracy: 7.643         Maximum RA       10.00		•			78	0.079	0.072	0.007
Average: 79 0.076 0.073 0.003 lbs/mmBtu  Blas Test (pass/fail): Failed Standard Deviation: 0.0031  Bias Adjustment Factor: 1.047 Confidence Coefficient: 0.0024  Method of RA Determination: Part 75, Standard Emitter T-Factor: 2.306  Number of runs Reported: 9  Note: Relative Accuracy: 7.643  Maximum RA 10.00		,	,		,	0.079	0.071	0.008
Bias Test (pass/fail): Failed Standard Deviation: 0.0031 Bias Adjustment Factor: 1.047 Confidence Coefficient: 0.0024 Method of RA Determination: Part 75, Standard Emitter T-Factor: 2.306 Number of runs Reported: 9  Note: Relative Accuracy: 7.643 Ill ppm values are corrected to lbs/mmBtu NO <sub>X</sub> Relative Accuracy: 7.643					70	0.076	0.073	0.003 lbs/mmBtu
Bias Adjustment Factor: 1.047  Method of RA Determination: Part 75, Standard Emitter  Number of runs Reported: 9  Note:  Relative Accuracy: 7.643  Naximum RA 10.00		e de la seco	Average.		13	0.070	0.0.0	
Number of runs Reported: 9  Note: Relative Accuracy: 7.643  Note: Maximum RA 10.00  Note: Maximum RA 10.00	Bias	s Adjustme	ent Factor:	1.047	andard Emit		Confidence Coefficient:	0.0024 2.306
Note: All ppm values are corrected to lbs/mmBtu NO <sub>x</sub> Maximum RA  10.00						Nur	mber of runs Reported:	9
DA OL-Luc Docad	Note: VII ppm value:	s are correc	ted to lbs/n	nmBtu NO <sub>X</sub>				
							RA Status	Passed

Attachment IC-EU2-IV5
Acid Rain Permit Application
Acid Rain Part - Phase II

# Acid Rain Part Application

For more information, see instructions and refer to 40 CFR 72.30 and 72.31 and Chapter 62-214, F.A.C.

This submission is:

Renewal

STEP 1 Identify the source by plant name, State, and ORIS code

	·	
Plant Name Intercession City Facility	State FI.	ORIS Code 8049

STEP 2

Enter the unit ID# for every Acid Rain unit at the Acid Rain source in column "a." For new units, enter the requested information in columns "c" and "d."

Unit ID# Unit will **New Units New Units** hold allowances in accordance with 40 CFR Commence Monitor Certification 72.9(c)(1) **Operation Date** Deadline No Yes No Yes No Yes No Yes No Yes 12 No Yes 13 No Yes Yes Yes Yes Yes Yes

Intercession City Facility	<u>-</u>	
Plant Name (from Step 1)		

#### STEP 3 Read the standard requirements

#### Acid Rain Part Requirements

- (1) The designated representative of each Acid Rain source and each Acid Rain unit at the source shall:
  - (i) Submit a complete Acid Rain part application (including a compliance plan) under 40 CFR part 72 and Rules 62-214.320 and 330, F.A.C., in accordance with the deadlines specified in Rule 62-214.320, F.A.C.; and
  - (ii) Submit in a timely manner any supplemental information that the Department determines is necessary in order to review an Acid Rain part application and issue or deny an Acid Rain part;
- (2) The owners and operators of each Acid Rain source and each Acid Rain unit at the source shall:
  - (i) Operate the unit in compliance with a complete Acid Rain part application or a superseding Acid Rain part issued by the Department; and
  - (ii) Have an Acid Rain Part.

#### Monitoring Requirements

- (1) The owners and operators and, to the extent applicable, designated representative of each Acid Rain source and each Acid Rain unit at the source shall comply with the monitoring requirements as provided in 40 CFR part 75, and Rule 62-214.420, F.A.C.
- (2) The emissions measurements recorded and reported in accordance with 40 CFR part 75 shall be used to determine compliance by the unit with the Acid Rain emissions limitations and emissions reduction requirements for sulfur dioxide and nitrogen oxides under the Acid Rain Program.
- (3) The requirements of 40 CFR part 75 shall not affect the responsibility of the owners and operators to monitor emissions of other pollutants or other emissions characteristics at the unit under other applicable requirements of the Act and other provisions of the operating permit for the source.

#### Sulfur Dioxide Requirements

- (1) The owners and operators of each source and each Acid Rain unit at the source shall:
  - (i) Hold allowances, as of the allowance transfer deadline, in the unit's compliance subaccount (after deductions under 40 CFR 73.34(c)), or in the compliance subaccount of another Acid Rain unit at the same source to the extent provided in 40 CFR 73.35(b)(3), not less than the total annual emissions of sulfur dioxide for the previous calendar year from the unit; and
- (ii) Comply with the applicable Acid Rain emissions limitations for sulfur dioxide.(2) Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide shall constitute a separate violation of the Act.
- (3) An Acid Rain unit shall be subject to the requirements under paragraph (1) of the sulfur dioxide requirements as follows: (i) Starting January 1, 2000, an Acid Rain unit under 40 CFR 72.6(a)(2); or
  - (ii) Starting on the later of January 1, 2000 or the deadline for monitor certification under 40 CFR part 75, an Acid Rain unit under 40 CFR 72.6(a)(3).
- (4) Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program.
- (5) An allowance shall not be deducted in order to comply with the requirements under paragraph (1) of the sulfur dioxide requirements prior to the calendar year for which the allowance was allocated.
- (6) An allowance allocated by the Administrator under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the Acid Rain part application, the Acid Rain part, or an exemption under 40 CFR 72.7 or 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.
- (7) An allowance allocated by the Administrator under the Acid Rain Program does not constitute a property right.

Nitrogen Oxides Requirements The owners and operators of the source and each Acid Rain unit at the source shall comply with the applicable Acid Rain emissions limitation for nitrogen oxides.

#### **Excess Emissions Requirements**

- (1) The designated representative of an Acid Rain unit that has excess emissions in any calendar year shall submit a proposed offset plan, as required under 40 CFR part 77.
- (2) The owners and operators of an Acid Rain unit that has excess emissions in any calendar year shall:
  - (i) Pay without demand the penalty required, and pay upon demand the interest on that penalty, as required by 40 CFR part 77; and
  - (ii) Comply with the terms of an approved offset plan, as required by 40 CFR part 77.

#### Recordkeeping and Reporting Requirements.

- (1) Unless otherwise provided, the owners and operators of the source and each Acid Rain unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 5 years, in writing by the EPA or the Department:
  - (i) The certificate of representation for the designated representative for the source and each Acid Rain unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with Rule 62-214.350, F.A.C.; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation changing the designated representative;
  - (ii) All emissions monitoring information, in accordance with 40 CFR part 75, provided that to the extent that 40 CFR part 75 provides for a 3-year period for recordkeeping, the 3-year period shall apply;
  - (iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program; and.



Intercession City Facility		
Plant Name (from Step 1)	2	

#### Recordkeeping and Reporting Requirements (cont)

- (iv) Copies of all documents used to complete an Acid Rain part application and any other submission under the Acid Rain Program or to demonstrate compliance with the requirements of the Acid Rain Program.
- (2) The designated representative of an Acid Rain source and each Acid Rain unit at the source shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR part 72 subpart I and 40 CFR part 75.

- (1) Any person who knowingly violates any requirement or prohibition of the Acid Rain Program, a complete Acid Rain part application, an Acid Rain part, or an exemption under 40 CFR 72.7 or 72.8, including any requirement for the payment of any penalty owed to the United States, shall be subject to enforcement pursuant to section 113(c) of the Act.
- (2) Any person who knowingly makes a false, material statement in any record, submission, or report under the Acid Rain Program shall be subject to criminal enforcement pursuant to section 113(c) of the Act and 18 U.S.C. 1001.
- (3) No permit revision shall excuse any violation of the requirements of the Acid Rain Program that occurs prior to the date that the revision takes effect.
- (4) Each Acid Rain source and each Acid Rain unit shall meet the requirements of the Acid Rain Program.
- (5) Any provision of the Acid Rain Program that applies to an Acid Rain source (including a provision applicable to the designated representative of an Acid Rain source) shall also apply to the owners and operators of such source and of the Acid Rain units at the source.
- (6) Any provision of the Acid Rain Program that applies to an Acid Rain unit (including a provision applicable to the designated representative of an Acid Rain unit) shall also apply to the owners and operators of such unit. Except as provided under 40 CFR 72.44 (Phase II repowering extension plans) and 40 CFR 76.11 (NOx averaging plans), and except with regard to the requirements applicable to units with a common stack under 40 CFR part 75 (including 40 CFR 75.16, 75.17, and 75.18), the owners and operators and the designated representative of one Acid Rain unit shall not be liable for any violation by any other Acid Rain unit of which they are not owners or operators or the designated representative and that is located at a source of which they are not owners or operators or the designated representative.
- (7) Each violation of a provision of 40 CFR parts 72, 73, 75, 76, 77, and 78 by an Acid Rain source or Acid Rain unit, or by an owner or operator or designated representative of such source or unit, shall be a separate violation of the Act.

#### Effect on Other Authorities.

No provision of the Acid Rain Program, an Acid Rain part application, an Acid Rain part, or an exemption under 40 CFR 72.7or 72.8 shall be construed as:

- (1) Except as expressly provided in title IV of the Act, exempting or excluding the owners and operators and, to the extent applicable, the designated representative of an Acid Rain source or Acid Rain unit from compliance with any other provision of the Act, including the provisions of title I of the Act relating to applicable National Ambient Air Quality Standards or State Implementation Plans;
- (2) Limiting the number of allowances a unit can hold; provided, that the number of allowances held by the unit shall not affect the source's obligation to comply with any other provisions of the Act;
- (3) Requiring a change of any kind in any State law regulating electric utility rates and charges, affecting any State law regarding such State regulation, or limiting such State regulation, including any prudence review requirements under such State law;

  (4) Modifying the Federal Power Act or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or,
- (5) Interfering with or impairing any program for competitive bidding for power supply in a State in which such program is established.

#### Certification

I am authorized to make this submission on behalf of the owners and operators of the Acid Rain source or Acid Rain units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Signature J. Milas		Date 6/20/07
Name J. Michael Kennedy Q.E.P.		

STEP 4

Read the certification statement, sign, and date

# Acid Rain Program Instructions for Acid Rain Part Application (40 CFR 72.30 - 72.31 and Rule 62-214.320, F.A.C.)

The Acid Rain Program requires the designated representative to submit an Acid Rain part application for each source with an Acid Rain unit. A complete Certificate of Representation must be received by EPA <u>before</u> the part application is submitted to the title V permitting authority. A complete Acid Rain part application, once submitted, is binding on the owners and operators of the Acid Rain source and is enforceable in the absence of an Acid Rain part until the title V permitting authority either issues an Acid Rain part to the source or disapproves the application.

Please type or print. The alternate designated representative may sign in lieu of the designated representative. If assistance is needed, contact the title V permitting authority.

- STEP 1 Use the plant name and ORIS Code listed on the Certificate of Representation for the plant. An ORIS code is a 4 digit number assigned by the Energy Information Agency (EIA) at the U.S. Department of Energy to power plants owned by utilities. If the plant is not owned by a utility but has a 5 digit facility code (also assigned by EIA), use the facility code. If no code has been assigned or if there is uncertainty regarding what the code number is, contact EIA at (202) 287-1730 (for ORIS codes), or (202) 287-1927 (for facility codes).
- STEP 2 For column "a," identify each Acid Rain unit at the Acid Rain source by providing the appropriate unit identification numbers, consistent with the unit identification numbers entered on the Certificate of Representation and with unit identification numbers used in reporting to DOE and/or EIA. For new units without identification numbers, owners and operators may assign such numbers consistent with EIA and DOE requirements.

For columns "c" and "d," enter the commence operation date(s) and monitor certification deadline(s) for new units in accordance with 40 CFR 72.2 and 75.4, respectively.

#### **Submission Deadlines**

For new units, an initial Acid Rain part application must be submitted to the title V permitting authority 24 months before the date the unit commences operation. Acid rain part renewal applications must be submitted at least 6 months in advance of the expiration of the acid rain portion of a title V permit, or such longer time as provided for under the title V permitting authority's operating permits regulation.

#### **Submission Instructions**

Submit this form to the appropriate title V permitting authority. If you have questions regarding this form, contact your local, State, or EPA Regional acid rain contact, or call EPA's Acid Rain Hotline at (202) 564-9620.



### Certificate of Representation

ge 1

For more information, see instructions and refer to 40 CFR 72.24  This submission is: New Revised (revised submissions must be completed in full; see This submission includes combustion or process sources under 40 CFR part 74  STEP 1  Plant Name  State  ORIS Code						
This submission includes combustion or process sources under 40 CFR part 74  Plant Name State ORIS Coc						
STEP 1 Plant Name State ORIS Coo	e instruct					
dentify the course by	ie					
dentify the source by plant name, State, and plant name, State, and plant control of the source by plant name, State, and st						
ORIS code. Intercession City Facility FL 8049						
Name J. Michael Kennedy, QEP						
nformation for the esignated representative.  Address Florida Power Corporation dba Progress Energy, Florida	Address Florida Power Corporation dba Progress Energy, Florida					
P.O. Box 14042, MAC - PEF 903						
St. Petersburg, FL 33733						
Phone Number (727) 820-5567 Fax Number (727) 820-5229						
E-mail address (if available) j-michael.kennedy@pgnmail.com.com						
TEP 3 Inter requested Name						
nformation for the Iternate designated epresentative, if applicable.						

Phone Number	Fax Number
E-mail address (if available)	
I certify that I was selected as the designated reprise as applicable, by an agreement binding on the own	esentative or alternate designated representative,

STEP 4 Complete Step 5, read the certifications, and sign and date. For a designated representative of a combustion or combustion or process process source under 40 CFR part 74, the references in the certifications to "affected unit" or "affected units" also apply to the combustion or process source under 40 CFR part 74 and the references to "affected source" also apply to the source at which the source is located.

affected unit at the source.

I certify that I have given notice of the agreement, selecting me as the 'designated representative' for the affected unit at the source identified in this certificate of representation, in a newspaper of general circulation in the area where the source is located or in a State publication designed to give general public notice.

I certify that I have all necessary authority to carry out my duties and responsibilities under the Acid Rain Program on behalf of the owners and operators of the affected source and of each affected unit at the source and that each such owner and operator shall be fully bound by my actions, inactions, or

I certify that I shall abide by any fiduciary responsibilities imposed by the agreement by which I was selected as designated representative or alternate designated representative, as applicable.

I certify that the owners and operators of the affected source and of each affected unit at the source shall be bound by any order issued to me by the Administrator, the permitting authority, or a court regarding the source or unit.

Where there are multiple holders of a legal or equitable title to, or a leasehold interest in, an affected unit, or where a utility or industrial customer purchases power from an affected unit under life-of-theunit, firm power contractual arrangements, I certify that:

I have given a written notice of my selection as the designated representative or alternate designated representative, as applicable, and of the agreement by which I was selected to each owner and operator of the affected source and of each affected unit at the source; and

Allowances and the proceeds of transactions involving allowances will be deemed to be held or distributed in proportion to each holder's legal, equitable, leasehold, or contractual reservation or entitlement or, if such multiple holders have expressly provided for a different distribution of allowances by contract, that allowances and the proceeds of transactions involving allowances will be deemed to be held or distributed in accordance with the contract.

The agreement by which I was selected as the alternate designated representative, if applicable, includes a procedure for the owners and operators of the source and affected units at the source to authorize the alternate designated representative to act in lieu of the designated representative.

I am authorized to make this submission on behalf of the owners and operators of the affected source or affected units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Signature (designated representative)	Date 6/20/07
Signature (alternate designated representative)	Date

STEP 5
Provide the name of every owner and operator of the source and each affected unit (or combustion or process source) they own and or operate.

	<sup>ame</sup> n <b>ergy</b> ,	Florida Po Florida	wer Corpoi	Owner Operator			
ID	# 7	iD# 8	ID# <b>9</b>	ID# 10	ID# 11	ID# 12	ID# <b>13</b>
ID	# 14	ID#	ID#	ID#	ID#	ID#	ID#

	Georgia P er of each	ower owns year	<b>✓</b> Owner	Operator		
ID# <b>11</b>	ID#	ID#	ID#	ID#	ID#	ID#
ID#	ID#	ID#	ID#	ID#	ID#	ID#

Name					Owner	Operator
ID#	ID#	ID#	ID#	ID#	ID#	ID#
ID#	ID#	ID#	ID#	ID#	ID#	ID#

Name			Owner .	Operator		
ID#	ID#	ID#	ID#	ID#	ID#	ID#
ID#	ID#	ID#	ID#	ID#	ID#	ID#

#### III. EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Application - For Title V air operation permitting only, emissions units are classified as regulated, unregulated, or insignificant. If this is an application for Title V air operation permit, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each regulated and unregulated emissions unit addressed in this application for air permit. Some of the subsections comprising the Emissions Unit Information Section of the form are optional for unregulated emissions units. Each such subsection is appropriately marked. Insignificant emissions units are required to be listed at Section II, Subsection C.

Air Construction Permit or FESOP Application - For air construction permitting or federally enforceable state air operation permitting, emissions units are classified as either subject to air permitting or exempt from air permitting. The concept of an "unregulated emissions unit" does not apply. If this is an application for air construction permit or FESOP, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit subject to air permitting addressed in this application for air permit. Emissions units exempt from air permitting are required to be listed at Section II, Subsection C.

Air Construction Permit and Revised/Renewal Title V Air Operation Permit Application — Where this application is used to apply for both an air construction permit and a revised/renewal Title V air operation permit, each emissions unit is classified as either subject to air permitting or exempt from air permitting for air construction permitting purposes and as regulated, unregulated, or insignificant for Title V air operation permitting purposes. The air construction permitting classification must be used to complete the Emissions Unit Information Section of this application for air permit. A separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit subject to air permitting addressed in this application for air permit. Emissions units exempt from air construction permitting and insignificant emissions units are required to be listed at Section II, Subsection C.

If submitting the application form in hard copy, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application must be indicated in the space provided at the top of each page.

56DEP Form No. 62-210.900(1) - Form

#### A. GENERAL EMISSIONS UNIT INFORMATION

#### <u>Title V Air Operation Permit Emissions Unit Classification</u>

1.	Regulated or Unregulated Emissions Unit? (Check one, if applying for an initial, revised or renewal Title V air operation permit. Skip this item if applying for an air construction permit or FESOP only.)							
	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.							
En	nissions Unit	Descr	ription and Sta	tus		<u>.</u> .		
1.	Type of Emis	ssions	Unit Addresse	d in t	this Section	: (Check one)		
	This !	Emiss	ions Unit Infor	matio	on Section a	addresses, as a single	e emissions unit, a	
	~ .		•	-	•	which produces one opint (stack or vent)	or more air pollutants	
	This Emi	ssions	s Unit Informati	ion S	ection addr	esses, as a single em	uissions unit, a group of	
	-	_	luction units an but may also pi				efinable emission point	
	•	-			•			
						esses, as a single em s which produce fugi	itive emissions only.	
	Description of mbustion Turk		issions Unit Ad	dress	sed in this S	Section:		
C0,	industion 1 at	onic C	,1 11.					
3.	Emissions U	nit Ide	entification Nur	nber:	011	٠		
4.	Emissions		Commence		Initial	7. Emissions	8. Acid Rain Unit?	
	Unit Status		Construction		Startup	Unit Major	X Yes	
	Code:	I	Date:		Date:	Group SIC Code:	□ No	
	<b>A</b>			Jan	uary 1997	49		
9.	Package Unit	-				,		
	Manufacturer: Siemens Model Number: V84.3							
10.	Generator Na	mepla	ate Rating: 17	l MV	<b>V</b>			
	Emissions U						-	
	CT 11 has a generator rating of 171 MW for oil-firing. The rating is 154.3 MW for natural gas-							
firi	ng.				. **			
	•		•				•	
							·	

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### EMISSIONS UNIT INFORMATION Section [3] of [4]

#### **Emissions Unit Control Equipment**

1. Control Equipment/Method(s) Description:

NO<sub>x</sub> and SO<sub>2</sub> emissions are controlled with water injection and burning No. 2 low sulfur fuel oil.

2. Control Device or Method Code(s): 28

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#### **B. EMISSIONS UNIT CAPACITY INFORMATION**

(Optional for unregulated emissions units.)

#### **Emissions Unit Operating Capacity and Schedule**

- 1. Maximum Process or Throughput Rate:
- 2. Maximum Production Rate:
- 3. Maximum Heat Input Rate: 2,032 MMBtu/hr
- 4. Maximum Incineration Rate: pounds/hr

tons/day

5. Requested Maximum Operating Schedule:

24 hours/day

7 days/week

52 weeks/year

3,390 hours/year

6. Operating Capacity/Schedule Comment:

The maximum heat input rate of 2,032 MMBtu/hr is based on oil-firing at an inlet temperature of 20° F during peak loading for one combustion turbine (CT).

The turbine is permitted to operate up to the equivalent of 3,390 hr/CT/yr at peak or other lesser loads and 38.7 percent capacity factor. The capacity factor shall be limited to 33% based on weighted 12-month rolling average sulfur content not to exceed 0.2%. If sulfur content is less than 0.2%, the capacity factor can be adjusted up to 38.7%. Fuel oil usage not limited for a single turbine; usage up to 44,649,690 gal/yr at 59°F in combination with EU002.

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# C. EMISSION POINT (STACK/VENT) INFORMATION (Optional for unregulated emissions units.)

### **Emission Point Description and Type**

Identification of Point on Plot Plan or Flow Diagram: Attachment IC-FI-C2	2. Emission Point Type Code: 1						
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking: Combustion turbines' gases exhaust through a single stack per turbine.							
4. ID Numbers or Descriptions of Emission Un	nits with this Emission Point in Common:						
5. Discharge Type Code: 6. Stack Height 75 feet	7. Exit Diameter: 19 feet						
8. Exit Temperature: 9. Actual Volum 1,034 °F 2,370,627 actual Volum	metric Flow Rate: 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): 446.3	14. Emission Point Latitude/Longitude Latitude (DD/MM/SS)						
North (km): 3,126	Longitude (DD/MM/SS)						
15. Emission Point Comment: Exit temperature and flow rate given for inlet temperature of 59° F (oil-firing).							

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### EMISSIONS UNIT INFORMATION Section [3] of [4]

### D. SEGMENT (PROCESS/FUEL) INFORMATION

### Segment Description and Rate: Segment 1 of 2

Segment Description (Process/Fuel Type):     Internal Combustion Engines - Electric Generation - Distillate Oil (Diesel) - Turbine							
2. Source Classification Code	e (SCC):	3. SCC Units:					
2-01-001-01	,	Thousand Gallons Burned					
4. Maximum Hourly Rate: 15.45	5. Maximum 44,650		6. Estimated Annual Activity Factor:				
7. Maximum % Sulfur: 0.2	8. Maximum 9	% Ash:	9. Million Btu per SCC Unit: 132				
10. Segment Comment: Million BTU per SCC Unit: 131.52.  Max. Hourly Rate per CT based on peak load max and heat input at 20°F = 2,032 MMBtu/hr = 15.45x10³ gal/hr  See Permit No. 0970014-009-AV Condition III.B.1.  Max. Annual rate per CT based on 38.7% capacity factor for peak load at 59°F = 13,171 gal/hr x 3,390 hr/yr = 44,649x10³ gal/yr  Maximum sulfur content of 0.2% or less, by weight, shall be fired in this turbine at all times. See Permit No. 0970014-009-AV, Condition III.B.3(a).							
Segment Description and Ra	te: Segment 2 of	f <u>2</u>					
1. Segment Description (Process/Fuel Type): Internal Combustion Engines - Electric Generation - Natural Gas - Turbine							
2. Source Classification Code 2-01-002-01	e (SCC):	3. SCC Units: Million Cubic Feet Burned					
4. Maximum Hourly Rate: 1.609	5. Maximum <i>i</i> 5,007	Annual Rate:	6. Estimated Annual Activity Factor:				

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	7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
			1,000
l			
			•

10. Segment Comment:

Max. Hourly Rate per CT based on peak load max heat input at 20°F = 2,032 MMBtu/hr = 2.032

See Permit No. 0970014-009-AV, Condition III.B.1.

Max. Annual Rate per CT based on operation at  $59^{\circ}F$  and 3,390 hr/yr = 1,477 MMBtu/hr /1,000 MMBtu/ SCC x 3,390 hr/yr = 5,007 MMcf /yr See Permit No. 0970014-009-AV, Conditions III-B.1, B.3 and B.4.

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### D. SEGMENT (PROCESS/FUEL) INFORMATION (CONTINUED)

Segment Description and Rate: Segment \_ of \_

1.	Segment Description (Prod	cess/Fuel Type):			
1					
					<u> </u>
2.	Source Classification Code	e (SCC):	3. SCC Units:		
4.	Maximum Hourly Rate:	5. Maximum	Annual Rate:	6.	Estimated Annual Activity Factor:
7.	Maximum % Sulfur:	8. Maximum	% Ash:	9.	Million Btu per SCC Unit:
10.	. Segment Comment:				<del>.</del>
]					
Se	gment Description and Ra	te: Segment _ c	of		·_
1.	Segment Description (Proc	ess/Fuel Type):		٠.٠	
		•			
2.	Source Classification Code	(SCC):	3. SCC Units:		
4.	Maximum Hourly Rate:	5. Maximum A	Annual Rate:		Estimated Annual Activity Factor:
7.	Maximum % Sulfur:	8. Maximum 9	% Ash:	9.	Million Btu per SCC Unit:
10.	Segment Comment:				

### E. EMISSIONS UNIT POLLUTANTS

### List of Pollutants Emitted by Emissions Unit

			····
1. Pollutant Emitted	2. Primary Control	3. Secondary Control	4. Pollutant
	Device Code	Device Code	Regulatory Code
SO <sub>2</sub>			EL
NO <sub>x</sub>	028		EL
PM			EL
PM <sub>10</sub>			EL
СО	· ·		EL
VOC			EL
SAM			EL
<del>.</del> .		· · · · · · · · · · · · · · · · · · ·	
			·
		e e e e	
	·		
	***		

POLLUTANT DETAIL INFORMATION
Page [1] of [7]

# F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: SO <sub>2</sub>	2. Total Percent Efficient	ency of Control:
3. Potential Emissions:	4. Synth	netically Limited?
407 lb/hour 689.9	tons/year x	Yes No
5. Range of Estimated Fugitive Emissions (as to tons/year	applicable):	
6. Emission Factor: 0.2% Sulfur content		7. Emissions Method Code:
Reference: Permit No. 0970014-009-AV, Condition	ion III.B.3	0
8.a. Baseline Actual Emissions (if required):	8.b. Baseline 24-month	Period:
tons/year	From:	Co:
9.a. Projected Actual Emissions (if required):	9.b. Projected Monitori	ng Period:
tons/year		ears
Maximum hourly emissions based on inlet tempe temperature of 59° F and 38.7% capacity factor.  TPY per Permit No. 0970014-009-AV, Condition		
	•	
		•
		·
11. Potential, Fugitive, and Actual Emissions Co	omment:	

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### POLLUTANT DETAIL INFORMATION [1] of [7]

## F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Basis for Allowable Emissions Code:     Other	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.2 % max sulfur	4. Equivalent Allowable Emissions: 407 lb/hour 689.9 tons/year
5. Method of Compliance: Fuel Oil Analysis	•
6. Allowable Emissions Comment (Description Oil-firing at 59° F. Annual emission rate based on 38.7% capacity fa Permit No. 0970014-009-AV, Conditions III.B.5,	ctor.

#### Allowable Emissions 2 of 2

Basis for Allowable Emissions Code:     Other	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 1 grain s/100 cf	4. Equivalent Allowable Emissions: 4.22 lb/hour 7.15 tons/year
5. Method of Compliance: Fuel Analysis	
6. Allowable Emissions Comment (Description Natural gas firing at 59° F.  Annual emission rate based on 38.7% capacity fa Permit No. 0970014-009-AV, Condition III.B.8	

### Allowable Emissions \_\_ of \_\_\_

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Emissions:	f Allowable
3. Allowable Emissions and Units:	4. Equivalent Allowable E	Emissions: tons/year
5. Method of Compliance:		
6. Allowable Emissions Comment (Descrip	tion of Operating Method):	

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POLLUTANT DETAIL INFORMATION Page [2] of [7]

## F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: NO <sub>x</sub>	2. Total Percent	t Efficienc	y of Control:
3. Potential Emissions: 334 lb/hour 566	6 tons/year 4.	Syntheti x Ye	cally Limited?
5. Range of Estimated Fugitive Emissions (as to tons/year	applicable):		_
6. Emission Factor: 42 ppmvd @ 15% O <sub>2</sub>	W. TT DO	7.	Emissions Method Code:
Reference: Permit Limit 0970014-009-AV, Con			
8.a. Baseline Actual Emissions (if required):	8.b. Baseline 24-	-month Pe	riod:
tons/year	From:	To:	
9.a. Projected Actual Emissions (if required):	9.b. Projected M	onitoring	Period:
tons/year	5 years	] 10 years	
No. 2 Fuel oil at 59° F.  Maximum hourly emissions based on inlet tempe inlet temperature of 59° F and 38.7% capacity fa  TPY per Permit No. 0970014-009-AV, Condition	ctor.		`
		,	
		:	
11. Potential, Fugitive, and Actual Emissions Co	omment:		

### F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 2

THOW EDIO DIMEDIOLE TO WHO TO DIMEDIOLE TO	• =
Basis for Allowable Emissions Code:     Other	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions:
42 ppmvd @ 15% O <sub>2</sub>	334 lb/hour 566 tons/year
	00110111001
5. Method of Compliance:	
Annual Compliance Test, EPA Method 20 or	7E.
6. Allowable Emissions Comment (Description	of Operating Method):
Oil-firing at 59° F.	
Annual emission rate based on 38.7% capacity fa	ctor.
Permit No. 0970014-009-AV, Conditions III.B.19,	
Allowable Emissions Allowable Emissions 2 o	f <u>2</u>
1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable
Other	Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions:
· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·
25 ppmvd @ 15% O <sub>2</sub>	149 lb/hour 252.6 tons/year
5. Method of Compliance:	
Annual Compliance Test, EPA Method 20 or	<b>7E.</b>
6 Allowable Emissions Comment (Description	of Operating Method):
6. Allowable Emissions Comment (Description	of Operating Method):
Natural gas firing at 59° F.	
Annual emission rate based on 38.7% capacity fa	ctor.
Permit No. 0970014-009-AV, Condition III.B.8.	
Allowable Emissions Allowable Emissions	of
1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable
	Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions:
or and animologic mid olim.	lb/hour tons/year
	10/110ti tolls/year
5. Method of Compliance:	
•	

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6. Allowable Emissions Comment (Description of Operating Method):

# F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: PM	2. Total Percent Efficient	ency of Control:
3. Potential Emissions:	· · · · · · · · · · · · · · · · · · ·	netically Limited?
17 lb/hour 29	9 tons/year x	Yes No
5. Range of Estimated Fugitive Emissions (as to tons/year	s applicable):	
6. Emission Factor: 0.01 lb/MMBtu		7. Emissions Method Code:
Reference: Permit No. 0970014-009-AV, Condition		0
8.a. Baseline Actual Emissions (if required):	8.b. Baseline 24-month	Period:
tons/year	From:	To:
9.a. Projected Actual Emissions (if required):	9.b. Projected Monitori	ng Period:
tons/year		ears
Maximum hourly emissions based on inlet tempe inlet temperature of 59° F and 38.7% capacity fa TPY per Permit No. 0970014-009-AV, Condition	ctor.	
•		
		•
11. Potential, Fugitive, and Actual Emissions Co	omment:	

# F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions	Allowable Emissions	1	of	2

Basis for Allowable Emissions Code:     Other	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.01 lb/MMBtu	4. Equivalent Allowable Emissions: 17 lb/hour 29 tons/year
5. Method of Compliance: Annual Compliance Test, EPA Method 9	
6. Allowable Emissions Comment (Descriptio Oil-firing at 59° F. Annual emission rate based on 38.7% capacity for (EPA Method 5) not required. Permit No. 0970014-009-AV, Conditions III.B.15	actor. If VE < 10% opacity, PM compliance test
Allowable Emissions 2	of <u>2</u>
Basis for Allowable Emissions Code:     Other	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.01 lb/MMBtu	4. Equivalent Allowable Emissions: 7.5 lb/hour 12.71 tons/year
5. Method of Compliance: Annual Compliance Test, EPA Method 9	
6. Allowable Emissions Comment (Descriptio	n of Operating Method):
Natural gas firing at 59° F.  Annual emission rate based on 38.7% capacity for the second of the sec	Method 5) not required

### Allowable Emissions \_\_ of \_

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description	of Operating Method):

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# F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: PM <sub>10</sub>	2. Total Percent Efficiency of Control:
3. Potential Emissions:	4. Synthetically Limited?
	9 tons/year x Yes No
5. Range of Estimated Fugitive Emissions (astrons/year	s applicable):
6. Emission Factor: 0.01 lb/MMBtu	7. Emissions Method Code:
Reference: Permit No. 0970014-009-AV, Condi	tion III.B.8
8.a. Baseline Actual Emissions (if required):	8.b. Baseline 24-month Period:
tons/year	From: To:
9.a. Projected Actual Emissions (if required):	9.b. Projected Monitoring Period:
tons/year	☐ 5 years ☐ 10 years
No. 2 Fuel oil at 59° F.  Maximum hourly emissions based on inlet tempe inlet temperature of 59° F and 38.7% capacity fa TPY per Permit No. 0970014-009-AV, Condition	ctor.
11. Potential, Fugitive, and Actual Emissions Co	omment:

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# F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions A	Allowable	<b>Emissions</b>	1	of 2	!
-----------------------	-----------	------------------	---	------	---

Basis for Allowable Emissions Code:     Other	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions:
0.01 lb/MMBtu	17 lb/hour 29 tons/year
5. Method of Compliance:	
Annual Compliance Test, EPA Method 9	
6. Allowable Emissions Comment (Descriptio	n of Operating Method):
Oil-firing at 59° F.	
Annual emission rate based on 38.7% capacity for test (FRA Method 5) not required	actor. If VE $< 10\%$ opacity, PM <sub>10</sub> compliance
test (EPA Method 5) not required.  Permit No. 0970014-009-AV, Conditions III.B.15	5 and III.B.17.
Terme ive of four object of the conditions in the	
AD 11 D 1 1 2 1 2	5.0
Allowable Emissions 2	
1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable
Other	Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions:
0.01 lb/MMBtu	7.5 lb/hour 12.71 tons/year
5. Method of Compliance:	
Annual Compliance Test, EPA Method 9	
6. Allowable Emissions Comment (Descriptio	n of Operating Method):
Natural gas firing at 59° F.	
Annual emission rate based on 38.7% capacity fa	actor. If VE $< 10\%$ Opacity, PM <sub>10</sub> compliance
test (EPA Method 5) not required. Permit No. 0970014-009-AV Conditions III.B.15	and III D 17
Fernit 140. 0970014-009-A v Conditions 111.B.15	and III.D.17.
Allowable Emissions Allowable Emissions	<u>of</u>
1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable
	Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions:
	lb/hour tons/year

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5. Method of Compliance:

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6. Allowable Emissions Comment (Description of Operating Method):

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# F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

2. Total Percent Efficiency of Control:				
	4. Synth	etically Limited?		
79 lb/hour 134 tons/year x				
s applicable):				
		7. Emissions Method Code:		
		0		
•	•			
		`o:		
9.b. Projected	Monitori	ng Period:		
5 years	☐ 10 ye	ars		
No. 2 Fuel oil at 59° F.  Maximum hourly emissions based on inlet temperature of 59° F. Annual emissions based on inlet temperature of 59° F and 38.7% capacity factor.  TPY per Permit No. 0970014-009-AV, Condition III.B.8 and AC 49-203114/PSD-FL-180(A).				
	49-203114	/PSD-FL-180(A).		
	49-203114	/PSD-FL-180(A).		
	49-203114	/PSD-FL-180(A).		
	<b>49-203</b> 114	/PSD-FL-180(A).		
	<b>49-203</b> 114	/PSD-FL-180(A).		
	49-203114	/PSD-FL-180(A).		
	49-203114	/PSD-FL-180(A).		
	tion III.B.8  8.b. Baseline From:  9.b. Projected  5 years  erature of 59° F.	as applicable):  tion III.B.8  8.b. Baseline 24-month From:  9.b. Projected Monitorin  5 years  10 years  erature of 59° F. Annual e		

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### F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -**ALLOWABLE EMISSIONS**

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable	<b>Emissions</b>	Allowable	<b>Emissions</b>	1	of 2	į

Basis for Allowable Emissions Code:     Other	2. Future Effective Date of Allowable Emissions:
Allowable Emissions and Units:     25 ppmvd	4. Equivalent Allowable Emissions: 79 lb/hour 134 tons/year
5. Method of Compliance: Annual Compliance Test, EPA Method 10	
6. Allowable Emissions Comment (Description Oil-firing at 59° F.  Annual emission rate based on 38.7% capacity for Permit No. 0970014-009-AV, Condition III.B.18.	actor.
Allowable Emissions, Allowable Emissions 2	of 2

Basis for Allowable Emissions Code:     Other	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 10 ppmvd	4. Equivalent Allowable Emissions: 30.9 lb/hour 52.4 tons/year
10 hbinaa	30.9 10/110u1 52.4 tolls/year
5. Method of Compliance: Annual Compliance Test, EPA Method 10	
6. Allowable Emissions Comment (Description	of Operating Method):
Natural gas firing at 59° F. Annual emission rate based on 38.7% capacity fa Permit No. 0970014-009-AV, Condition III.B.18.	

### Allowable Emissions \_\_ of \_\_\_

1.	Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3.	Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5.	Method of Compliance:	
6.	Allowable Emissions Comment (Description	of Operating Method):

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# F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Pollutant Emitted:     VOC	2. Total Percent Efficiency of Control:
3. Potential Emissions:	4. Synthetically Limited?
9 lb/hour 15.3	3 tons/year x Yes No
5. Range of Estimated Fugitive Emissions (as tons/year	s applicable):
6. Emission Factor: 9 lb/hr	7. Emissions Method Code:
Reference: Permit No. 0970014-009-AV, Condit	
8.a. Baseline Actual Emissions (if required):	8.b. Baseline 24-month Period:
tons/year	From: To:
9.a. Projected Actual Emissions (if required):	9.b. Projected Monitoring Period:
tons/year	☐ 5 years ☐ 10 years
No. 2 Fuel oil at 59° F.  Maximum hourly emissions based on inlet tempe inlet temperature of 59° F and 38.7% capacity fa  TPY per Permit No. 0970014-009-AV, Condition	ctor.
11 December 1 December 1 April December 1	
11. Potential, Fugitive, and Actual Emissions Co	Julitent.

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### F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissi	ons Allowable	<b>Emissions</b>	1	of	2
------------------	---------------	------------------	---	----	---

Basis for Allowable Emissions Code:     Other	2. Future Effective Date of Allowable Emissions:			
3. Allowable Emissions and Units: 9 lb/hr	4. Equivalent Allowable Emissions: 9 lb/hour 15.3 tons/year			
5. Method of Compliance: Annual Compliance Test, EPA Method 25A				
6. Allowable Emissions Comment (Description of Operating Method): Oil-firing at 59° F. Annual emission rate based on 38.7% capacity factor. If compliance with the CO allowables in permit is demonstrated, testing for VOCs is not required. Permit No. 0970014-009-AV, Condition III.B.12.				

#### Allowable Emissions 2 of 2

1.	Basis for Allowable Emissions Code: Other	2. Future Effective Date of Allowable Emissions:		te of Allowable
3.	Allowable Emissions and Units: 5.3 lb/hr	4. Equivalent Allowable Emissions: 5.3 lb/hour 8.98 tons/ye		ole Emissions: 8.98 tons/year

5. Method of Compliance:
Annual Compliance Test, EPA Method 25A

6. Allowable Emissions Comment (Description of Operating Method):

Natural gas firing at 59° F.

Annual emission rate based on 38.7% capacity factor. If compliance with the CO allowables in permit is demonstrated, testing for VOCs is not required.

Permit No. 0970014-009-AV, Condition III.B.12.

#### Allowable Emissions Allowable Emissions \_\_ of \_

1. Basis for Allowable Emissions Code: 2. Future Effective Date of Allowable Emissions:	idle
3. Allowable Emissions and Units:  4. Equivalent Allowable Emission	s:
lb/hour tons/y	ear
5. Method of Compliance:	

6. Allowable Emissions Comment (Description of Operating Method):

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# F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

### Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

Pollutant Emitted:     SAM	2. Total Percent Efficiency of Control:
3. Potential Emissions:	4. Synthetically Limited?
28 lb/hour 47.5	tons/year X Yes No
5. Range of Estimated Fugitive Emissions (as	applicable):
to tons/year	
6. Emission Factor: maximum 0.2% Sulfur by	weight 7. Emissions Method Code:
Reference: Permit No. 0970014-009-AV, Condition	
8.a. Baseline Actual Emissions (if required):	8.b. Baseline 24-month Period:
tons/year	From: To:
9.a. Projected Actual Emissions (if required):	9.b. Projected Monitoring Period:
tons/year	5 years 10 years
10. Calculation of Emissions:  No. 2 Fuel oil at 59° F.	
,	
No. 2 Fuel oil at 59° F.  Maximum hourly emissions based on inlet tempe temperature of 59° F and 38.7% capacity factor.	
No. 2 Fuel oil at 59° F.  Maximum hourly emissions based on inlet tempe temperature of 59° F and 38.7% capacity factor.	
No. 2 Fuel oil at 59° F.  Maximum hourly emissions based on inlet tempe temperature of 59° F and 38.7% capacity factor.	
No. 2 Fuel oil at 59° F.  Maximum hourly emissions based on inlet tempe temperature of 59° F and 38.7% capacity factor.	
No. 2 Fuel oil at 59° F.  Maximum hourly emissions based on inlet tempe temperature of 59° F and 38.7% capacity factor.	
No. 2 Fuel oil at 59° F.  Maximum hourly emissions based on inlet tempe temperature of 59° F and 38.7% capacity factor.	III.B.8 and AC 49-203114/PSD-FL-180(A).

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POLLUTANT DETAIL INFORMATION Page [7] of [7]

# F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

### Allowable Emissions 1 of 2

Basis for Allowable Emissions Code:     Other	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions:
maximum 0.2% Sulfur by weight	28 lb/hour 41 tons/year
5. Method of Compliance:	
Annual Compliance Test, EPA Method 8	
6. Allowable Emissions Comment (Description	of Operating Method):
Oil-firing at 59° F.	
Annual emission rate based on 33% capacity factor	or (0.2% max. sulfur content). Capacity factor
38.7%, if sulfur content 0.16% or less.	
If fuel oil sulfur limits met, SAM test not required	<b>l.</b>
Permit No. 0970014-009-AV, Condition III.B.16.	
	•

#### Allowable Emissions 2 of 2

			· · · · · · · · · · · · · · · · · · ·	
1.	Basis for Allowable Emissions Code: Other	2.	Future Effective Date of Emissions:	f Allowable
3.	Allowable Emissions and Units:	4.	Equivalent Allowable E	· ·
	0.64 lb/hr		<b>0.64</b> lb/hour	1.08 tons/year
5.	Method of Compliance:			
	Annual Compliance Test, EPA Method 8		•	,
		•		
6.	Allowable Emissions Comment (Description	of (	Operating Method):	
Na	tural gas firing at 59° F.			
An	nual emission rate based on 38.7% capacity fac	ctor.		
If f	If fuel oil sulfur limits met, SAM test not required.			
Per	Permit No. 0970014-009-AV, Condition III.B.16.			
	•			

### Allowable Emissions \_\_ of \_\_\_

Basis for Allowable Emission	ons Code: 2. Future Effe Emissions:		
3. Allowable Emissions and U	nits:  4. Equivalent lb/hou	Allowable Emissions: r tons/year	
5. Method of Compliance:			
6. Allowable Emissions Comm	nent (Description of Operating M	ethod):	

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### G. VISIBLE EMISSIONS INFORMATION

Complete if this emissions unit is or would be subject to a unit-specific visible emissions limitation.

<u>Visible Emissions Limitation:</u> Visible Emissions Limitation <u>1</u> of <u>2</u>

1. Visible Emissions Subtype:	2. Basis for Allowable Opacity:
VE10	Rule X Other
Allowable Opacity:     Normal Conditions:     10 % Ex     Maximum Period of Excess Opacity Allower	cceptional Conditions: 20 % min/hour
4. Method of Compliance: Annual Compliance Test, EPA Method 9	
5. Visible Emissions Comment: Visible emission limit under normal conditions a for other loads. No VE test < 400 hr/yr except for period of one y 297.310(7)(a)4. and 8., F.A.C.]	
Visible Emissions Limitation: Visible Emissi	
Visible Emissions Subtype:     VE99	2. Basis for Allowable Opacity:  x Rule   Other
Allowable Opacity:     Normal Conditions:	ceptional Conditions: 100 % ed: 60 min/hour
4. Method of Compliance: Best Operational Practices	·
5. Visible Emissions Comment: Rule 62-210.700, F.A.C. Maximum period of excestart up, shutdown and malfunction.	ess opacity allowed 2 hours in any 24 hours for

79

### H. CONTINUOUS MONITOR INFORMATION

Complete if this emissions unit is or would be subject to continuous monitoring.

Continuous Monitoring System: Continuous Monitor 1 of 2

Parameter Code:     EM	2. Pollutant(s): NO <sub>x</sub>
3. CMS Requirement:	x Rule  Other
4. Monitor Information  Manufacturer:  Model Number:	Serial Number:
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment: CMS will operate to monitor and record the fue being fired. [40 CFR 60.334(a)]	
CEM data may be used in lieu of water-to-fuel	ratio monitoring.
Continuous Monitoring System: Continuous	Monitor 2 of 2
Parameter Code:     EM	2. Pollutant(s): NO <sub>x</sub>
3. CMS Requirement:	x Rule Other
4. Monitor Information  Manufacturer:	
Model Number:	Serial Number:
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment:  Monitor complies with 40 CFR 75, Append	ix E.

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#### H. CONTINUOUS MONITOR INFORMATION (CONTINUED)

Complete if this emissions unit is or would be subject to continuous monitoring.

Continuous Monitoring System: Continuous Monitor \_\_\_ of \_\_\_ 1. Parameter Code: 2. Pollutant(s): 3. CMS Requirement: □ Rule Other 4. Monitor Information... Manufacturer: Model Number: Serial Number: 6. Performance Specification Test Date: 5. Installation Date: 7. Continuous Monitor Comment: Continuous Monitoring System: Continuous Monitor \_\_\_ of \_\_\_ 1. Parameter Code: 2. Pollutant(s): 3. CMS Requirement: Rule Other 4. Monitor Information... Manufacturer: Serial Number: Model Number: 6. Performance Specification Test Date: 5. Installation Date: 7. Continuous Monitor Comment:

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#### I. EMISSIONS UNIT ADDITIONAL INFORMATION

### Additional Requirements for All Applications, Except as Otherwise Stated

1.	Process Flow Diagram (Required for all permit applications, except Title V air operation permit
	revision applications if this information was submitted to the department within the previous five
	years and would not be altered as a result of the revision being sought)
<u></u>	x Attached, Document ID: IC-EU2-I1 Previously Submitted, Date
2.	
	operation permit revision applications if this information was submitted to the department within
	the previous five years and would not be altered as a result of the revision being sought)
	X Attached, Document ID: IC-EU2-I2 Previously Submitted, Date
3.	Detailed Description of Control Equipment (Required for all permit applications, except Title
	V air operation permit revision applications if this information was submitted to the department
.	within the previous five years and would not be altered as a result of the revision being sought)
	X Attached, Document ID: IC-EU2-I3 Previously Submitted, Date
4.	Procedures for Startup and Shutdown (Required for all operation permit applications, except
	Title V air operation permit revision applications if this information was submitted to the
	department within the previous five years and would not be altered as a result of the revision being
	sought)
	X Attached, Document ID: IC-EU2-I4 Previously Submitted, Date
	☐ Not Applicable (construction application)
5.	Operation and Maintenance Plan (Required for all permit applications, except Title V air
	operation permit revision applications if this information was submitted to the department within
	the previous five years and would not be altered as a result of the revision being sought)
	Attached, Document ID: Previously Submitted, Date
	x Not Applicable
6.	Compliance Demonstration Reports/Records
	X Attached, Document ID: IC-EU3-I6
	Test Date(s)/Pollutant(s) Tested: (08/06) - Opacity, NOx, SO2/SAM, CO
,	Previously Submitted, Date:
	Test Date(s)/Pollutant(s) Tested:
	To be Submitted, Date (if known):
	Test Date(s)/Pollutant(s) Tested:
1	☐ Not Applicable
	Note: For FESOP applications, all required compliance demonstration records/reports must be
	submitted at the time of application. For Title V air operation permit applications, all required
	compliance demonstration reports/records must be submitted at the time of application, or a
	compliance plan must be submitted at the time of application.
7.	Other Information Required by Rule or Statute  Attached, Document ID:   X   Not Applicable

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### EMISSIONS UNIT INFORMATION

Section [3]

of [4]

Additional Rec	quirements for A	Air Construction	<b>Permit Applications</b>	-N/A
----------------	------------------	------------------	----------------------------	------

1. Control Technology Review and Analysis (Rules 62-212.400(10) and 62-212.500(7),
F.A.C.; 40 CFR 63.43(d) and (e))
Attached, Document ID: Not Applicable
2. Good Engineering Practice Stack Height Analysis (Rule 62-212.400(4)(d), F.A.C., and
Rule 62-212.500(4)(f), F.A.C.)
Attached, Document ID: Not Applicable
3. Description of Stack Sampling Facilities (Required for proposed new stack sampling
facilities only)
Attached, Document ID: Not Applicable
Additional Requirements for Title V Air Operation Permit Applications
1. Identification of Applicable Requirements
X Attached, Document ID: <u>IC-EU2-IV1</u>
2. Compliance Assurance Monitoring
Attached, Document ID: X Not Applicable
3. Alternative Methods of Operation
X Attached, Document ID: <u>IC-EU1-IV3</u> Not Applicable
4. Alternative Modes of Operation (Emissions Trading)
Attached, Document ID: Not Applicable
5. Acid Rain Part Application
★ Certificate of Representation (EPA Form No. 7610-1)
X Copy Attached, Document ID: <u>IC-EU1-IV1</u>
x Acid Rain Part (Form No. 62-210.900(1)(a))
X Attached, Document ID: IC-EU2-IV5 Previously Submitted, Date:
Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)
Attached, Document ID: Previously Submitted, Date:
New Unit Exemption (Form No. 62-210.900(1)(a)2.)
Attached, Document ID: Previously Submitted, Date: Previou
Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)  Attached, Document ID: Previously Submitted, Date:
Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.)
Attached, Document ID: Previously Submitted, Date:
Phase II NOx Averaging Plan (Form No. 62-210.900(1)(a)5.)
Attached, Document ID: Previously Submitted, Date:
Not Applicable
Additional Requirements Comment

Attachment IC-EU3-I6 Compliance Test Report

### Air Emissions Compliance Test Report

Progress Energy Intercession City Facility Units 11, 12, 13 and 14 Intercession City, Florida

C.E.M. Solutions Project No. 2697

Testing Completed: August 2006

Client Purchase Order Number: 49782 C.E.M. Solutions, Inc Report Number: 20-2697-11121314-001

> C.E.M. Solutions, Inc. 7990 W. Gulf to Lake Hwy. Crystal River, Florida 34429 Phone: 352-564-0441

### Plant's Authorization and Validity Statement

For Julie thomas

I hereby certify that to the best of my knowledge, all applicable field procedures and calculations comply with Florida Department of Environmental Protection requirements, and all test data and plant operating data are true and correct.

Julie Turner

Plant Manager

Date

### Project Background

Name of Source Owner:

Progress Energy

Address of Owner:

One Power Plaza

100 Central Ave.

St. Petersburg, Florida 33701

Source Identification:

Oris Code: 8049

Facility ID: 0970014

Emissions Unit: -011, -018, -019, -20

Location of Source:

Osceola County, Florida

Type of Operation:

SIC Code: 4911

Tests Performed:

Method 1 - Traverse Points

Method 3A - Determination of Oxygen and Carbon Dioxide

Method 7E - Determination of Nitrogen Oxides Method 9 - Visual Determination of Opacity Method 10 - Determination of Carbon Monoxide

Method 19 - Determination of Nitrogen Oxide Emissions Rates

ASTM D-240 - Fuel Analysis (by others)

ASTM D-1552 - Sulfur in Petroleum Products (by others)

Test Supervisor:

Mr. Joseph Conti

Date(s) Tests Conducted:

August 24, 2006: Gas RATA and Compliance, Units 12 and 14

August 30, 2006: Oil Compliance, Unit 11

August 31, 2006: Gas RATA and Compliance, Unit 13

Site Test Coordinator:

Mr. James T. Long

State Regulatory Observers:

Mr. Gary D. Kuberski
FDEP Central District
Present on August 30, 2006

### C.E.M. Solutions, Inc Test Personnel

Project Field Manager:

Mr. Joseph Conti

Test Technicians:

Mr. Charles Horton

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## 1.0 Introduction

Progress Energy, Florida (PEF) retained C.E.M. Solutions, Inc. to perform source emissions testing on Units 11, 12, 13 and 14 stationary combustion turbines (CT) located at its facility in Intercession City, Florida.

The test program was conducted in order to evaluate the compliance status of Unit 11, 12, 13 and 14's exhaust, while firing pipeline natural gas (Units 12, 13 and 14) and No. 2 distillate fuel oil (Unit 11), in respect to the United States Environmental Protection Agency (USEPA) Standards of Performance for Stationary Turbines (Title 40 of the Code of Federal Regulations, Part 60, Subpart GG) and the Florida Department of Environmental Protection's (FDEP's) permit number 0970014-007-AV. The test program and results are presented and discussed in this report.

James T. Long of Progress Energy's Environmental Services Section coordinated plant operations throughout the test program. All testing was conducted in accordance with test methods promulgated by the USEPA.

Unit 11, 12, 13 and 14 of the Intercession City Facility were found to be in compliance with permit number 0970014-007-AV. Table 1 summarizes the results of the compliance tests conducted on Units 11, 12, 13 and 14.

# Table 1: Summary of Compliance Test Progress Energy Intercession City Facility Unit 11, 12, 13 and 14

Pollutant	Unit -	. 1 Emission kimit - 2 -	Measured Value	Pass/Fail
SO₂	11	0.2 % by weight for oil	0.06	PASS
СО	11	25 ppmvd and 79.0 lbs/hr for oil	0.9 2.2	PASS
Visual Emission	11	10% for oil	0.0%	PASS
NO <sub>X</sub>	12	$RA \le 10.0\% \text{ or}$ ± 0.020 lb/mmBtu <sup>1</sup>	0.002 lb/mmBtu	PASS
SO <sub>2</sub>	12	1 grain/100 dscf for gas	0.072	PASS
СО	12	20 ppmvd @ 15% O <sub>2</sub> , and 43.0 lbs/hr for gas	6.9 12.5	PASS
Visual Emission	12	10% for gas	0.0%	PASS
NOx	13	RA ≤ 10.0% or ± 0.020 lb/mmBtu <sup>1</sup>	0.001 lb/mmBtu	PASS
SO <sub>2</sub>	13	1 grain/100 dscf for gas	0.044	PASS
СО	13	20 ppmvd @ 15% O <sub>2</sub> , and 43.0 lbs/hr for gas	9.7 18.0	PASS
Visual Emission	13	10% for gas	0.0%	PASS
NOx	14	$RA \le 10.0\% \text{ or}$ ± 0.020 lb/mmBtu <sup>1</sup>	0.002 lb/mmBtu	PASS
SO <sub>2</sub>	14	1 grain/100 dscf for gas	0.072	PASS
СО	14	20 ppmvd @ 15% O <sub>2</sub> , and 43.0 lbs/hr for gas	3.7 7.1	PASS
Visual Emission	14	10% for gas	0.0%	PASS

<sup>1 0.020</sup> lb/mmBtu applies to low emitters

# 2.0 Facility Description

Intercession City's unit P11 is a Siemens Model V84.3 combustion turbine having a nominal generating capacity of 171 MW. Primary fuel is new No. 2 low sulfur fuel oil.

The Intercession City Units P12 through P14 are General Electric Model 7EA gas turbines each with a nominal generation capacity of 91 MW while firing natural gas or distillate oil.

# 2.1 Process Equipment

Unit P11 has a maximum heat input rating at 59° Fahrenheit (F) of 1477 MMbtu/hour. NO<sub>X</sub> emissions are controlled with water injection. SO<sub>2</sub> emissions are controlled by burning No. 2 low sulfur oil. Emissions are exhausted through a 96 ft. stack having an inner diameter of 19 ft.

Units 12, 13 and 14 each have a maximum heat input rating that shall not exceed 905 million Btu per hour (mmBtu/hr) when firing natural gas, nor 978 mmBtu/hr when firing No. 2 distillate fuel oil. Calculations are based on the lower heating value (LHV) of each fuel to each Unit.

Control measures and equipment on Units 12, 13 and 14 consists of firing relatively clean fuel, good combustion practices and water injection for emissions control. Emissions are exhausted through separate 56 ft. stacks, each having inner dimensions of 8.7 ft. by 16.1 ft.

# 2.2 Regulatory Requirements

PEF is required to conduct annual emissions tests for the following pollutants while operating at 90-100 percent of the heat input curve. Emission testing was conducted to determine the compliance status of the following pollutants:

- NO<sub>X</sub> in lbs/mmBtu RATA
- SO<sub>2</sub> in % S by volume
- CO in pounds per hour
- Opacity in percent
- H<sub>2</sub>SO<sub>4</sub> demonstrated by sulfur analysis

In accordance with permit condition C.25, ongoing NO<sub>X</sub> compliance is determined by the Continuous Emissions Monitoring System (CEMS) located on

the CT stack. The CEMS was also evaluated during the test program to determine monitoring accuracy. Unit 11 did not require a RATA to be conducted on the  $NO_x$  analyzer, because it was conducted earlier in the year.

Table 2 and 3 summarizes the applicable emissions and CEMS accuracy limits for Units 11, 12, 13 and 14.

Table 2: Summary of Emission Limits for Unit 11
Progress Energy
Intercession City Facility
Unit 11

Rollutant	Control Technology	Emission Limit	Permit Condition 2
SO <sub>2</sub> and H <sub>2</sub> SO <sub>4</sub>	Low Sulfur Fuels	0.2% S by weight for oil	B.8
СО	Good Combustion	25 ppmvd and 79.0 lbs/hr for oil	B.8
Visual Emission	Good Combustion	≤20% for oil	B.8

<sup>1 0.020</sup> lb/mmBtu applies to low emitters

Table 3: Summary of Emission Limits for Units 12 through 14
Progress Energy
Intercession City Facility
Units 12, 13 and 14

Pollutant	Control Technology	Emission Limit	Remit Condition
NOx	Water Injection	≤10% Error on CEM RATA or ± 0.020 lb/mmBtu¹	C.12
SO <sub>2</sub> and H <sub>2</sub> SO <sub>4</sub>	Low Sulfur Fuels	1 grain/100 dscf for gas	C.13
СО	Good Combustion	20 ppmvd @ 15% O <sub>2</sub> and 43.0 lbs/hr for gas	C.11
Visual Emission	Good Combustion	≤10% for gas	C.16

<sup>1 0.020</sup> lb/mmBtu applies to low emitters

# 3.0 Test Program/Operating Conditions

Emissions tests were completed at the Intercession City Facility to determine the compliance status of Units 11, 12, 13 and 14 on August 24, 2006 (Units 12 and 14), August 30, 2006 (Unit 11) and on August 31, 2006 (Unit 13).

CO, and Opacity testing was performed concurrently with a 40CFR, Part 75 Relative Accuracy Test Audit on Units 12, 13 and 14 at base load while firing natural gas. CO and Opacity were also tested on Unit 11 while operating at base load and while firing distillate fuel.

SO<sub>2</sub> emissions were calculated from fuel analysis and fuel flow rates while the units were operating at base load.

Turbine operating data was collected and provided by facility personnel during the entire test program. Data provided include, but was not limited to:

- Unit Generation (MW)
- Combustor inlet air temperature
- Fuel flow rate

Table 4 presents the percentage of the maximum heat input, for each Unit, during each test.

Table 4: Heat Input During Test
Progress Energy
Intercession City Facility
Units 11, 12, 13 and 14

Unit/Euel	cCalculated o	And the same of th	Inlet Temp.	Control of the Contro
	Heat Imput	Heat Input	°F	Max H.I.
	mmBtu/hr	Philadel Control of the Control of t	00	00.7%
11, oil	1656	1825	80	90.7%
12, gas	815	840	88	97.0%
13, gas	824	845	87	97.5%
14, gas	864	845	87	102.2%

CT operating data and heat input curve can be viewed in Appendix A.

## 4.0 Test Methods

All testing was performed in accordance with methods approved by the USEPA and FDEP. The following discusses the methods, as well as quality assurance and sample handling procedures.

# 4.1 Instrument Analyzer Procedures

NO<sub>x</sub> and CO reference method (RM) data were determined using instrument analyzer procedures. In addition, diluent gas concentrations of oxygen (O<sub>2</sub>) and carbon dioxide (CO<sub>2</sub>) were also measured via instrumental methods. CO<sub>2</sub> data was used to calculate NO<sub>x</sub> lbs/mmBtu for the RATA conducted on the Combustion Turbine CEMS.

Mathematical equations used to determine calculated emissions standards are located in Appendix B.

Table 5 summarizes the EPA methods and instrumentation:

Table 5: Summary of EPA Instrument Reference Methods
Progress Energy
Intercession City Facility
Units 11, 12, 13 and 14

Pollutant <sub>i</sub>	ERA Method	Instrument	Serial Number
Unit 11, O <sub>2</sub>	3A	Servomex 1440	1420D/3379
Unit 11,CO2	3A	Servomex 1440	1415D/3379
Unit 11, CO	10	TEI Model 48C	48C-74094-375
Unit 12, NO <sub>X</sub>	7E	TEI Model 42CHL	42CHL-62888-337
Unit 12, O2	3A	Servomex 1440	1420D/3379
Unit 12, CO₂	3A	Servomex 1440	1415D/3379
Unit 12, CO	10	TEI Model 48C	48C-74094-375
Unit 13, NOx	7E	TEI Model 42CHL	42CHL-62888-337
Unit 13, O <sub>2</sub>	3A	Servomex 1440	1420D/3379
Unit 13, CO₂	3A	Servomex 1440	1415D/3379
Unit 13, CO	10	TEI Model 48C	48C-74094-375
Unit 14, NO <sub>X</sub>	7E	TEI Model 42CHL	42CHL-74122-375
Unit 14, O <sub>2</sub>	3A	Thermox	C114306
Unit 14, CO <sub>2</sub>	3A	CAI ZRH1	N3G2200T
Unit 14, CO	10	TEI Model 48C	48C-68844-361

All reference method analyzers used meet or exceed applicable performance specifications detailed in the appropriate method.

Gas samples were continuously extracted from the stack by a gas sample probe. Samples were then transported to a gas sample conditioner via a heated sample line operating at 250°F or above. The gas sample conditioner lowers the dew point of the sample gas to approximately 5°C through minimum interference heat exchangers. The dry, cool sample is then sent to the gas analyzers, located in the environmentally controlled test trailer for analysis by the reference method analyzers.

Instrument outputs were recorded continuously with a Windows compatible personal computer, compiled into 15 second averages, and stored in a database for future reference.

Instrument ranges and calibration gases were chosen in accordance with each pollutant's applicable EPA method. Instrument ranges and calibration gases used are shown in Table 6:

Table 6: Reference Method Instrument Ranges and Calibration Gases
Progress Energy
Intercession City Facility
Units 11, 12, 13 and 14

: Rollutant	Test Location	Instrument Span	Callibration == :Gasesa
NO <sub>X</sub>	Units 12, 13 and 14	20.0 ppm	0.0 ppm NO 8.1 ppm NO 16.2 ppm NO
CO <sub>2</sub>	Units 11 and 13	20 %	0.0 % CO <sub>2</sub> 10.8 % CO <sub>2</sub> 17.7 % CO <sub>2</sub>
CO <sub>2</sub>	Units 12 and 14	20 %	0.0 % CO <sub>2</sub> 9.81 % CO <sub>2</sub> 17.7 % CO <sub>2</sub>
O <sub>2</sub>	Units 11 and 13	25 %	0.0 % O <sub>2</sub> 13.0 % O <sub>2</sub> 20.9 % O <sub>2</sub>
O <sub>2</sub>	Units 12 and 14	25 %	0.0 % O <sub>2</sub> 12.5 % O <sub>2</sub> 20.9 % O <sub>2</sub>
СО	Units 11 and 13	50.0 ppm	0.0 ppm CO 27.2 ppm CO 46.1 ppm CO
СО	Units 12 and 14	50.0 ppm	0.0 ppm CO 23.6 ppm CO 46.1 ppm CO

<sup>&</sup>lt;sup>a</sup> Concentrations of NO, CO, CO<sub>2</sub>, and O<sub>2</sub> are in a balance of purified nitrogen ( $N_2$ ). All analyzers were zeroed with ultra high purity  $N_2$ . All calibration gases have been certified to NIST traceable standards.

Calibration gas Certificates of Analysis can be found in Appendix C.

# 4.1.1 Sampling Location/Traverse Points/Test Run Duration

Unit P11's exhaust stack inner diameter, at the sample location, is 19 feet (228"). The emissions sampling location is 86 feet downstream from the nearest flow disturbance, and 10.5 feet upstream from the stack exhaust.

Unit 12, 13 and 14's exhaust stack depth, at the sample location, is 8.7 feet (104"). The emissions sampling location is 15 feet downstream from the nearest flow disturbance, and 10 feet upstream from the stack exhaust. A diagram of the sample location can be viewed in Appendix D.

#### 4.1.1.1 Stratification Test

A gaseous stratification test was completed during the prior year's annual compliance test. It was conducted in accordance with 40CFR, Part 75, Appendix A, Section 6.5.6.1.

Traverse test results are located in Appendix E.

### 4.1.1.2 Reference Measurement Point

A single reference method measurement point was used during the test program, located no less than 1.0 meter from the stack wall along one of the measurement lines used in the stratification test in accordance with 40CFR, Part 75, Appendix A, Section 6.5.6(b)(4).

#### 4.1.1.3 Test Run Durations

Units 12, 13 and 14 PNG compliance and CEMS RATA test runs were conducted simultaneously. Each RATA run was 21 minutes in duration. Each compliance test run is compiled from three consecutive RATA runs (total of 63 minutes).

For the Unit 11 oil compliance test, samples were taken from a single reference method measurement point for a duration of 60 minutes.

# 4.1.2 Quality Assurance/Quality Control Procedures

All sampling, analytical, and Quality Assurance/Quality Control (QA/QC) procedures outlined in the EPA methods were followed. All test equipment was calibrated before or during use in the field. Interference checks, response time checks, and NO<sub>2</sub> to NO converter checks were performed on each instrumental analyzer, as applicable, before field use. In the field, each analyzer and the entire

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C.E.M. Solutions, Inc. Report 20-2697-11121314-001 Last Updated: 9/22/2006 instrument measurement system was checked for system bias before and following each test run using the calibration gases listed in Table 6.

Appendix E contains the QA/QC checks.

# 4.2 Determination of Opacity

USEPA Method 9 was utilized to determine opacity emissions.

Opacity observations were performed by a FDEP certified visual emissions reader. Readings were taken at 15 second intervals and reduced into six minute averages as required by the applicable EPA standard. One-sixty minute opacity run was performed as required in permit condition E.34 (a) 2 while the unit was operating at maximum capacity.

# 4.3 Fuel Analysis

Ongoing compliance with the fuel sulfur limit for natural gas is demonstrated by the fuel supplier's analysis reports containing the sulfur content of the fuel being supplied. Methods for determining the sulfur content of natural gas are ASTM Methods D4084-82, D3246-81, or more recent versions.

Sulfur limit of fuel oil is demonstrated by Laboratory Services analysis report containing the sulfur content of the fuel being burned. The method for determining the sulfur content of fuel oil is ASTM D-1552.

### 5.0 Test Results

The test program results are summarized in Table 7 and are discussed below. Summaries of the compliance test results for NO<sub>X</sub>, CO, and SO<sub>2</sub>, Supporting RM field data, fuel analysis reports, and calculated values are presented in Appendix F through H.

### 5.1 Unit 11

### 5.1.1 Carbon Monoxide (CO)

During the Unit 11 oil compliance test, CO emissions for the three test runs averaged 0.9 ppmvd, passing the 25 ppmvd limitation. Unit 11 CO mass emissions averaged 2.2 lbs/hr over the three test runs, passing the 79.0 lbs/hr emission limitation.

### 5.1.2 Visual Emissions

The highest opacity emissions observed in any six-minute average on Unit 11 during the one hour test run was 0.0%, passing the 10% emission limitation.

## 5.1.3 Sulfur Dioxide (SO<sub>2</sub>)

The sulfur content of the oil burned during the Unit 11 compliance test was 0.06 % of the fuel by weight, below the 0.2% maximum limitation.

# 5.1.4 Sulfuric Acid Mist (H<sub>2</sub>SO<sub>4</sub>)

The sulfur content of the oil burned during the Unit 11 compliance test was 0.06% of the fuel by weight, below the 0.2% maximum limitation.

### 5.2 Unit 12

# 5.2.1 Nitrogen Oxides (NO<sub>X</sub>)

 $NO_X$  compliance for Unit 12 is continuously determined using the CEMS. The difference between the CEMS monitor and the reference method reading for Unit 12 was 0.002 lb/mmBtu, over the nine test runs, passing the annual performance specification of 0.015 lb/mmBtu.

## 5.2.2 Carbon Monoxide (CO)

During the Unit 12 gas test, CO emissions for the three test runs averaged 6.9 ppmvd @ 15% O<sub>2</sub>, passing the 20 ppmvd  $2\,15\%$  O<sub>2</sub> limitation. Unit 12 CO mass emissions averaged 12.5 lbs/hr over the three test runs, passing the 43.0 lbs/hr emission limitation.

### 5.2.3 Visual Emissions

The highest opacity emissions observed in any six-minute average on Unit 12 during the one hour test run was 0.0%, passing the 10% emission limitation.

## 5.2.4 Sulfur Dioxide (SO<sub>2</sub>)

The sulfur content of the gas burned during the Unit 12 compliance test was 0.072 grains/100scf, below the 1.0 grains/100scf maximum limitation.

## 5.2.5 Sulfuric Acid Mist (H<sub>2</sub>SO<sub>4</sub>)

The sulfur content of the gas burned during the Unit 12 compliance test was 0.072 grains/100scf, below the 1.0 grains/100scf maximum limitation.

### 5.3 Unit 13

# 5.3.1 Nitrogen Oxides (NO<sub>X</sub>)

NO<sub>X</sub> compliance for Unit 13 is continuously determined using the CEMS. The difference between the CEMS monitor and the reference method reading for Unit 13 was 0.001 lb/mmBtu, over the nine test runs, passing the annual performance specification of 0.015 lb/mmBtu.

# 5.3.2 Carbon Monoxide (CO)

During the Unit 13 gas compliance test, CO emissions for the three test runs averaged 9.7 ppmvd @ 15% O<sub>2</sub>, passing the 20 ppmvd 2 15% O<sub>2</sub> limitation. Units 13 CO mass emissions averaged 18.0 lbs/hr over the three test runs, passing the 43.0 lbs/hr emission limitation.

#### 5.3.3 Visual Emissions

The highest opacity emissions observed in any six-minute average on Unit 13 during the one hour test run was 0.0%, passing the 10% emission limitation.

## 5.3.4 Sulfur Dioxide (SO<sub>2</sub>)

The sulfur content of the gas burned during the Unit 13 compliance test was 0.044 grains/100scf, below the 1.0 grains/100 scf maximum limitation.

## 5.3.5 Sulfuric Acid Mist (H<sub>2</sub>SO<sub>4</sub>)

The sulfur content of the gas burned during the Unit 13 compliance test was 0.044 grains/100scf, below the 1.0 grains/100 scf maximum limitation.

### 5.4 Unit 14

## 5.4.1 Nitrogen Oxides (NO<sub>X</sub>)

NO<sub>x</sub> compliance for Unit 14 is continuously determined using the CEMS. The difference between the CEMS monitor and the reference method reading for Unit 14 was 0.002 lb/mmBtu, over the nine test runs, passing the annual performance specification of 0.015 lb/mmBtu.

## 5.4.2 Carbon Monoxide (CO)

During the Unit 14 gas test, CO emissions for the three test runs averaged 3.7 ppmvd @ 15% O<sub>2</sub>, passing the 20 ppmvd  $2\,15\%$  O<sub>2</sub> limitation. Unit 14 CO mass emissions averaged 7.1 lbs/hr over the three test runs, passing the 43.0 lbs/hr emission limitation.

#### 5.4.3 Visual Emissions

The highest opacity emissions observed in any six-minute average on Unit 14 during the one hour test run was 0.0%, passing the 10% emission limitation.

### 5.4.4 Sulfur Dioxide (SO<sub>2</sub>)

The sulfur content of the gas burned during the Unit 14 compliance test was 0.072 grains/100scf, below the 1.0 grains/100 scf maximum limitation.

# 5.4.5 Sulfuric Acid Mist (H<sub>2</sub>SO<sub>4</sub>)

The sulfur content of the gas burned during the Unit 14 compliance test was 0.072 grains/100scf, below the 1.0 grains/100 scf maximum limitation.

# Table 7: Compliance Summary Progress Energy Florida Intercession City Facility Units 11 and 12

Offics 11 and 12							
Ümit	Parameter.	Measured	Limitation	Gompliance Status (Pass/Fail)			
11	Carbon Monoxide (CO)	0.9 ppmvd 02.2 lbs/hr Oil	25 ppmvd 79.0 Oil	Pass			
11	Visual Emissions	0.0%	≤10%	Pass			
11	No. 2 Fuel Oil Sulfur Content	0.06% by Weight	0.2% by Weight	Pass			
11	Sulfur Acid Mist (H <sub>2</sub> SO <sub>4</sub> )	0.06% by Weight	≤0.2% by weight Oil	Pass			
12	Nitrogen Oxides (NOx)	0.002 lb/mmBtu	Difference ≤0.020 lb/mmBtu	Pass			
12	Carbon Monoxide (CO)	6.9 ppmvd @ 15% O <sub>2</sub> 12.5 lbs/hr	20 ppmvd @ 15% O <sub>2</sub> and 43.0 lbs/hr	Pass			
12	Visual Emissions	0.0%	≤10%	Pass			
12	PNG Sulfur Content	0.072 gr./ 100scf	1 grain/100 dscf for gas	Pass			
12	Sulfur Acid Mist (H <sub>2</sub> SO <sub>4</sub> )	0.072 gr/100scf (PNG)	1 grain/100 dscf for gas	Pass			

# Table 7 (Continued): Compliance Summary Progress Energy Florida Intercession City Facility Units 13 and 14

Units 13 and 14							
Unit	Rarameter	Measured	Limitation	Compliance Status (Pass/Fail)			
13	Nitrogen Oxides (NOx)	0.001 lb/mmBtu	Difference ≤0.020 lb/mmBtu	Pass			
13	Carbon Monoxide (CO)	9.7 ppmvd @ 15% O₂ 18.0 lbs/hr	20 ppmvd @ 15% O₂ and 43.0 lbs/hr	Pass			
13	Visual Emissions	0.0%	≤10%	Pass			
13	PNG Sulfur Content	0.044 gr./ 100scf	1 grain/100 dscf for gas	Pass			
13	Sulfur Acid Mist (H <sub>2</sub> SO <sub>4</sub> )	0.044 gr/100scf (PNG)	1 grain/100 dscf for gas	Pass			
14	Nitrogen Oxides (NOx)	0.002 lb/mmBtu	Difference ≤0.020 lb/mmBtu	Pass			
14	Carbon Monoxide (CO)	3.7 ppmvd @ 15% O <sub>2</sub> 7.1 lbs/hr	20 ppmvd @ 15% O2 and 43.0 lbs/hr	Pass			
14	Visual Emissions	0.0%	≤10%	Pass			
14	PNG Sulfur Content	0.072 gr./ 100scf	1 grain/100 dscf for gas	Pass			
14	Sulfur Acid Mist (H <sub>2</sub> SO <sub>4</sub> )	0.072 gr/100scf (PNG)	1 grain/100 dscf for gas	Pass			

## Table 8: Unit 12 NOX CEMS Accuracy **Progress Energy Intercession City Facility** Unit 12

# **Relative Accuracy Determination**

Test Performed For: **Progress Energy** Intercession City Unit 12 Gas RATA

Date: 8/24/2006

Test Performed By: C.E.M. Solutions, Inc. 7990 W. Gulf to Lake Hwy. Crystal River, FL 34429

Ph: 352-564-0441

Run Number	Date of Run	Start Time	Stop Time	Unit Load MW	NO <sub>X</sub> RM lbs/mmBtu	CEM lbs/mmBtu	Difference Like lbs/mmBtu
Run 1	24-Aug	8:41:00	9:02:00	73	0.020	0.021	-0.001
Run 2	24-Aug	9:18:00	9:39:00	72	0.020	0.022	-0.002
Run 3	24-Aug	9:55:00	10:16:00	72	0.020	0.022	-0.002
Run 4	24-Aug	10:31:00	10:52:00	72	0.020	0.023	-0.003
Run 5	24-Aug	11:08:00	11:29:00	72	0.020	0.023	-0.003
Run 6	24-Aug	11:46:00	12:07:00	71	0.020	0.023	-0.003
Run 7	24-Aug	12:23:00	12:44:00	71	0.020	0.022	-0.002
Run 8	24-Aug	13:00:00	13:21:00	75	0.021	0.023	-0.002
Run 9	24-Aug	13:35:00	13:56:00	75 <sup>′</sup>	0.021	0.023	-0.002

Average:	73	0.020	0.022	-0.002 lbs/mmBtu

Blas Test (pass/fail): Low Emitter-Passed

Bias Adjustment Factor: 1.000

Method of RA Determination: Part 75, Low Emitter

Standard Deviation: 0.0007 Confidence Coefficient: 0.0005 T-Factor: 2.306

Number of runs Reported: 9

All ppm values are corrected to lbs/mmBtu NO<sub>X</sub>

using RM CO2 and CEM CO2 as diluents

Relative Accuracy: Maximum RA

0.02 **RA Status Passed** 

0.002

August 2006

# Table 9: Unit 13 NOX CEMS Accuracy Progress Energy Intercession City Facility Unit 13

# **Relative Accuracy Determination**

Test Performed For: Progress Energy Intercession City Unit 13

Gas RATA and Compliance

Date: 08/31/2006

Test Performed By: C.E.M. Solutions, Inc. 7990 W. Gulf to Lake Hwy. Crystal River, FL 34429 Ph: 352-564-0441

Dun	Data of	Charat	C4	l loit Lood	NO DM	0514	D:#
Run	Date of	Start	Stop	Unit Load	NO <sub>x</sub> RM	CEM	Difference
Number	Run	Time	Time	MW	lbs/mmBtu	ı lbs/mmBtu	Like lbs/mmBtu
Run 1	31-Aug	8:50:00	9:11:00	72	0.020	0.019	0.001
Run 2	31-Aug	9:28:00	9:49:00	72	0.020	0.019	0.001
Run 3	31-Aug	10:07:00	10:28:00	72	0.020	0.019	0.001
Run 4	31-Aug	10:45:00	11:06:00	72	0.019	0.019	0.000
Run 5	31-Aug	11:24:00	11:45:00	72	0.021	0.019	0.002
Run 6	31-Aug	12:03:00	12:24:00	72	0.021	0.019	0.002
Run 7	31-Aug	12:42:00	13:03:00	72	0.020	0.019	0.001
Run 8	31-Aug	13:22:00	13:43:00	72	0.020	0.020	0.000
Run 9	31-Aug	14:04:00	14:25:00	72	0.021	0.021	0.000
		Average:		72	0.020	0.019	0.001 lbs/mmBtu
	Rise Toet	(pass/fail):	Failed			Standard Deviation:	0.0008
		ent Factor:		•		Confidence Coefficient:	0.0006
				andard Emitt		T-Factor:	2.306
Method			, 4, , , , ,			umber of runs Reported:	9
Note:						Relative Accuracy:	7.367
All ppm values	s are correc	ted to lbs/m	nmBtu NO <sub>X</sub>			Maximum RA	10.00
using RM CO2 and CEM CO2 as diluents					RA Status	Passed	

# Table 10: Unit 14 NOX CEMS Accuracy Progress Energy Intercession City Facility Unit 14

# **Relative Accuracy Determination**

Test Performed For: Progress Energy Intercession City Unit 14

Gas RATA and Compliance

Date: 8/24/2006

Test Performed By: C.E.M. Solutions, Inc. 7990 W. Gulf to Lake Hwy. Crystal River, FL 34429 Ph: 352-564-0441

0.022

0.002 lbs/mmBtu

Run Number	Date of Run	Start Time	Stop Time	Unit Load MW	NO <sub>x</sub> RM lbs/mmBtu	CEM lbs/mmBtu	Difference Like lbs/mmBtu
Run 1	24-Aug	8:41:00	9:02:00	76	0.023	0.022	0.001
Run 2	24-Aug	9:18:00	9:39:00	76	0.024	0.021	0.003
Run 3	24-Aug	9:55:00	10:16:00	76	0.024	0.022	0.002
Run 4	24-Aug	10:31:00	10:52:00	75	0.023	0.022	0.001
Run 5	24-Aug	11:08:00	11:29:00	75	0.023	0.022	0.001
Run 6	24-Aug	11:46:00	12:07:00	74	0.023	0.022	0.001
Run 7	24-Aug	12:23:00	12:44:00	74	0.024	0.022	0.002
Run 8	24-Aug	13:00:00	13:21:00	78	0.025	0.023	0.002
Run 9	24-Aug	13:35:00	13:56:00	78	0.025	0.023	0.002

Bias Test (pass/fail): Failed Bias Adjustment Factor: 1.075	Standard Deviation: Confidence Coefficient:	0.0007 0.0005
Method of RA Determination: Part 75, Standard Emitter	T-Factor: Number of runs Reported:	2.306 9
Note: All ppm values are corrected to lbs/mmBtu NO <sub>x</sub>	Relative Accuracy: Maximum RA	<b>9.295</b> 10.00
using RM CO2 and CEM CO2 as diluents	RA Status	Passed

0.024

76

Average:

### III. EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Application - For Title V air operation permitting only, emissions units are classified as regulated, unregulated, or insignificant. If this is an application for Title V air operation permit, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each regulated and unregulated emissions unit addressed in this application for air permit. Some of the subsections comprising the Emissions Unit Information Section of the form are optional for unregulated emissions units. Each such subsection is appropriately marked. Insignificant emissions units are required to be listed at Section II, Subsection C.

Air Construction Permit or FESOP Application - For air construction permitting or federally enforceable state air operation permitting, emissions units are classified as either subject to air permitting or exempt from air permitting. The concept of an "unregulated emissions unit" does not apply. If this is an application for air construction permit or FESOP, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit subject to air permitting addressed in this application for air permit. Emissions units exempt from air permitting are required to be listed at Section II, Subsection C.

Air Construction Permit and Revised/Renewal Title V Air Operation Permit Application — Where this application is used to apply for both an air construction permit and a revised/renewal Title V air operation permit, each emissions unit is classified as either subject to air permitting or exempt from air permitting for air construction permitting purposes and as regulated, unregulated, or insignificant for Title V air operation permitting purposes. The air construction permitting classification must be used to complete the Emissions Unit Information Section of this application for air permit. A separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit subject to air permitting addressed in this application for air permit. Emissions units exempt from air construction permitting and insignificant emissions units are required to be listed at Section II, Subsection C.

If submitting the application form in hard copy, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application must be indicated in the space provided at the top of each page.

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# EMISSIONS UNIT INFORMATION Section [4] of [4]

## A. GENERAL EMISSIONS UNIT INFORMATION

## Title V Air Operation Permit Emissions Unit Classification

1.	renewal Title V air operation permit. Skip this item if applying for an air construction permit or FESOP only.)					
	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					
		d emissions unit.				
<u>En</u>	nissions Unit	Description and Sta	<u>itus</u>			
1.	Type of Emi	ssions Unit Addresse	d in this Section	: (Check one)		
		issions Unit Informat		•		
	-	or production unit, or us at least one definab	•	_	e air pollutants and	
		Emissions Unit Infor	•	,	emissions unit a	
		process or production		•		
	emission	point (stack or vent)	but may also pr	oduce fugitive emiss	ions.	
	_	issions Unit Informati			· ·	
		ocess or production un		<u>_</u>	itive emissions only.	
	<b>-</b>	of Emissions Unit Ad bine Units CT 12, CT		Section:		
CO	moustion 1 dr	ome omes C1 12, C1	15 4114 (1 14)			
3.	Emissions U	nit Identification Nur	nber: 018, 019 a	and 020		
4.	Emissions	5. Commence	6. Initial	7. Emissions	8. Acid Rain Unit?	
	Unit Status	Construction	Startup	Unit Major	X Yes	
	Code:	Date:	Date: 2001	Group SIC Code: 49	· □ No	
9.	Package Unit	<u>                                     </u>				
	•	r: General Electric		Model Number: PG7	'121 (7EA)	
10.	Generator Na	ameplate Rating: 91	MW/CT			
		nit Comment:				
					vele mode with dry low tion when firing No. 2	
		its may employ an ev	•	. •		
	•					
	•					

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### **EMISSIONS UNIT INFORMATION** [4]

Section [4]

of

### **Emissions Unit Control Equipment**

1. Control Equipment/Method(s) Description:

<u>CO</u>

Oil firing with wet injection

Gas firing with dry low-NO<sub>x</sub> controls

NO<sub>x</sub>

Oil firing with wet injection

Gas firing with dry low-NO<sub>x</sub> controls

PM/PM<sub>10</sub>

Fuel Sulfur Specification and Combustion Design

SAM/SO<sub>2</sub>

**Natural Gas Sulfur Specification** 

Low Sulfur Distillate Oil Sulfur Specification

VOC

Oil firing with Combustion Design

Gas firing with Combustion Design

2. Control Device or Method Code(s): 25, 28

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# EMISSIONS UNIT INFORMATION Section [4] of [4]

#### **B. EMISSIONS UNIT CAPACITY INFORMATION**

(Optional for unregulated emissions units.)

### **Emissions Unit Operating Capacity and Schedule**

1. Maximum Process or Throughput Rate:

2. Maximum Production Rate:

3. Maximum Heat Input Rate: 978 MMBtu/hr

4. Maximum Incineration Rate: pounds/hr

tons/day

5. Requested Maximum Operating Schedule:

24 hours/day

7 days/week

52 weeks/year

3,390 hours/year

6. Operating Capacity/Schedule Comment:

Operation of each unit shall not exceed 905 MMBtu/hr of heat input from firing natural gas or 978 MMBtu/hr of heat input from firing low sulfur distillate oil. The maximum heat inputs are based on the lower heating value (LHV) of each fuel, an inlet air temperature of 59°F, a relative humidity of 60%, an ambient air pressure of 14.7 psi, and base load.

The total turbine operating hours are not to exceed 10,170 hours during any consecutive 12 months. Each gas turbine is limited to no more than 1,000 turbine operating hours of oil firing during any consecutive 12 months. In addition, the group of three gas turbines is limited to no more than 2,500 turbine operating hours of oil firing during any consecutive 12 months.

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# C. EMISSION POINT (STACK/VENT) INFORMATION (Optional for unregulated emissions units.)

# **Emission Point Description and Type**

1.	Flow Diagram: Attach		2. Emission Poin 1	t Type Code:
3.	Descriptions of Emissi	on Points Comprising	g this Emissions Un	it for VE Tracking:
Ga	s turbine gases exhaust t	hrough a single stack	per turbine unit.	
4.	ID Numbers or Descrip	otions of Emission Un	nits with this Emissi	on Point in Common:
5.	Discharge Type Code: V	6. Stack Height 56 feet	<b>:</b>	7. Exit Diameter: 16.1 feet
8.	Exit Temperature: 993 °F	9. Actual Volum 1,436,310 ac	metric Flow Rate: fm	10. Water Vapor: %
11.	. Maximum Dry Standar dscfm	d Flow Rate:	12. Nonstack Emis feet	ssion Point Height:
13.	Emission Point UTM C Zone: East (kn North (k	n):	14. Emission Poin Latitude (DD/N Longitude (DD	· ·
	. Emission Point Commo	ent:		
EX	it temperature and flow	rate given for a single	CI at an injet temp	erature of 59 °F (oil- firing).
			1	

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# **EMISSIONS UNIT INFORMATION**

Section [4]

of [4]

### D. SEGMENT (PROCESS/FUEL) INFORMATION

# Segment Description and Rate: Segment 1 of 2

1.	Segment Description (Process/Fuel Type): Internal Combustion Engines - Electric Generation - Natural Gas - Turbine					
2.	<ol> <li>Source Classification Code (SCC):</li> <li>2-01-002-01</li> </ol>		3. SCC Units: Million Cubic Feet			
4. 0.9	Maximum Hourly Rate: 53	5. Maximum <i>i</i> 3,229	Annual Rate:	6. Estimated Annual Activity Factor:		
7.	Maximum % Sulfur:	8. Maximum 9	% Ash:	9. Million Btu per SCC Unit: 950		

### 10. Segment Comment:

Max. Hourly Rate per CT based on Baseload Maximum Heat Input, ISO conditions = 905 MMBtu/hr / 950 MMBtu / SCC

Max. Annual Rate per CT based on 3,390 hr/yr, Baseload, ISO conditions.

905 MMBtu/hr / 950 MMBtu / SCC x 3,390 hr / yr

See PSD-FL-268A, Condition III.6.

Heat Content is LHV.

### Segment Description and Rate: Segment 2 of 2

1. Segment Description (Process/Fuel Type): No. 2 Distillate Oil (or superior grade) – Backup fuel					
2. Source Classification Code (SCC):  2-01-001-01  3. SCC Units: Thousand Gallons Burned					
4. Maximum Hourly Rate: 7.44	5. Maximum 7,436	Annual Rate:	6. Estimated Annual Activity Factor:		
7. Maximum % Sulfur: 8. Maximum 0.05 0.1		% Ash:	9. Million Btu per SCC Unit: 132		
10. Segment Comment:  Max. Hourly Rate per CT based on Baseload Maximum Heat Input, ISO conditions = 978  MMRtu/br / 131 52 MMRtu / SCC					

MMBtu/hr / 131.52 MMBtu / SCC

Max. Annual Rate per CT based on 1,000 hr/yr, Baseload, ISO conditions = 978 MMBtu/hr/ 131.52 MMBtu / SCC x 1,000 hr / yr

See PSD-FL-268A, Condition III.6.

Heat Content is LHV.

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# D. SEGMENT (PROCESS/FUEL) INFORMATION (CONTINUED)

Segment Description and Rate: Segment \_ of \_

1. Segment Description (Process/Fuel Type):					
	•				
	•				
2. Source Classification Cod	e (SCC): 3. SCC Units	:			
4. Maximum Hourly Rate:	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:			
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:			
10. Segment Comment:					
Segment Description and Ra	te: Segment _ of _				
1. Segment Description (Prod	cess/Fuel Type):				
·					
2. Source Classification Code	e (SCC): 3. SCC Units				
4. Maximum Hourly Rate:	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:			
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:			
10. Segment Comment:					

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## E. EMISSIONS UNIT POLLUTANTS

# List of Pollutants Emitted by Emissions Unit

1. Pollutant Emitted	Primary Control     Device Code	Secondary Control     Device Code	Pollutant     Regulatory Code
SO <sub>2</sub>		-	EL
NO <sub>x</sub>	025	028	EL
PM			EL
PM <sub>10</sub>			EL
CO			EL
VOC			EL
SAM			EL
			·
-			
,			
			-
	<del>,</del>		•

POLLUTANT DETAIL INFORMATION
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# F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted:	2. Total Percent Efficiency of Control:
SO <sub>2</sub>	
3. Potential Emissions:	4. Synthetically Limited?
49.5 lb/hour 29.	1 tons/year x Yes No
5. Range of Estimated Fugitive Emissions (as	s applicable):
to tons/year	
6. Emission Factor: 0.05% Sulfur	7. Emissions
	Method Code:
Reference: PSD-FL-268A, Condition III.5	2
8.a. Baseline Actual Emissions (if required):	8.b. Baseline 24-month Period:
tons/year	From: To:
9.a. Projected Actual Emissions (if required):	9.b. Projected Monitoring Period:
tons/year	5 years 10 years
10. Calculation of Emissions:	
Emissions per CT; total TPY for 3 CTs = 80.1 (2,	500 hr/yr on oil, 7,670 hr/yr on gas)
Maximum havulu amiasiana hazad an inlat tamma	mature of 500F oil firing 100% load
Maximum hourly emissions based on inlet tempe	rature of 39 r, on firing, 100 % load.
Annual emission based on 2,390 hr/yr on natural	gas and 1,000 hr/yr on distillate oil; at 59°F
11 President Francisco and Association C	
11. Potential, Fugitive, and Actual Emissions Co	ominent:

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# POLLUTANT DETAIL INFORMATION Page [1] of [7]

# F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable	<b>Emissions</b>	Allowable	<b>Emissions</b>	1	of	2

1.	Basis for Allowable Emissions Code: Other	2. Future Effective Date of Allowable Emissions:					
3.	Allowable Emissions and Units:	4. Equivalent Allowable Emissions:					
	0.05% Sulfur Oil		49.5 lb/hour	29.1 tons/year			
5.	Method of Compliance: Fuel oil analysis	-					
6.	Allowable Emissions Comment (Description	of (	Operating Method):	,			
Em	ussion based on oil firing at 59°F, $100\%$ load; $1$	ΓPY	based on 1,000 hr/yr/	CT.			
PS	D-FL-268A, Condition III.37b.						
A 11	Allemanda Desirations Allemanda Desirations 2 of 2						

### Allowable Emissions 2 of 2

Basis for Allowable Emissions Code:     Other	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions:
1 grain S / 100 SCF	3.0 lb/hour 5.0 tons/year
5 Made A Committee	

5. Method of Compliance:

Fuel Analysis - Vendor Supplied

6. Allowable Emissions Comment (Description of Operating Method):
Emissions based on pineline natural gas firing at 59°F inlet temperature, 100% load

Emissions based on pipeline natural gas firing at  $59^{\circ}F$  inlet temperature, 100% load; TPY based on 3,390 hr/yr/CT.

### PSD-FL-268A Conditions III.37a and III.38.

### Allowable Emissions \_\_ of \_\_

Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions:
	lb/hour tons/year
5. Method of Compliance:	

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6. Allowable Emissions Comment (Description of Operating Method):

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# F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions
Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: NO <sub>x</sub>	2. Total Percent Efficiency of Control: 80%			
3. Potential Emissions:	4. Synth	netically Limited?		
169 lb/hour 123.5	9 tons/year x	Yes No		
5. Range of Estimated Fugitive Emissions (as	applicable):			
to tons/year				
6. Emission Factor: 42 ppmvd @ 15% O <sub>2</sub> , 3-ho		7. Emissions Method Code:		
Reference: PSD-FL-268A, Condition I		2		
8.a. Baseline Actual Emissions (if required):	8.b. Baseline 24-month	Period:		
tons/year	From:	Го:		
9.a. Projected Actual Emissions (if required):	9.b. Projected Monitori	ng Period:		
tons/year		ears		
10. Calculation of Emissions:				
Emissions per CT; total TPY for 3 CTs = 337.8 (	2,500 hr/yr on oil, 7,670 hi	r/yr on gas)		
ł	,			
Maximum hourly emissions based on inlet tempe	rature of 59°F, oil firing,	100% load.		
Maximum hourly emissions based on inlet temperature  Annual emissions based on 2,390 hr/yr on natura	<del>-</del>			
	al gas and 1,000 hr/yr on d			
Annual emissions based on 2,390 hr/yr on natura	al gas and 1,000 hr/yr on d			
Annual emissions based on 2,390 hr/yr on natura	al gas and 1,000 hr/yr on d			

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# F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – ALLOWABLE EMISSIONS

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

## Allowable Emissions 1 of 2

Basis for Allowable Emissions Code: Other	2.	Future Effective Date Emissions:	e of Allowable	
Allowable Emissions and Units:	4.	Equivalent Allowable Emissions:		
42 ppmvd @ 15% O <sub>2</sub> & 169 lb/hr		169 lb/hour	84.5 tons/year	
Method of Compliance:			· ·	
Annual Compliance Test, EPA Method 20 or	7E.			
Allowable Emissions Comment (Description	of (	perating Method):		
Lb/hr based on oil firing at 59°F, baseload; Tl	PY b	ased on 1,000 hr/yr/C'	T at 59°F, baseload;	
Compliance testing at baseload. Test required	if> 2	200 hr/yr oil firing.		
CEMs will be used to demonstrate compliance	wit	h 42 ppmvd @ 15% O	<sub>2</sub> , 24-hr block avg.	
Annual test for compliance with 42 ppmvd @ 15% O <sub>2</sub> & 169 lb/hr based on a 3-hr				
avg. PSD-FL-268A Condition III.B.17				
	Allowable Emissions and Units: 42 ppmvd @ 15% O <sub>2</sub> & 169 lb/hr  Method of Compliance: Annual Compliance Test, EPA Method 20 or Allowable Emissions Comment (Description Lb/hr based on oil firing at 59°F, baseload; To Compliance testing at baseload. Test required CEMs will be used to demonstrate compliance	Allowable Emissions and Units: 4. 42 ppmvd @ 15% O <sub>2</sub> & 169 lb/hr  Method of Compliance:  Annual Compliance Test, EPA Method 20 or 7E.  Allowable Emissions Comment (Description of CLb/hr based on oil firing at 59°F, baseload; TPY becompliance testing at baseload. Test required if a CEMs will be used to demonstrate compliance with Annual test for compliance with 42 ppmvd @ 1	Allowable Emissions and Units: 4. Equivalent Allowable 20 ppmvd @ 15% O <sub>2</sub> & 169 lb/hr  Method of Compliance:  Annual Compliance Test, EPA Method 20 or 7E.  Allowable Emissions Comment (Description of Operating Method):  Lb/hr based on oil firing at 59°F, baseload; TPY based on 1,000 hr/yr/C Compliance testing at baseload. Test required if> 200 hr/yr oil firing.  CEMs will be used to demonstrate compliance with 42 ppmvd @ 15% O  Annual test for compliance with 42 ppmvd @ 15% O <sub>2</sub> & 169 lb/hr	

## Allowable Emissions 2 of 2

1. Basi Oth	s for Allowable Emissions Code: er	2.	Future Effective Date Emissions:	e of Allowable
1	wable Emissions and Units: mvd @ 15% O <sub>2</sub>	4.	4. Equivalent Allowable Emissions: 33 lb/hour 55.9 tons/year	
	5. Method of Compliance: Annual Compliance Test, EPA Method 20 or 7E.			
Lb/l base with	6. Allowable Emissions Comment (Description of Operating Method): Lb/hr based on natural gas firing at 59°F, baseload; TPY based on 3,390 hr/yr/CT at 59°F, baseload; compliance testing at baseload. CEMs will be used to demonstrate compliance with 0 ppmvd @ 15% O <sub>2</sub> , 24-hr block avg. Annual test for compliance with 9 ppmvd @ 15% O <sub>2</sub> , and 33 lb/hr, based on a 3-hr avg.			

### Allowable Emissions \_\_ of \_\_

1. Basis for	Allowable Emissions Code:	2. Future Effective Emissions:	ve Date of Allowable
3. Allowabl	e Emissions and Units:	4. Equivalent All lb/hour	lowable Emissions: tons/year
5. Method o	f Compliance:		
6. Allowabl	e Emissions Comment (Descrip	tion of Operating Metho	od):

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# F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if

Pollutant Emitted:     PM	2. Total Percent Efficiency of Control:					
3. Potential Emissions: 10 lb/hour 1:	4. Synthetically Limited?  1 tons/year Yes No					
5. Range of Estimated Fugitive Emissions (as to tons/year	s applicable):					
6. Emission Factor: 10 lb/hr Reference: GE; Vendor Guarantee	7. Emissions Method Code: 2					
8.a. Baseline Actual Emissions (if required): tons/year	8.b. Baseline 24-month Period: From: To:					
9.a. Projected Actual Emissions (if required): tons/year	9.b. Projected Monitoring Period:  5 years 10 years					
10. Calculation of Emissions: Emissions per CT; total TPY for 3 CTs= 31.7 (2,500 hr/yr on oil, 7,670 hr/yr on gas)						
Maximum hourly emissions, oil firing, 100% load Annual emissions based on 2,390 hr/yr on natura						
11. Potential, Fugitive, and Actual Emissions Co	omment:					

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2. Future Effective Date of Allowable

# F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions	Allowable	<b>Emissions</b>	1	of	2

1.	Basis for Allowable Emissions Code: OTHER	2.	Future Effective Date of Emissions:	of Allowable
3.	Allowable Emissions and Units:	4.	Equivalent Allowable	Emissions:
	10 lb/hr		10 lb/hour	5 tons/year
5.	Method of Compliance:			
	Annual Compliance Test – EPA Method 9		•	
6.	Allowable Emissions Comment (Description	of (	Operating Method):	
	Lb/hr based on oil firing, all loads; TPY, all lo	-		
	VE< 10% opacity, 6-minute test average used	as a	surrogate for PM/PM <sub>10</sub>	compliance test.
	PSD-FL-268A Condition III.B.18			

# Allowable Emissions 2 of 2

1. Basis for Allowable Emissions Code:

	OTHER	Emissions:	
3.	Allowable Emissions and Units: 5 lb/hr	4. Equivalent Allowable Emissions: 5 lb/hour 8.5 tons/year	
5.	Method of Compliance: Annual Compliance Test - EPA Method 9		
6.	Allowable Emissions Comment (Description	n of Operating Method):	

# Allowable Emissions \_\_ of \_\_\_

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions:  lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Descr	iption of Operating Method):

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# F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: PM <sub>10</sub>	2. Total Percent Effic	iency of Control:
3. Potential Emissions:	4. Synt	thetically Limited?
10 lb/hour 11	tons/year	es No
5. Range of Estimated Fugitive Emissions (as	applicable):	
to tons/year	• • •	
6. Emission Factor: 10 lb/hr		7. Emissions
Reference: GE; Vendor Guarantee		Method Code: 2
8.a. Baseline Actual Emissions (if required):	8.b. Baseline 24-mont	h Period:
tons/year	From:	To:
9.a. Projected Actual Emissions (if required):	9.b. Projected Monitor	ing Period:
tons/year		ears
10. Calculation of Emissions: Emissions per CT; total TPY for 3 CTs= 31.7 (2,4) Maximum hourly emissions, oil firing, 100% load Annual emissions based on 2,390 hr/yr on natura	<b>i.</b>	
	•	•
11. Potential, Fugitive, and Actual Emissions Co	omment:	
		,

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2. Future Effective Date of Allowable

# F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable	Emissions	Allowable	Emiccione	1	οf	7
Alluwable	E11112210112	Allowable	ETH72210H2	1	Οī	4

1.	Basis for Allowable Emissions Code: OTHER	2.	Future Effective Dat Emissions:	e of Allowable		
3.	Allowable Emissions and Units:	4.	Equivalent Allowable Emissions:			
	10 lb/hr		10 lb/hour	5 tons/year		
5.	Method of Compliance:					
	Annual Compliance Test - EPA Method 9					
6.	6. Allowable Emissions Comment (Description of Operating Method):					
	Lb/hr based on oil firing, all loads; TPY, all load, 1,000 hr/yr/CT.					
	VE< 10% opacity, 6-minute test average used as a surrogate for PM/PM <sub>10</sub> compliance test.					
	PSD-FL-268A Condition III.B.18					

# Allowable Emissions 2 of 2

1. Basis for Allowable Emissions Code:

	OTHER	Emissions:	
3.	Allowable Emissions and Units: 5 lb/hr	4. Equivalent A 5 lb/hour	llowable Emissions: 8.5 tons/year
5.	Method of Compliance: Annual Compliance Test - EPA Method 9		
6.	Allowable Emissions Comment (Description Lb/hr based on gas firing, all loads; TPY, at VE<10% opacity, 6-minute test average use test. PSD-FL-268A Condition III.B.18	ll loads, 3,390 hr/yr/C	T.

## Allowable Emissions Allowable Emissions \_\_ of \_\_

1.	Basis for Allowable Emissions Code:	2.	Future Effective Da Emissions:	ate of Allowable
3.	Allowable Emissions and Units:	4.	Equivalent Allowable Emissions:	
	,		lb/hour	tons/year
5.	Method of Compliance:			
6.	Allowable Emissions Comment (Description	of (	Operating Method):	

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# F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if

applying for an air operation permit.					
Pollutant Emitted:     CO	2. Total Perc	ent Effici	ency of Control:		
3. Potential Emissions:		4. Synth	hetically Limited?		
	1 *				
5. Range of Estimated Fugitive Emissions (astrons/year	s applicable):				
6. Emission Factor: 20 ppmvd @ 15% O <sub>2</sub> , 3-he Reference: PSD-FL-268A Condition I	•	7. Emissions Method Code: 2			
8.a. Baseline Actual Emissions (if required):	8.b. Baseline	24-month	Period:		
tons/year From:			Го:		
9.a. Projected Actual Emissions (if required): 9.b. Projected Monito			ng Period:		
tons/year	☐ 5 years	☐ 10 years	0 years		
Emission per CT; total TPY for 3 CTs= 219.9 (2,500 hr/yr on oil, 7,670 hr/yr on gas)  Maximum hourly emissions based on inlet temperature of 59°F, oil firing, 100% load.  Annual emissions based on 2,390 hr/yr on natural gas and 1,000 hr/yr on distillate oil; at 59°F					
			· ·		
11. Potential, Fugitive, and Actual Emissions C	omment:	٠			

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# F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable	<b>Emissions</b>	Allowable	<b>Emissions</b>	1	of	2

Basis for Allowable Emissions Code:     Other	2. Future Effective Date of Allowable Emissions:			
3. Allowable Emissions and Units: 20 ppmvd @ 15% O <sub>2</sub> ,	4. Equivalent Allowable Emissions: 44 lb/hour 22 tons/year			
5. Method of Compliance: Annual Compliance Test, EPA Method 10, 3-hr average				
<ol> <li>Allowable Emissions Comment (Description of Operating Method):         Emissions based on oil firing at 59°F; TPY based on 1,000 hr/yr/CT.     </li> <li>PSD-FL-268A Condition III.B.16</li> </ol>				
Allowable Emissions Allowable Emissions 2 o	f <u>2</u>			
Basis for Allowable Emissions Code:     Other	Future Effective Date of Allowable     Emissions:			
3. Allowable Emissions and Units: 20 ppmvd @ 15% O	4. Equivalent Allowable Emissions: 43 lb/hour 72.9 tons/year			

5. Method of Compliance:
Annual Compliance Test - EPA Method 10, 3-hr average

6. Allowable Emissions Comment (Description of Operating Method): Emissions based on gas firing at 59°F; TPY based on 3,390 hr/yr/CT.

PSD-FL-268A Condition III.B.16

### Allowable Emissions \_\_ of \_\_\_

1.	Basis for Allowable Emissions Code:	2.	2. Future Effective Date of Allowable Emissions:		
3.	Allowable Emissions and Units:	4.	Equivalent Allowable lb/hour	Emissions: tons/year	
5.	Method of Compliance:				
6.	Allowable Emissions Comment (Description	of (	Operating Method):		

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# F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions
Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted:	2. Total Percent E	Efficiency of Control:		
VOC				
3. Potential Emissions:	4.	Synthetically Limited?		
5 lb/hour 4.	9 tons/year	X Yes No		
5. Range of Estimated Fugitive Emissions (as to tons/year	s applicable):			
6. Emission Factor: 4 ppmvd	•	7. Emissions		
Reference: PSD-FL-268A Condition III.B.19 Method C				
	· · · · · · · · · · · · · · · · · · ·	2		
8.a. Baseline Actual Emissions (if required):	8.b. Baseline 24-m			
tons/year	From:	To:		
9.a. Projected Actual Emissions (if required):	9.b. Projected Mor	nitoring Period:		
tons/year	5 years	10 years		
10. Calculation of Emissions: Emissions per CT; total TPY for 3 CTs = 13.9 (2) Maximum hourly emissions based on inlet temperature. Annual emissions based on 2,390 hr/yr on natural	erature of 59°F, oil fi	ring, 100% load.		
11. Potential, Fugitive, and Actual Emissions C	omment:			

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# F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

### Allowable Emissions 1 of 2

1.	Basis for Allowable Emissions Code: Other	2.	Future Effective Date Emissions:	of Allowable
3.	Allowable Emissions and Units: 4 ppmvw as methane	4.	Equivalent Allowable 5 lb/hour	Emissions: 2.5 tons/year
5.	Method of Compliance: Annual Compliance Test – EPA Method 18, 2	5/25	A.	
6.	Allowable Emissions Comment (Description Emissions based on oil firing at 59°F; TPY based if CO limits met, VOC tests not required. PSD-FL-268A Condition III.B.19		· ·	

### Allowable Emissions 2 of 2

1.	Basis for Allowable Emissions Code: Other	2.	Future Effective Da Emissions:	ate of Allowable
3.	Allowable Emissions and Units: 2 ppmvw as methane	4.	Equivalent Allowal 2 lb/hour	ole Emissions: 3.4 tons/year
5.	Method of Compliance: Annual Compliance Test, EPA Method 18, 25	5 and	/or 25A.	· .

### Allowable Emissions Allowable Emissions \_\_ of \_\_\_

1.	Basis for Allowable Emissions Code:	2. Future Effective Date of Allowabl Emissions:		
3.	Allowable Emissions and Units:	4. Equivalent Allowable Emi lb/hour t		ble Emissions: tons/year
5.	Method of Compliance:			
6.	Allowable Emissions Comment (Description	on of (	perating Method):	

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# EMISSIONS UNIT INFORMATION Section [4] of [4]

POLLUTANT DETAIL INFORMATION
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# F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS

(Optional for unregulated emissions units.)

Potential, Estimated Fugitive, and Baseline & Projected Actual Emissions
Complete for each pollutant identified in Subsection E if applying for an air construction
permit or concurrent processing of an air construction permit and a revised or renewal
Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if
applying for an air operation permit.

SAM	2. Total Percent Efficiency of Control:			
3. Potential Emissions: 5.5 lb/hour 2.	9 tons/year		netically Limited? Tes  No	
5. Range of Estimated Fugitive Emissions (as to tons/year	s applicable):			
6. Emission Factor: 0.05% Sulfur Oil Reference: PSD-FL-268A Condition I	П.В.5		7. Emissions Method Code: 2	
8.a. Baseline Actual Emissions (if required): tons/year	8.b. Baseline From:		Period:	
9.a. Projected Actual Emissions (if required): tons/year	9.b. Projected  5 years		ng Period:	
Maximum hourly emissions based on inlet temper	motures of 50°E	- 11 (**		
Annual emissions based on 2,390 hr/yr on natura			· .	
			· .	
			· .	
	ll gas and 1,000			
Annual emissions based on 2,390 hr/yr on natura	ll gas and 1,000			

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# F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

1.	Basis for Allowable Emissions Code: Other	2.	Future Effective Date Emissions:	e of Allowable
3.	Allowable Emissions and Units:	4.	Equivalent Allowable	e Emissions:
	0.05% Sulfur Oil		5.5 lb/hour	2.75 tons/year
5.	Method of Compliance:			
	Fuel Oil Analysis			
6.	Allowable Emissions Comment (Description			
	Emissions based on oil firing at 59°F; TPY base			
	Fuel analysis as compliance method, may be v PSD-FL-268A Condition III.B.37B	endo	or supplied.	
	PSD-FL-200A Condition III.D.3/D			

#### Allowable Emissions 2 of 2

1.	Basis for Allowable Emissions Code: Other	2. Future Effective Date of Allowable Emissions:		
3.	Allowable Emissions and Units: 1 grain S / 100 CF	4.	Equivalent Allowable E 2 lb/hour	Emissions: 3.4 tons/year
5.	Method of Compliance: Fuel analysis		***	
	Allowable Emissions Comment (Description Fuel analysis as compliance method, may be very PSD-FL-268A Condition III.B.37b, 40 CFR 60	endo	or supplied.	dix D

### Allowable Emissions Allowable Emissions \_\_ of \_\_

1.	Basis for Allowable Emissions Code:	2.	Future Effective Date of Emissions:	f Allowable
3.	Allowable Emissions and Units:	4.	Equivalent Allowable E lb/hour	missions: tons/year
5.	Method of Compliance:			
6.	Allowable Emissions Comment (Description	of (	Operating Method):	

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## G. VISIBLE EMISSIONS INFORMATION

Complete if this emissions unit is or would be subject to a unit-specific visible emissions limitation.

<u>Visible Emissions Limitation:</u> Visible Emissions Limitation <u>1</u> of <u>1</u>

1.	Visible Emissions Subtype:	2.	Basis for Allowab	le Opacity:
	VE10		x Rule	Other
3.				
	Normal Conditions: 10 %		Exceptiona	ll Conditions:
	Maximum Period of Excess Opacity Allowe	ed:	2 hr/24	hr
4.	Method of Compliance:			
,	Annual Compliance Test, EPA Method 9.			
-			·	·
5.	Visible Emissions Comment:		24 h 64	
	FDEP Rule 62-210.700(1); Allowed for 2 hou malfunction.	ırs p	er 24 nours for star	t-up, snutdown and
	Mananchon.			
	Rule 62-296.310(2)(a). No VE test < 400 hr/y	r exc	ept for period of on	e year preceding permit
	renewal date. [Rule 62-297.310(7)(a)8]			
Vis	sible Emissions Limitation: Visible Emission	ons l	_imitation of _	
1.	Visible Emissions Subtype:	2.	Basis for Allowabl	e Opacity:
	VE 99		X Rule	Other
3.	Allowable Opacity:			<del></del>
	Normal Conditions: % Ex	cept	ional Conditions:	100%
	Maximum Period of Excess Opacity Allowe	d:		2 hr/24 hr
4.	Method of Compliance:			-
	Best Operational Practices			
	· · · · · · · · · · · · · · · · · · ·			<del> </del>
5.	Visible Emissions Comment:		041	
	FDEP Rule 62-210.700(1); Allowed for 2 hou malfunction.	rs pe	er 24 hours for start	-up, shutdown and
	manunction.			
			•	

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## H. CONTINUOUS MONITOR INFORMATION

Complete if this emissions unit is or would be subject to continuous monitoring.

Continuous Monitoring System: Continuous Monitor 1 of 1

1.	Parameter Code: EM	2. Pollutant(s): NO <sub>x</sub>
3.	CMS Requirement:	x Rule
4.	Monitor Information Manufacturer:	
	Model Number:	Serial Number:
5.	Installation Date:	6. Performance Specification Test Date:
7.	Continuous Monitor Comment: CEM will operate to monitor and record emisdemonstrate compliance with the standards in	issions of nitrogen oxides (NOx) in order to in the permit. CEM complies with 40 CFR 75.
<u>Co</u>	ntinuous Monitoring System: Continuous	Monitor 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:	

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#### H. CONTINUOUS MONITOR INFORMATION (CONTINUED)

Complete if this emissions unit is or would be subject to continuous monitoring.

Continuous Monitoring System: Continuous Monitor \_\_\_ 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: Continuous Monitoring System: Continuous Monitor \_\_\_\_ 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:

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#### **EMISSIONS UNIT INFORMATION**

108DEP Form No. 62-210.900(1) - Form

### I. EMISSIONS UNIT ADDITIONAL INFORMATION

## Additional Requirements for All Applications, Except as Otherwise Stated

[4]

1.	Process Flow Diagram (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)  X Attached, Document ID: IC-EU2-I1 Previously Submitted, Date
2.	Fuel Analysis or Specification (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)  X Attached, Document ID: IC-EU4-I2 Previously Submitted, Date
3.	Detailed Description of Control Equipment (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)  X Attached, Document ID: IC-EU2-I3 Previously Submitted, Date
4.	Procedures for Startup and Shutdown (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)  X Attached, Document ID: IC-EU2-I4 Previously Submitted, Date  Not Applicable (construction application)
5.	Operation and Maintenance Plan (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)  Attached, Document ID:  Previously Submitted, Date  Not Applicable
6.	Compliance Demonstration Reports/Records  X Attached, Document ID: IC-EU1-I6  Test Date(s)/Pollutant(s) Tested: (02/07) - Opacity, SO <sub>2</sub> /SAM, NO <sub>3</sub> , CO  Previously Submitted, Date: IC-EU3-I6 (08/06)
	Test Date(s)/Pollutant(s) Tested:  To be Submitted, Date (if known):  Test Date(s)/Pollutant(s) Tested:  Not Applicable  Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.
7.	Other Information Required by Rule or Statute  Attached, Document ID: x Not Applicable

109DEP Form No. 62-210.900(1) - Form Effective: 2/2/06

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## **EMISSIONS UNIT INFORMATION**

Section [4]

of [4]

Additional 1	Requireme	nts for Air	Construction	Permit A	Applications	- N/A

1. Control Technology Review and Analysis (Rules 62-212.400(10) and 62-212.500(7),
F.A.C.; 40 CFR 63.43(d) and (e))
Attached, Document ID: Not Applicable
2. Good Engineering Practice Stack Height Analysis (Rule 62-212.400(4)(d), F.A.C., and Rule 62-212.500(4)(f), F.A.C.)
Attached, Document ID: Not Applicable
3. Description of Stack Sampling Facilities (Required for proposed new stack sampling facilities only)
Attached, Document ID: Not Applicable
Additional Requirements for Title V Air Operation Permit Applications
Identification of Applicable Requirements     X Attached, Document ID: IC-EU1-IV1
2. Compliance Assurance Monitoring  Attached, Document ID: x Not Applicable
3. Alternative Methods of Operation  X Attached, Document ID: IC-EU1-IV3  Not Applicable
4. Alternative Modes of Operation (Emissions Trading)  Attached, Document ID: X Not Applicable
5. Acid Rain Part Application    X   Certificate of Representation (EPA Form No. 7610-1)   X   Copy Attached, Document ID: IC-EU2-IV5   X   Acid Rain Part (Form No. 62-210.900(1)(a))   X   Attached, Document ID: IC-EU2-IV5   Previously Submitted, Date:   Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.)   Attached, Document ID:   Previously Submitted, Date:   Phase II NOx Averaging Plan (Form No. 62-210.900(1)(a)5.)   Attached, Document ID:   Previously Submitted, Date:   Phase II NOx Averaging Plan (Form No. 62-210.900(1)(a)5.)   Attached, Document ID:   Previously Submitted, Date:   Previ
Additional Requirements Comment

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Attachment IC-EU4-I2 Fuel Analysis Fuel Oil 06/22/2007 073-89506

#### Attachment IC-EU4-I2 Fuel Analysis or Specification Emission Unit 4- Natural Gas

The values listed are "typical" values based upon information supplied to FPC by Florida Gas Transmission (FGT). However, analytical results from grab samples of fuel taken at any given point in time may vary from those listed.

Parameter	Typical Value	Max. Value
Relative density	0.58 (compared to air)	
Heat content	950-1,124 Btu/cu ft.	
% sulfur	0.43 grains/CCF1	1 grain/100 CF
% nitrogen	0.8% by volume	
% ash	negligible	

Notes:

Data from laboratory analysis

### **ATTACHMENT IC-EU4-12** Fuel Analysis or Specification Emission Unit 4 - No.2 Fuel Oil

The values listed are "typical" values based upon 1) information gathered by laboratory analysis, and 2) FPC's fuel purchasing specifications. However, analytical results from grab samples of fuel taken at any given point in time may vary from those listed.

Parameter	Typical Value	Max. Value
API gravity @ 60°F	301	
Relative density	7.1 lb/gal <sup>2</sup>	
Heat content	19,500 Btu/lb (HHV)	
% sulfur		0.05
% nitrogen	0.025-0.03	
% ash	negligible	0.1

Notes:
Data taken from the FPC fuel procurement specification

<sup>&</sup>lt;sup>2</sup> Data from laboratory analysis

# Air Emissions Compliance Test Report

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Progress Energy
Intercession City Facility
Units 7, 8, 9 and 10
Intercession City, Florida

C.E.M. Solutions Project No. 2697

Testing Completed: August 2006

Client Purchase Order Number: 49782 C.E.M. Solutions, Inc Report Number: 20-2697-07080910-001

> C.E.M. Solutions, Inc. 7990 W. Gulf to Lake Hwy. Crystal River, Florida 34429 Phone: 352-564-0441

# Project Background

Name of Source Owner:

Progress Energy

Address of Owner:

One Power Plaza 100 Central Ave

St. Petersburg, Florida 33701

Source Identification:

Oris Code: 8049 Facility ID: 0970014

Emissions Unit -007, -008, -009, -010

Location of Source:

Osceola County, Florida

Type of Operation:

SIC Code: 4911

Tests Performed:

Method 1 - Traverse Points

Method 3A - Determination of Oxygen and Carbon Dioxide

Method 7E - Determination of Nitrogen Oxides Method 9 - Visual Determination of Opacity Method 10 - Determination of Carbon Monoxide

Method 19 - Determination of Nitrogen Oxide Emissions Rates

ASTM D-240 - Fuel Analysis (by others)

ASTM D-1552 - Sulfur in Petroleum Products (by others)

Test Supervisor:

Mr. Joseph Conti

Date(s) Tests Conducted:

August 22, 2006: Gas RATA and Compliance, Units 8 and 10

August 23, 2006: Oil Compliance, Units 8 and 10 August 28, 2006: Oil Compliance, Units 7 and 9

August 29, 2006: Gas RATA and Compliance, Units 7 and 9

Site Test Coordinator:

Mr. James T. Long

State Regulatory Observers:

No Observers Present

Attachment IC-EU2-I6
Compliance Demonstration

06/26/07 073-89506

# ATTA CHMENT IC-EU2-I4 PROCEDURES FOR STARTUP/SHUTDOWN

Startup and shutdown for these units are fully automatic.

Startup for the combustion turbine begins with "lighting off" of the machines on distillate oil.

Corrective actions may include switching the unit from automatic (remote) to local control, or changing fuel. Best Operating Practices are adhered to and all efforts to minimize both the level and duration of excess emissions are undertaken.

Shutdown is performed by reducing the unit load (electrical production) to a minimum level, opening the breaker (which disconnects the unit from the system electrical grid), shutting off the fuel and coasting down to stop. The CT is then put "on turning gear" to prevent possible disfiguration of the turbine components.

Attachment IC-EU2-I4
Procedures for Startup/Shutdown

06/26/07 073-89506

#### **ATTACHMENT IC-EU2-I3**

#### DETAILED DESCRIPTION OF CONTROL EQUIPMENT

The GE Mark IV NO<sub>x</sub> control algorithm utilizes data from digital temperature and humidity monitors located at each combustion turbine. The algorithm receives and processes the ambient temperature and humidity on a continuous basis. A temperature/humidity correction is used in determining the amount of water to inject for NO<sub>x</sub> control. The correction accounts for the ambient water entering the combustion chamber, and then it adds the correct amount of injection water in order to ensure compliance with the unit's required water-to-fuel ratio as determined from the water/fuel curve. This algorithm ensures compliance on a continuous basis regardless of the unit load and ambient weather conditions.

Attachment IC-EU2-I3
Detailed Description of
Control Equipment

### Attachment IC-EU2-I2 Fuel Analysis or Specification Emission Unit 2 and 3 - Natural Gas

The values listed are "typical" values based upon information supplied to FPC by Florida Gas Transmission (FGT). However, analytical results from grab samples of fuel taken at any given point in time may vary from those listed.

Parameter	Typical Value	Max. Value
Relative density	0.58 (compared to air)	
Heat content	950-1,124 Btu/cu ft.	
% sulfur	0.43 grains/CCF <sup>1</sup>	1 grain/100 CF
% nitrogen	0.8% by volume	
% ash	negligible	

Notes:

Data from laboratory analysis

#### Attachment IC-EU2-I2 Fuel Analysis or Specification Emission Unit 2 and 3 - No.2 Fuel Oil

The values listed are "typical" values based upon 1) information gathered by laboratory analysis, and 2) FPC's fuel purchasing specifications. However, analytical results from grab samples of fuel taken at any given point in time may vary from those listed.

Parameter	Typical Value	Max. Value	
API gravity @ 60°F	301		
Relative density	7.02 lb/gal <sup>2</sup>		
Heat content	18,400 Btu/lb (LHV)		
% sulfur	0.2 <sup>2</sup>	0.23	
% nitrogen	0.025-0.03		
% ash	negligible	0.01	

# Notes:

<sup>1</sup> Data taken from the FPC fuel procurement specification <sup>2</sup> Data from laboratory analysis

<sup>3</sup> Data from current air permit

Attachment IC-EU2-I2 Fuel Analysis Fuel Oil

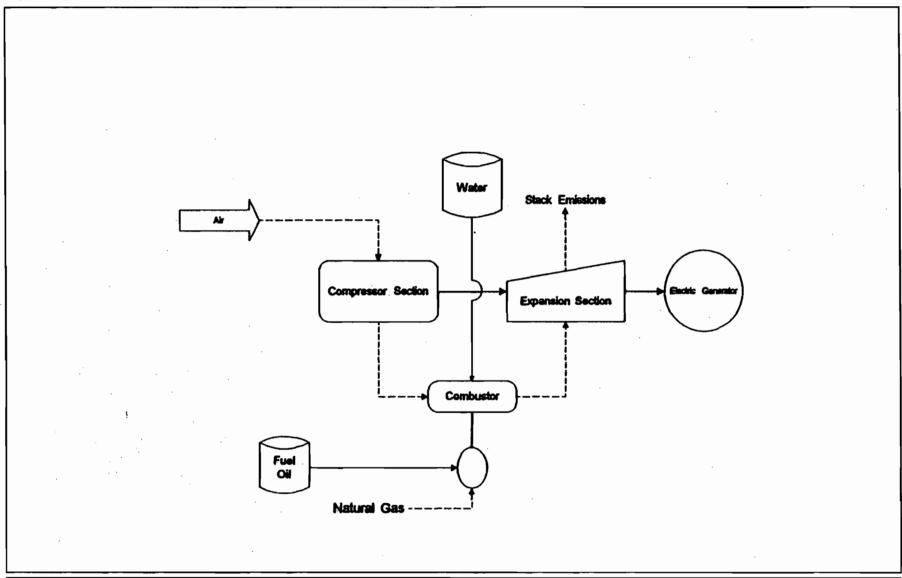


Figure IC-EU2-I1. Process Flow Diagram Emission Units 7,8,9,10, and 11 Florida Power - Intercession City

Source: Golder Associates Inc., 2002.

Process Flow Legend
Solid/Liquid 
Gas
Steam



Attachment IC-EU2-I1 Process Flow Diagram

# EMISSIONS UNIT INFORMATION Section [2] of [4]

### I. EMISSIONS UNIT ADDITIONAL INFORMATION

### Additional Requirements for All Applications, Except as Otherwise Stated

	1.	Process Flow Diagram (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)            x         Attached, Document ID:         IC-EU2-I1         Previously Submitted, Date
	2.	Fuel Analysis or Specification (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)  X Attached, Document ID: IC-EU2-I2 Previously Submitted, Date
	3.	Detailed Description of Control Equipment (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)  X Attached, Document ID: IC-EU2-I3 Previously Submitted, Date
	4.	Procedures for Startup and Shutdown (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)  X Attached, Document ID: IC-EU2-I4 Previously Submitted, Date  Not Applicable (construction application)
	5.	Operation and Maintenance Plan (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)  Attached, Document ID: Previously Submitted, Date  Not Applicable
	6.	Compliance Demonstration Reports/Records  x Attached, Document ID: IC-EU2-I6
l		Test Date(s)/Pollutant(s) Tested: (08/06) - Opacity, NO <sub>x</sub> , SO <sub>2</sub> /SAM, CO
l		Previously Submitted, Date:
		Test Date(s)/Pollutant(s) Tested:
		To be Submitted, Date (if known):
l		Test Date(s)/Pollutant(s) Tested:
		□ Not Applicable
		Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.
	7.	Other Information Required by Rule or Statute
		Attached, Document ID: X Not Applicable

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### **EMISSIONS UNIT INFORMATION**

Section [2]

of [4]

Additional Requirements for Air Construction Permit Applications -N/A
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1. Control Technology Review and Analysis (Rules 62-212.400(10) and 62-212.500(7),
F.A.C.; 40 CFR 63.43(d) and (e))
Attached, Document ID: Not Applicable
2. Good Engineering Practice Stack Height Analysis (Rule 62-212.400(4)(d), F.A.C., and Rule 62-212.500(4)(f), F.A.C.)  Attached, Document ID: Not Applicable
3. Description of Stack Sampling Facilities (Required for proposed new stack sampling facilities only)
Attached, Document ID: Not Applicable
Additional Requirements for Title V Air Operation Permit Applications
1. Identification of Applicable Requirements  x Attached, Document ID: IC-EU1-IV1
2. Compliance Assurance Monitoring  Attached, Document ID: X Not Applicable
3. Alternative Methods of Operation  x Attached, Document ID: IC-EU1-IV3  Not Applicable
4. Alternative Modes of Operation (Emissions Trading)  Attached, Document ID: X Not Applicable
5. Acid Rain Part Application    X   Certificate of Representation (EPA Form No. 7610-1)   X   Copy Attached, Document ID: IC-EU2-IV5   X   Acid Rain Part (Form No. 62-210.900(1)(a))   X   Attached, Document ID: IC-EU2-IV5   Previously Submitted, Date:   Previously Submitted,
Additional Requirements Comment

55DEP Form No. 62-210.900(1) - Form